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APPENDICES

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October 2021 | Draft Environmental Impact Report
State Clearinghouse No. 2020080350

MALIBU MIDDLE AND HIGH SCHOOL CAMPUS SPECIFIC PLAN

for Santa Monica-Malibu Unified School District

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PLACEWORKS

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ABBREVIATIONS AND ACRONYMS

AAQS	ambient air quality standards
AB	Assembly Bill
ACM	asbestos-containing materials
ADT	average daily traffic
amsl	above mean sea level
AQMD	air quality management district
AQMP	air quality management plan
AR4	*Fourth Assessment Report: Climate Change 2007* (Intergovernmental Panel on Climate Change)
AST	aboveground storage tank
BAU	business as usual
bgs	below ground surface
BMP	best management practices
CAA	Clean Air Act
CAFE	corporate average fuel economy
CalARP	California Accidental Release Prevention Program
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal OES	California Office of Emergency Services
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act

Abbreviations and Acronyms

CFC	California Fire Code
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGS	California Geologic Survey
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
Corps	US Army Corps of Engineers
CSO	combined sewer overflows
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DEIR	draft environmental impact report
DMA	drainage management area
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EDR	Environmental Data Resources
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	environmental site assessment
ESHA	environmentally sensitive habitat area
FEMA	Federal Emergency Management Agency
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GHG	greenhouse gases
GWP	global warming potential
HCM	Highway Capacity Manual
HQTA	high quality transit area
HSC	California Health and Safety Code

Abbreviations and Acronyms

HVAC	heating, ventilating, and air conditioning system
IFC	International Fire Code
IPCC	Intergovernmental Panel on Climate Change
IS/NOP	initial study / notice of preparation (CEQA documents)
JCES	Juan Cabrillo Elementary School
kW	kilowatt
L_{dn}	day-night noise level
L_{eq}	equivalent continuous noise level
LACoFD	Los Angeles County Fire Department
LASD	Los Angeles County Sheriff's Department
LBP	lead-based paint
LCFS	low-carbon fuel standard
LIP	local implementation plan (for local coastal program)
LOS	level of service
LRA	local responsibility area (CAL FIRE)
LST	localized significance thresholds
LUP	land use plan (for local coastal program)
M_W	moment magnitude
MCL	maximum contaminant level
MEP	maximum extent practicable
mgd	million gallons per day
MMHS	Malibu Middle and High School
MMT	million metric tons
MPO	metropolitan planning organization
MT	metric ton
MWD	Metropolitan Water District of Southern California
NAHC	Native American Heritage Commission
NO_X	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
O_3	ozone
OSFM	Office of the State Fire Marshal
OSHA	Occupational Safety and Health Administration (US)
PCB	polychlorinated biphenyls

Abbreviations and Acronyms

PCH	Pacific Coast Highway
PEA	preliminary environmental assessment
PM	particulate matter
POTW	publicly owned treatment works
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PV	photovoltaic
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RMP	risk management plan
RMS	root mean square
RPS	renewable portfolio standard
RTP/SCS	regional transportation plan / sustainable communities strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SIP	state implementation plan
SLM	sound level meter
SMMUSD	Santa Monica–Malibu Unified School District
SoCAB	South Coast Air Basin
SO_X	sulfur oxides
SQMP	stormwater quality management plan
SRA	source receptor area (air quality)
SRA	state responsibility area (wildfire)
SUSMP	standard urban stormwater mitigation plan
SVOC	semivolatile organic compound
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TNM	transportation noise model
tpd	tons per day

Abbreviations and Acronyms

TRI	toxic release inventory
TTCP	traditional tribal cultural places
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	urban water management plan
VdB	velocity decibels
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WQMP	water quality management plan
WSA	water supply assessment
ZE/NZE	zero emissions / near-zero emissions

Abbreviations and Acronyms

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1. Executive Summary

1.1 INTRODUCTION

This Draft Environmental Impact Report (DEIR) addresses the environmental effects associated with the implementation of the proposed Malibu Middle and High School Campus Specific Plan Project (Proposed Project). The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before taking action on projects over which they have discretionary approval authority. An Environmental Impact Report (EIR) analyzes potential environmental consequences in order to inform the public and support informed decisions by local and state governmental agency decision makers. This document focuses on impacts determined to be potentially significant in the Initial Study/Notice of Preparation (IS/NOP) completed for the Proposed Project (see Appendix B).

This DEIR has been prepared pursuant to the requirements of CEQA and the Santa Monica–Malibu Unified School District's (SMMUSD or District) CEQA procedures. The District, as the lead agency, has reviewed and revised all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgment, including reliance on City of Malibu technical personnel and review of all technical subconsultant reports.

Data for this DEIR are derived from on-site field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data, and similar literature; and specialized environmental assessments (aesthetics, air quality, biological resources, cultural resources, energy, geological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use, noise, public services, recreation, transportation, utilities and service systems, and wildfire).

1.2 ENVIRONMENTAL PROCEDURES

This DEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the Proposed Project as well as anticipated future discretionary actions and approvals. CEQA established six main objectives for an EIR:

1. Disclose to decision makers and the public the significant environmental effects of proposed activities.
2. Identify feasible ways to avoid or reduce environmental damage.
3. Prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. Disclose to the public reasons for agency approval of projects with significant environmental effects.
5. Foster interagency coordination in the review of projects.
6. Enhance public participation in the planning process.

1. Executive Summary

An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a Proposed Project with the potential to result in significant, adverse environmental impacts.

An EIR is one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Before approving a Proposed Project, the lead agency must consider the information in the EIR; determine whether the EIR was prepared in accordance with CEQA and the CEQA Guidelines; determine that it reflects the independent judgment of the lead agency; adopt findings concerning the project's significant environmental impacts and alternatives; and adopt a statement of overriding considerations if significant impacts cannot be avoided.

1.2.1 EIR Format

Chapter 1. Executive Summary: Summarizes the background and description of the Proposed Project, the format of this EIR, Project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the Proposed Project.

Chapter 2. Introduction: Describes the purpose of this EIR, background on the Proposed Project, overview of the IS/NOP process, the use of incorporation by reference, and Final Environmental Impact Report (FEIR) certification.

Chapter 3. Project Description: Contains a detailed description of the Proposed Project, including its objectives, its area and location, approvals anticipated to be required as part of the Proposed Project, necessary environmental clearances, and the intended uses of this EIR.

Chapter 4. Environmental Setting: Includes a description of the physical environmental conditions in the vicinity of the Proposed Project as they existed at the time the IS/NOP was published, from local and regional perspectives. This provides the baseline physical conditions from which the lead agency determines the significance of the Proposed Project's environmental impacts.

Chapter 5. Environmental Analysis: Each environmental topic is analyzed in a separate section that discusses the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the Proposed Project; the existing environmental setting; the potential adverse and beneficial effects of the Proposed Project; the level of impact significance before mitigation; the mitigation measures for the Proposed Project; the level of significance after mitigation is incorporated; and the potential cumulative impacts of the Proposed Project and other existing, approved, and proposed development in the area.

Chapter 6. Other CEQA Consideration: Describes the significant unavoidable adverse impacts of the Proposed Project and any significant irreversible environmental changes associated with the Proposed Project; the potential impacts of the Proposed Project that were determined not to be significant by the IS/NOP and were therefore not discussed in detail in this EIR; and the ways in which the Proposed Project would cause increases in employment or population that could result in new physical or environmental impacts.

Chapter 7. Alternatives to the Proposed Project: Describes the alternatives and compares their impacts to the impacts of the Proposed Project. Alternatives include the No Project Alternative and a Reduced Intensity Alternative.

Chapter 8. List of Preparers: Lists the people who prepared this EIR and organizations that were contacted during the preparation of this EIR.

Appendices: The appendices for this document (in PDF format on a CD attached to the front cover) comprise these supporting documents:

- Appendix A: Malibu Middle and High School Campus Specific Plan
- Appendix B: Initial Study (IS)/Notice of Preparation (NOP)
- Appendix C: IS/NOP Comments
- Appendix D: Air Quality and Greenhouse Emissions Data
- Appendix E: Construction Health Risk Assessment Background and Modeling Data
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- Appendix K: Noise Modeling Worksheets
- Appendix L: Public Service Letters Responses
- Appendix M: Transportation Impact Assessment

1.2.2 Type and Purpose of this DEIR

This DEIR contains both a project level and a programmatic level of review. Phase 1 of the Proposed Project is analyzed at a project level of detail consistent with CEQA Guidelines § 15161 and considers the changes in the environment that would result during construction and operation of the Proposed Project. Phases 2 through 4, which are considered a series of actions that can be characterized as one project, are analyzed at a programmatic level, consistent with CEQA Guidelines § 15168. As defined in CEQA Guidelines § 15168(b), the use of a program EIR can provide for a more exhaustive consideration of effects and alternatives than would be practical for an individual action; ensure consideration of cumulative impacts, avoid duplicative reconsideration of basic policy considerations; allow the lead agency to consider broad policy alternatives and programwide mitigation measures at an early time; and reduce paperwork.

Consistent with the requirements set forth in CEQA Guidelines § 15168(c), later activities (i.e., Phases 2 through 4) would be examined in light of the information in this DEIR to determine whether an additional environmental document must be prepared. It is the intent of the District to use this DEIR for later phases to determine whether additional tiered analysis is necessary under § 15152 of the CEQA Guidelines. Factors to be used in determining whether subsequent environmental review is required include but are not limited to

consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed, and covered infrastructure described in this DEIR.

1.3 PROJECT LOCATION

The SMMUSD property is at 30215 Morning View Drive (Assessor's Parcel Numbers (APN) 4469-017-900, 4469-018-900, 4469-018-901, 4469-018-902, 4469-018-903, 4469-018-904, 4469-019-900, 4469-019-901, and 4469-019-902) in the City of Malibu, Los Angeles County, California (see Figure 3-1, *Regional Location*). The SMMUSD property consists of approximately 87 acres on nine parcels and includes the existing Malibu Equestrian Park on the eastern part of the property, the existing Malibu Middle and High School (MMHS) campus in the center, and the former Juan Cabrillo Elementary School (JCES) campus in the west. The Project Site is situated on three of the nine parcels—APNs 4469-017-900 (40.06 acres), 4469-018-900 (9.4 acres), and 4459-018-904 (2.57 acres)—and the total acreage of the Project Site is 52.03 acres. The majority of the Malibu Middle and High School Campus Specific Plan Project (Proposed Project) would be developed on the existing MMHS campus and the former JCES campus, and one component would be in the Malibu Equestrian Park. The Project Site is set amid rolling hills, and its buildings and athletic fields are terraced into the hillside setting. The Project Site is in the City of Malibu Institutional (I) Zoning District that authorizes public educational institutions with a conditional use permit.

The Project Site is approximately 0.25 mile northeast of the Pacific Coast Highway (PCH) and Zuma Beach, and is bounded by Merritt Drive to the east, Via Cabrillo Street to the west, and Morning View Drive to the south (Figure 3-2, *Local Vicinity)*. Single-family homes border the Project Site to the north (Figure 3-3, *Aerial Photograph*).

1.4 PROJECT SUMMARY

The Proposed Project would redevelop and modernize the existing MMHS campus and former JCES campus to create generally three separate and distinct areas: Middle School Core, High School Core, and shared facilities. Implementation of the Proposed Project would result in demolition of all 7 buildings and 9 portables on the former JCES campus and 6 buildings and associated amenities on the MMHS campus, totaling 154,904 square feet of demolition. The existing 25-meter lighted, outdoor pool complex would be demolished, and new 50-meter lighted, outdoor pool complex would be developed. The existing Building E and Buildings A/B at the Project Site would remain, and all other structures would be removed (see Figure 3-4*, Proposed Site Plan*). No changes to the existing main football/track sports field, baseball, or softball fields would be made with the exception of minor improvements, including the development of new field houses and additional parking adjacent to the softball field. The Proposed Project would relocate the existing on-campus Bus Barn to a disturbed location on the adjacent, District-owned Malibu Equestrian Park. It would also include restoration in the campus-adjacent Environmentally Sensitive Habitat Area (ESHA) and establishment of a new trail along the ESHA that would connect to the existing, larger trail network around the campus. As shown in Table 3-2, *Summary of Total Development*, the Proposed Project would result in 32 classrooms, 8 labs and maker spaces, and support spaces—a total of 173,595 square feet of building space, providing the middle/high school campus with a total of 51 classrooms and 12 labs and a total of 222,425 square feet of building space.

1.5 SUMMARY OF PROJECT ALTERNATIVES

CEQA Guidelines § 15126.6 requires that an EIR describe a range of reasonable alternatives to a project that could feasibly attain the basic objectives of a project and avoid or lessen the environmental effects of a project. While the District considered various options and recommendations during the scoping process, the final selection of alternatives was based on the CEQA Guidelines § 15126.6[f], which states that the selection of alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.

Based on the criteria listed in Chapter 7, *Alternatives*, the following three alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the Proposed Project but may avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in the following sections.

- Alternative 1: No-Project Alternative
- Alternative 2: Phases 1 and 2 Only
- Alternative 3: Elimination of Parking Lot F

1.6 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

1.6.1 No-Project Alternative

CEQA Guidelines § 15126.6(e) requires that a "No Project" Alternative be evaluated. This analysis must discuss the existing site conditions as well as what would be reasonably expected to occur in the foreseeable future if the Proposed Project were not approved.

1.6.2 Alternative 1: Phases 1 and 2 Only

Under this alternative, the Proposed Project would be limited to those activities included in Phases 1 and 2 only. Phases 3 and 4 would not be developed.

1.6.3 Alternative 2: Elimination of Parking Lot F

Under this alternative, the Proposed Project would still be developed with the exception that Parking Lot F, on the north end of the MMHS campus, would be eliminated. This alternative results in 14 fewer vehicle parking spaces compared to the Proposed Project.

1.7 ISSUES TO BE RESOLVED

The CEQA Guidelines § 15123(b)(3) requires that an EIR contain issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the Proposed Project, the major issues to be resolved include decisions by the lead agency as to:

1. Whether this DEIR adequately describes the potentially significant environmental impacts of the Proposed Project.
2. Whether the benefits of the Proposed Project override those potentially significant environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the identified goals, policies, or mitigation measures should be adopted or modified.
5. Whether there are other mitigation measures that should be applied to the Proposed Project besides the mitigation measures identified in the DEIR.
6. Whether there are any alternatives to the Proposed Project that would substantially lessen any of the potentially significant impacts of the Proposed Project and achieve most of the basic Proposed Project objectives.

1.8 AREAS OF CONTROVERSY

On August 20, 2020, SMMUSD issued an IS/NOP for the Proposed Project. The scoping period for this IS/NOP was between August 20, 2020, and September 21, 2020, during which interested agencies and the public could submit comments about the Proposed Project. During this time, the District received 31 comment letters from agencies and members of the public. Comments received during circulation of the IS/NOP are included in Appendix C.

The following issues are likely to be of particular concern to agencies and interested members of the public during the environmental review process. While every concern applicable to the CEQA process is addressed in this DEIR, this list is not necessarily exhaustive, but rather attempts to capture those concerns that are likely to generate the greatest interest based on the input received during the scoping process.

- Development of Parking Lot F
- Traffic impacts
- Impacts to biological resources

1.9 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table 1-1, *Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation,* summarizes the conclusions of the environmental analysis contained in this DEIR. Impacts are identified as potentially significant, less than significant, or no impact, and mitigation measures are identified for all significant impacts. The level of significance after imposition of the mitigation measures is also presented.

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.1 AESTHETICS			
Impact 5.1-1: The Proposed Project would not have a substantial adverse effect on a scenic vista. [Thresholds AE-1 and AE-3]	LTS	n/a	LTS
Impact 5.1-2: The Proposed Project would not alter scenic resources within a state scenic highway. [Threshold AE-2]	NI	n/a	NI
Impact 5.1-3: The Proposed Project would not substantially degrade the existing visual character or quality of public views of the Project Site and its surroundings. [Thresholds AE-3]	LTS	n/a	LTS
Impact 5.1-4: The Proposed Project could generate additional light and glare. [Threshold AE-4]	PS	AES-1 To minimize spill lighting and glare impacts, all lighting from the Proposed Project shall be LED, have full-cutoff shielding, be aimed solely onto the campus. AES-2 Atmospheric lighting pollution shall be reduced by utilizing full cut-off shielded lighting fixtures that cut off light directed to the sky. Marquee sign lighting shall be dimmable in the evenings when not required for student/community communication. AES-3 SMMUSD shall minimize the effects of new sources of night lighting. Such measures, which may include the following and/or other measures, will be incorporated into each phase of the Proposed Project's design and operation: ▪ All exterior lighting shall be delineated as either "night-lighting" or "security lighting" and controlled by separate automatic timers. Lights delineated as security lighting shall be determined by the campus Principal, Security, and Facility Manager. ▪ All lighting delineated as "night-lighting" shall be shut off automatically at 10:00 pm on school nights. ▪ When operation of "night-lighting" is necessary after 10:00 pm, SMMUSD as operator of the Project Site shall provide notice to the community by posting such notice on the campus website and the school message board and marquee.	SU

1. Executive Summary

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures		Level of Significance After Mitigation
		▪	When school is not in session (such as summer and winter break, and weekends) "night lighting" shall not be permitted, and only required security lighting shall be illuminated.	
		AES-4	All structures shall incorporate nonreflective exterior building materials in their designs, and the use of reflective glass shall be prohibited.	
		AES-5	The pool lighting shall be designed to meet safety requirements of 30 foot candles over the pool and 20 foot candles over the deck as measured at the water level, while also minimizing light spill, glare, and skyglow to the extent feasible to ensure proper lighting levels necessary for competitive water polo play. Pool lighting shall be turned off within ½ hour of aquatic use.	
5.2 AIR QUALITY				
Impact 5.2-1: The Proposed Project would be consistent with the applicable air quality management plan. [Threshold AQ-1].	LTS	n/a		LTS
Impact 5.2-2: Construction activities associated with the Proposed Project would not generate short-term emissions in exceedance of South Coast AQMD's threshold criteria. [Threshold AQ-2]	LTS	n/a		LTS
Impact 5.2-3: Long-term operation of the Proposed Project would not generate additional vehicle trips and associated emissions in exceedance of South Coast AQMD's threshold criteria. [Threshold AQ-2]	LTS	n/a		LTS
Impact 5.2-4: The Proposed Project could expose sensitive receptors to substantial pollutant concentrations during construction. [Threshold AQ-3]	PS	AQ-1	Construction bids for Phase 1 through 4 activities at the Project Site shall specify use of off-road equipment that meets the United States Environmental Protection Agency (US EPA) Tier 4 interim emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower, unless it can be demonstrated that such equipment is not available. In the event the equipment is not available, as demonstrated by the contractor, Tier 3 equipment retrofitted with a California Air Resources Board's Level 3 Verified	LTS

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Diesel Emissions Control Strategy (VDECS) shall be used. The following shall be specified in the construction bid: ▪ Construction contractors shall use engines that meet US EPA Tier 4 Interim emission standards for equipment over 50 horsepower. ▪ Construction contractors shall maintain a list of all operating equipment in use on the Project Site in use for more than 20 hours for verification by the District. The construction equipment list shall state the makes, models, and number of construction equipment on-site. ▪ Construction contractors shall ensure that all equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations. ▪ Construction contractors shall communicate with all sub-contractors in contracts and construction documents that all non-essential idling of construction equipment is restricted to five minutes or less in compliance with CARB Rule 2449. Construction contractors shall be responsible for ensuring that this requirement is met.	
Impact 5.2-5: The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations during operation. [Threshold AQ-3]	LTS	n/a	LTS
5.3 BIOLOGICAL RESOURCES			
Impact 5.3-1: Development of the Proposed Project could impact sensitive species [Threshold BIO-1]	PS	BIO-1 **Pre-Construction Burrowing Owl Surveys**: In the year prior to initiation of Proposed Project activities in Phase 4, the Proposed Project shall conduct pre-construction burrowing owl surveys in accordance with the 2012 CDFW Burrowing Owl Consortium Survey Protocol and Mitigation Guidelines (CDFW 2012). If wintering or breeding burrowing owl are observed adjacent to the impact area, mitigation shall be conducted in accordance with the CDFW guidelines (CDFW 2012). BIO-2 **Pre-Construction Nesting Bird Surveys**: To the extent possible, vegetation removal shall be conducted during the non-breeding season (i.e., September 1 to January 31) in order to minimize direct impacts on nesting birds and raptors. If construction activities would be initiated during the breeding season for nesting birds/raptors (i.e., February 1–August 31), a pre-construction	LTS

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures		Level of Significance After Mitigation
			survey will be conducted by a qualified Biologist within three days prior to the initiation of construction (including demolition of structures). The area will be surveyed for 2 hours between dawn and 10:00 AM on five occasions with at least one week between surveys. If there is appropriate habitat for owls on site, on at least three of the surveys, surveys will also be conducted during the period immediately before nightfall. The nesting bird/raptor survey area will include a buffer of 300 feet around the work area for nesting birds and a buffer of 500 feet around the work area for nesting raptors (including burrowing owl). If the Biologist does not find any active nests in or immediately adjacent to the impact area, construction activities can proceed. If the Biologist detects an active nest within or immediately adjacent to the construction area and determines that the nest may be impacted or breeding activities substantially disrupted by increased activity around the nest, the Biologist shall determine an appropriate protective buffer around the nest depending on the sensitivity of the species and the nature of the construction activity. The protective buffer shall be between 25 to 300 feet for nesting birds; 300 to 500 feet for nesting raptors. The active nest will be protected within the designated buffer until nesting activity has ended. Any protective buffers will be mapped on construction plans and designated as "Environmentally Sensitive Areas". Construction can proceed within the protective buffer when the qualified Biologist has determined that the nest is no longer active (i.e., fledglings have left the nest or the nest has failed).	
Impact 5.3-2: Development of the Proposed Project would result in the loss of sensitive habitat types. [Threshold BIO-2]	PS	BIO-3	Vegetation Assessments: Vegetation types shall be verified prior to work activities occurring in Phases 2 and 4 if seven years have elapsed from the latest point in time the vegetation mapping described in this Biological Assessment was conducted (April 15, 2021). Vegetation types in the study area shall be assessed during a field visit and compared to the vegetation types mapped and described herein. Any changes shall be documented in a revised vegetation map and provided to the City of Malibu and the District. Special status vegetation types shall be identified, and if impacts are anticipated, the Proposed Project shall comply with Mitigation Measure, BIO-4.	LTS
		BIO-4	Special Status Vegetation Types: The loss of special status vegetation types within the impact area is considered a significant impact. These vegetation types will be restored onsite or, if appropriate, offsite at a ratio of not less than	

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		1:1, as agreed to by the City of Malibu and the District. A revegetation program shall be implemented in accordance with a City-approved landscape palette on all graded areas not utilized for improvements or structures. The revegetation program will be submitted to the City of Malibu for review and approval by a qualified biologist prior to issuance of grading permits. Restoration will consist of seeding and container planting of appropriate species. Impacts are considered less than significant after implementation of the following measures: A detailed restoration program will be developed prior to map recordation and implemented, and will contain the following items: ▪ *Responsibilities and qualifications of the personnel to implement and supervise the plan*. The responsibilities of the landowner, specialists, and maintenance personnel that will supervise and implement the plan will be specified. ▪ *Site selection*. The site(s) for mitigation will be determined in coordination with the District and the City of Malibu. The site will be located in a dedicated open space area and will be contiguous with other natural open space areas. ▪ *Site preparation and planting implementation*. The site preparation will include: 1) protection of existing native species, 2) trash and weed removal, 3) native species salvage and reuse (i.e., duff), 4) soil treatments (i.e., imprinting, decompacting), 5) erosion control measures (i.e., rice or willow wattles), and 6) native seed mix application. ▪ *Schedule.* Establishment of restoration/revegetation sites will be conducted between October 1 and January 30. Seeding and planting of container plants will take place immediately after preparation of the restoration sites. ▪ *Maintenance plan/guidelines*. The maintenance plan will include: 1) weed control, 2) herbivory control, 3) trash removal, 4) irrigation system maintenance, 5) maintenance training, and 6) replacement planting. ▪ *Monitoring Plan*. The monitoring plan will include: 1) qualitative monitoring (i.e., photographs and general observations), 2) quantitative monitoring (i.e., randomly placed transects), 3) performance criteria as approved by the City, 4) monthly reports for the first year and bimonthly reports thereafter, and 5) annual reports which will be submitted to the City for	

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		three to five years. The monitoring will be conducted for three to five years, depending upon the performance of the mitigation site. ▪ *Long-term preservation.* Long-term preservation of the site will be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development. ▪ *Performance standards will be identified and will apply for the revegetation of special status vegetation types.* Revegetation will be considered successful at three years if the percent cover and species diversity of the restored and/or created habitat areas are similar to percent cover and species diversity of adjacent existing habitats, as determined by quantitative testing of existing, restored, and created habitat areas. In addition, earth-moving equipment will avoid maneuvering in areas outside the identified limits of grading in order to avoid disturbing open space areas that will remain undeveloped. Prior to grading, the construction boundary limits will be marked by the construction supervisor and the Project biologist. These limits will be identified on the grading plan. The District will submit a letter to the City of Malibu verifying that construction limits have been flagged in the field. No earth-moving equipment will be allowed outside of the construction boundary.	
Impact 5.3-3: The Proposed Project would impact approximately 0.033 acres of USACE Jurisdiction, 0.033 of RWQCB Jurisdiction, and 0.033 of CDFW Jurisdiction waters [Threshold B-3]		BIO-5 USACE and CDFW Jurisdiction Areas: Upon completion of construction activities, impacts to approximately 0.033-acre of non-wetland USACE and CDFW jurisdictional waters will be mitigated within the Proposed Project boundaries through the creation of 0.033-acre of non-wetland jurisdictional waters. Acquisition of a § 404 "dredge and fill" permit from the USACE (possibly through the use of Nationwide Permit No. 39), a § 1602 "streambed alteration" agreement from the CDFW, and a § 401 water quality certification or waiver will be obtained from the Regional Water Quality Control Board. Prior to the final submittal of an application for an USACE permit, a RWQCB Water Quality Certification, and or CDFW streambed alteration agreement, the District will develop a mitigation plan for the USACE, RWQCB, CDFW, and City of Malibu. The objective of the mitigation is to ensure no net loss of habitat values as a result of the Proposed Project. The detailed restoration program shall contain the following items: ▪ *Responsibilities and qualifications of the personnel to implement and supervise the plan*. The responsibilities of the landowner, specialists and	

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		maintenance personnel that would supervise and implement the plan will be specified. ▪ *Site selection*. The site(s) for the mitigation will be determined in coordination with the Project Applicant and resource agencies. The site will be located in a dedicated open space area and will be contiguous with other natural open space. ▪ *Site preparation and planting implementation.* The site preparation will include: 1) protection of existing native species, 2) trash and weed removal, 3) native species salvage and reuse (i.e., duff), 4) soil treatments (i.e., imprinting, decompacting), 5) temporary irrigation installation, 6) erosion control measures (i.e., rice or willow wattles), 7) native seed mix application, and 8) native container species. ▪ *Schedule. A* schedule will be developed which includes planting to occur in late fall and early winter, between October 1 and January 30. ▪ *Maintenance plan/guidelines*. The maintenance plan will include: 1) weed control, 2) herbivory control, 3) trash removal, 4) irrigation system maintenance, 5) maintenance training, and 6) replacement planting. ▪ *Monitoring Plan.* The monitoring plan will include: 1) qualitative monitoring (i.e., photographs and general observations), 2) quantitative monitoring (i.e., randomly placed transects), 3) performance criteria as approved by the resource agencies, 4) monthly reports for the first year and bimonthly reports thereafter, and 5) annual reports which will be submitted to the resource agencies for three to five years. The site will be monitored and maintained for five years to ensure successful establishment of riparian habitat within the restored and created areas; however, if there is successful coverage prior to five years, the District may request from USACE and CDFW to be released from monitoring requirements. ▪ *Long-Term Preservation.* Long-term preservation of the site will be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development. ▪ Performance standards will be identified and will apply for the restoration of riparian habitat. Revegetation will be considered successful at three years if the percent cover and species diversity of the restored and/or created habitat areas are similar to percent cover and species diversity of	

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		adjacent existing habitats, as determined by quantitative testing of existing and restored and/or created habitat areas.	
Impact 5.3-4: The Proposed Project would not affect wildlife movement. [Threshold B-4]	LTS	n/a	LTS
Impact 5.3-5: The Proposed Project would require compliance with the local tree ordinance [Thresholds B-5 and B-6]	PS	BIO-6 Adherence to City of Malibu Tree Protection Ordinance: Prior to initiation of Proposed Project activities in each Phase of the Proposed Project, the tree survey map created for the Proposed Project (Appendix C) shall be consulted and if impacts to any protected trees are anticipated, the Proposed Project shall comply with mitigation included in the Malibu Local Coastal Program Native Tree Protection Ordinance.	LTS
5.4 CULTURAL RESOURCES			
Impact 5.4-1: There are no historical resources in the Project Site; development pursuant to the Proposed Project would not result in an impact on identified historic resources. [Threshold C-1]	LTS	n/a	LTS
Impact 5.4-2: Development of the Proposed Project could result in an impact on archaeological resources. [Threshold C-2]	PS	CUL-1 Prior to issuance of any permits allowing ground-disturbing activities for the Proposed Project (for each individual phase of the Project), the District shall ensure that an archaeologist who meets the Secretary of the Interior's standards for professional archaeology and a Qualified Paleontologist (or someone cross-trained in both areas) has been retained for the Proposed Project and will be on-call during all grading and other significant ground-disturbing activities. The Qualified Archaeologist and Paleontologist shall ensure that the following measures are followed for the Project: ▪ Prior to any ground disturbance, the Qualified Archaeologist/Paleontologist, or their designee, shall provide worker environmental awareness protection training to construction personnel regarding regulatory requirements for the protection of cultural (prehistoric and historic) and paleontological resources. As part of this training, construction personnel shall be briefed on proper procedures to follow should unanticipated cultural or paleontological resources be made during construction. ▪ In the event that unanticipated cultural or fossil-bearing material is encountered during any phase of Project construction, all construction work	LTS

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		within 100 feet of the find shall cease and the Qualified Archaeologist/Paleontologist shall assess the find for importance. Construction activities may continue in other areas. If the discovery is determined to not be important by the Qualified Archaeologist/Paleontologist, work will be permitted to continue in the area. o If a find is determined to be important by the Qualified Archaeologist/Paleontologist, he or she shall immediately notify the District. The District shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the California Register of Historical Resources (CRHR). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: (1) is not eligible for the CRHR; or (2) that the treatment measures have been completed to their satisfaction. o If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Los Angeles County Medical Examiner-Coroner (as per § 7050.5 of the California Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code (PRC), and AB 2641 will be implemented. If the Medical Examiner-Coroner determines the remains are Native American and not the result of a crime scene, the Medical Examiner-Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either	

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.	
5.5 ENERGY			
Impact 5.5-1: The Proposed Project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation. [Threshold E-1]	LTS	n/a	LTS
Impact 5.5-2: The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. [Threshold E-2]	NI	n/a	NI
5.6 GEOLOGY AND SOILS			
Impact 5.6-1: Future development in the Project Site, pursuant to the Proposed Project would not expose increased numbers of persons and structures to strong ground shaking from active faults in the region. [Threshold G-1ii]	LTS	n/a	LTS
Impact 5.6-2: Future development in the Project Site would not result in substantial soil erosion or the loss of topsoil. [Threshold G-2]	LTS	n/a	LTS
Impact 5.6-3: Future development in the Project Site could subject persons or structures to hazards arising from off-site landslide, lateral	PS	GEO-1 Design recommendations listed in the Geotechnical Report prepared for the Proposed Project shall be followed. These include, but are not limited to,	LTS

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
spreading, subsidence, collapsible soils, or expansive soils. [Thresholds G-1iv, G-3, and G-4]		seismic design parameters, foundation design, retaining wall, grading, trenching, etc. Details of these recommendations are included in Appendix G.	
Impact 5.6-4: Soil conditions at the Project Site could adequately support proposed septic tanks. [Threshold G-5]	LTS	n/a	LTS
Impact 5.6-5: Build out of the Proposed Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature [Threshold G-6]	PS	CUL-1 Prior to issuance of any permits allowing ground-disturbing activities for the Proposed Project (for each individual phase of the Project), the District shall ensure that an archaeologist who meets the Secretary of the Interior's standards for professional archaeology and a Qualified Paleontologist (or someone cross-trained in both areas) has been retained for the Proposed Project and will be on-call during all grading and other significant ground-disturbing activities. The Qualified Archaeologist and Paleontologist shall ensure that the following measures are followed for the Project: ▪ Prior to any ground disturbance, the Qualified Archaeologist/Paleontologist, or their designee, shall provide worker environmental awareness protection training to construction personnel regarding regulatory requirements for the protection of cultural (prehistoric and historic) and paleontological resources. As part of this training, construction personnel shall be briefed on proper procedures to follow should unanticipated cultural or paleontological resources be made during construction. ▪ In the event that unanticipated cultural or fossil-bearing material is encountered during any phase of Project construction, all construction work within 100 feet of the find shall cease and the Qualified Archaeologist/Paleontologist shall assess the find for importance. Construction activities may continue in other areas. If the discovery is determined to not be important by the Qualified Archaeologist/Paleontologist, work will be permitted to continue in the area. o If a find is determined to be important by the Qualified Archaeologist/Paleontologist, he or she shall immediately notify the District. The District shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the California Register of Historical Resources (CRHR). Work may not resume within the no-work	LTS

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		radius until the lead agencies, through consultation as appropriate, determine that the site either: (1) is not eligible for the CRHR; or (2) that the treatment measures have been completed to their satisfaction. o If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Los Angeles County Medical Examiner-Coroner (as per § 7050.5 of the California Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code (PRC), and AB 2641 will be implemented. If the Medical Examiner-Coroner determines the remains are Native American and not the result of a crime scene, the Medical Examiner-Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.	

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.7 GREENHOUSE GAS EMISSIONS			
Impact 5.7-1: Implementation of the Proposed Project would not generate a net increase in GHG emissions, either directly or indirectly, that would have a significant impact on the environment. [Threshold GHG-1]	LTS	n/a	LTS
Impact 5.7-2: Implementation of the Proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. [Threshold GHG-2]	LTS	n/a	LTS
5.8 HAZARDS AND HAZARDOUS MATERIALS			
Impact 5.8-1: The Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. [Threshold H-1]	LTS	n/a	LTS
Impact 5.8-2: The Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. [Threshold H-2]	LTS	n/a	LTS

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.8-3: The Proposed Project would not be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code section 65962.5 and, as a result, would create a significant hazard to the public or the environment. [Threshold H-4]	LTS	n/a	LTS
Impact 5.8-4: Project development would not affect the implementation of an emergency responder or evacuation plan. [Threshold H-6]	LTS	n/a	LTS
Impact 5.8-5: The Proposed Project Site would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. [Threshold H-7]	LTS	n/a	LTS
5.9 HYDROLOGY AND WATER QUALITY			
Impact 5.9-1: The Proposed Project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. [Threshold HYD-1]	LTS	n/a	LTS
Impact 5.9-2: The Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Proposed Project may impede sustainable groundwater management of the basin. [Threshold HYD-2]	LTS	n/a	LTS
Impact 5.9-3: The Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner that would result in a substantial erosion or siltation on- or off-site. [Threshold HYD-3(i)]	LTS	n/a	LTS

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.9-4: The Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner that would substantially increase the rate or amount of surface runoff which would result in flooding on- or off-site. [Threshold HYD-3(ii)]	LTS	n/a	LTS
Impact 5.9-5: The Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. [Threshold HYD-3(iii)]	LTS	n/a	LTS
Impact 5.9-6: The Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner that would impede or redirect flood flows. [Threshold HYD-3(iv)]	LTS	n/a	LTS
Impact 5.9-7: The Proposed Project would not risk release of pollutants due to Project inundation due to flooding, tsunami, or seiche. [Threshold HYD-4]	NI	n/a	NI
5.10 LAND USE AND PLANNING			
Impact 5.10-1: Project implementation would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect. [Threshold LU-2]	LTS	n/a	LTS
5.11 NOISE			
Impact 5.11-1: Construction-related activities would result in temporary noise increases in	PS	N-1 Construction contractors shall implement the following measures for construction activities conducted at the Project Site during each phase of	SU

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
the vicinity of the Proposed Project in excess of established standards. [Threshold N-1]		construction. Construction plans submitted to the District shall identify these measures on demolition, grading, and construction plans. The District shall verify that grading, demolition, and/or construction plans submitted include these notations prior to demolition, grading, and/or building construction. ▪ During the active construction period, equipment and trucks used for Project construction shall utilize the best available noise control techniques (e.g., improved mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds) wherever feasible. ▪ Impact tools (e.g., jack hammers and hoe rams) shall be hydraulic- or electric-powered wherever feasible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools. ▪ Stationary equipment such as generators and air compressors shall be located as far as feasible from noise-sensitive uses. ▪ The District's construction contractors and subcontractors shall be required through contract specifications to locate construction staging areas, construction worker parking, and material stockpiling as far away from vibration- and noise-sensitive sites as possible. Additionally, these activities shall be located away from occupied buildings on campus, occupied residential dwellings adjacent to the campus, and other sensitive receptors, where feasible. ▪ Prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours as well as the contact information of the District's and contractor's representatives who are authorized to respond in the event of a noise or vibration complaint. If the contractor's authorized representative receives a complaint, they shall investigate, take appropriate corrective action, and report the action to the District. ▪ Signs shall be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All equipment shall be turned off if not in use for more than 5 minutes. ▪ During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall be	

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures		Level of Significance After Mitigation
			responsible for adjusting alarms based on the background noise level, or to utilize human spotters when feasible and in compliance with all safety requirements and laws. ▪ Notification shall be mailed to owners and occupants of all developed land uses immediately bordering or directly across the street from the Proposed Project site providing a schedule for major construction activities that will occur through the duration of the construction period. When construction activity would occur within 100 feet of nearby receptor property lines, contractors shall erect temporary noise barriers where feasible. The temporary noise barrier shall have a minimum height of 12 feet and be free of gaps and holes. The barrier can be (a) a ¾-inch-thick plywood wall OR (b) a hanging acoustical blanket/curtain with a surface density or at least 1.5 pounds per square foot. ▪ Prior to construction, the contractor shall submit a list of equipment and activities required during construction to the District in order to ensure proper planning of the most intense construction activities during time periods that would least impact the campus operation. When construction activity would occur within 150 feet of active classrooms, contractors shall ensure that interior classroom noise levels do not exceed 50 dBA Leq. Feasible methods to achieve this include those listed above, scheduling work during less sensitive time periods when the classroom is not in use and classroom use rescheduling to move active classes away from high noise construction activities, as necessary. Construction activities taking place within 50 feet of occupied classrooms would be prohibited during preparation and testing for National Standardized testing days of students at MMHS.	
Impact 5.11-2: Project implementation would not result in permanent operation-related noise that would exceed established standards. [Threshold N-1]	PS	N-2	The proposed bus barn shall be an enclosed structure constructed of wood, masonry, concrete, or other similar solid material (e.g., not corrugated metal). The structure will have no gaps and minimal window area. All bus testing shall be conducted inside the enclosed bus barn.	LTS

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.11-3: The Proposed Project would not generate excessive groundborne vibration or groundborne noise levels. [Threshold N-2]	LTS	n/a	LTS
5.12 PUBLIC SERVICES			
Impact 5.12-1: The Proposed Project would not affect response times or other performance objectives that would result in the need for new or physically altered fire protection facilities, the construction of which would cause significant environmental impacts. [Threshold PS-1(i)]	LTS	n/a	LTS
Impact 5.12-2: The Proposed Project would not affect response times or other performance objectives that result in the need for new or physically altered police protection facilities, the construction of which would cause significant environmental impacts. [Threshold PS-1(ii)]	LTS	n/a	LTS
5.13 RECREATION			
Impact 5.13-1: Project implementation would not result in environmental impacts to provide new and/or expanded recreational facilities. [Threshold R 2]	NI	n/a	NI
5.14 TRANSPORTATION			
Impact 5.14-1: The Proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. [Threshold T-1]	LTS	n/a	LTS
Impact 5.14-2: The Proposed Project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). [Threshold T-2]	LTS	n/a	LTS

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Impact 5.14-3: Project circulation improvements have been designed to adequately address potentially hazardous conditions (sharp curves, etc.), and potential conflicting uses. [Threshold T-3]	PS	T-1 During each phase of construction activity, SMMUSD shall work with the City of Malibu Public Works Department to develop and implement a Construction Traffic Mitigation Plan that is specific to the needs of each phase and shall include the following: ▪ Haul trucks and vendor truck traffic ingress and egress to/from the construction area shall not occur 30 minutes prior to, or after student arrival and dismissal times8:30Monday – Friday 13.p.m. Monday – Thursday and 12 p.m. to 1:30 p.m. on Friday. ▪ The plan shall eliminate curbside parking on the south side of Morning View Drive south of the construction staging area to provide adequate turn radius and site distance to access for trucks entering and leaving work sites. This would apply to construction Phases 1, 2 and 3 only, which would have access via the segment of Morning View Drive adjacent to the school frontage. ▪ The plan shall include a Traffic Education Program to assist in educating parents, students, and staff on drop-off/pick-up procedures specific to each phase of construction. Informational materials shall be disseminated regarding student drop-off and pick-up procedures via regular parent/school communication methods and shall be posted on the school website. ▪ The use of portable message signs and information signs at construction sites shall be employed as needed. ▪ Construction activities for each phase shall be coordinated with the responsible agency departments, including the City of Malibu Public Works and Planning Departments, and the Los Angeles County Sheriff and Fire Departments no less than 10 days prior to the start of the work for each phase. Notification shall specify whether any temporary vehicle, pedestrian, or bicycle construction detours are needed, if construction work would encroach into the public right-of-way, or if temporary use of public streets surrounding the Project Site is needed. T-2 To facilitate safe and efficient vehicular and pedestrian circulation during student drop-off and pickup, times during Phase 1, prior to initiation of construction activities, SMMUSD shall work with the City of Malibu Public Works Department to develop and implement a Traffic and Parking C Plan to include the following:	LTS

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		▪ Designation of vehicular drop-off and pick-up areas outside Morning View Drive at off-street Parking Lots A, D, and E. Vehicular access to these lots shall allow vehicles to enter and return from the area from the intersection of Morning View Drive at PCH. ▪ Student drop-off and pick-up shall be implemented in a counterclockwise circulation pattern. Figure 5.14-2 depicts vehicular circulation patterns that shall be used in Parking Lots A, D, and E during Phase 1 construction. ▪ The school shall educate students and parents on drop-off and pick-up routes and procedures. This may be achieved with a combination of information bulletins shared with students and parents. T-3 Construction scheduling during Phases 2 to 4 shall be scheduled such that any activities that would result in potential lane closures along Morning View Drive, including, but not limited to, reconstruction of the student drop-off/pick-up area and sidewalks along Morning View Drive, shall be limited to summer months when school is not in session in order to eliminate conflicts with local traffic and pedestrian activities. T-4 The SMMUSD shall coordinate with the City of Malibu Public Works Department to relocate crosswalks and school- area signage in relation to the proposed access driveways according to City of Malibu and applicable state criteria. Crossing guards shall be relocated as necessary, based on the ultimate location of crosswalks.	
5.15 UTILITIES AND SERVICE SYSTEMS			
Impact 5.15-1: Existing and/or proposed water, wastewater, stormwater, electric, natural gas, and telecommunication facilities would be able to accommodate Project-generated utility demands. [Threshold U-1]	LTS	n/a	LTS
Impact 5.15-2: Available water supplies are sufficient to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years. [Threshold U-2]	LTS	n/a	LTS

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Impact 5.15-3: Project-generated wastewater could be adequately treated by the wastewater service provider for the Proposed Project. [Threshold U-3]	LTS	n/a	LTS
5.16 WILDFIRE			
Impact 5.16-1: Future development on the Project Site pursuant to the Proposed Project could exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors. [Threshold W-2]	PS	W-1 The District and its general contractor will prepare a Construction Fire Protection Plan (CFPP) that shall be implemented during all phases of construction activity. The CFPP will be approved by the County of Los Angeles Fire Department (LACoFD) prior to building construction and may also be reviewed and approved in phases based on the phased development of the Proposed Project. The CFPP shall include, but not be limited to, guidance for: ▪ Prevention, control, and extinguishment of fires during construction activities. ▪ Smoking- and fire-related rules, storage, and parking area. ▪ Delineating work areas from natural/open space areas and establishing sufficient setbacks. ▪ Vegetation management prior to and during construction activity, consistent with LACoFD protocols. ▪ Requirement to use spark arrestors on construction equipment. ▪ Limiting the type and duration of construction activities during red flag warning events issued by the National Weather Service covering the Project area.	LTS
Impact 5.16-2: Future development on the Project Site pursuant to the Proposed Project could 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 result in temporary or ongoing impacts to the environment. [Threshold W-3]	LTS	n/a	LTS
Impact 5.16-3: Future development on the Project Site pursuant to the Proposed Project	PS	GEO-1 Design recommendations listed in the Geotechnical Report prepared for the Proposed Project shall be followed. These include, but are not limited to,	LTS

1. Executive Summary

Table 1-1 Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, postfire slope instability, or drainage changes. [Threshold W-4]		seismic design parameters, foundation design, retaining wall, grading, trenching, etc. Details of these recommendations are included in Appendix G.	

Notes:
n/a = not applicable
LTS = less than significant
NI = no impact
PS = potentially significant
SU = significant and unavoidable

2. Introduction

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. This Draft Environmental Impact Report (DEIR) has been prepared to satisfy the requirements set forth in CEQA and the CEQA Guidelines. An Environmental Impact Report (EIR) is a public informational document that provides decision makers and the public with an analysis of the environmental effects of the Proposed Project, and indicates possible ways to reduce or avoid environmental damage through the identification of mitigation measures and/or alternatives to the Proposed Project. The EIR must also disclose significant environmental impacts that cannot be avoided; growth inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present, and reasonably foreseeable future projects.

The lead agency means "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment" (Public Resources Code [PRC] § 21067). The Santa Monica–Malibu Unified School District (SMMUSD or District) will be carrying out the Malibu Middle and High School (MMHS) Campus Specific Plan Project (Proposed Project). For this reason, SMMUSD is the CEQA lead agency for this Proposed Project. The intent of this DEIR is to provide sufficient information on the potential environmental impacts of the Proposed Project (see Appendix A) to allow SMMUSD to make an informed decision on whether to carry out the Proposed Project. Specific discretionary actions to be considered by the SMMUSD and other responsible agencies are described in Section 3.5, *Intended Uses of This EIR*.

This DEIR has been prepared in accordance with requirements of the:

- California Environmental Quality Act (CEQA) of 1970, as amended (PRC, §§ 21000 et seq.)
- State Guidelines for the Implementation of the CEQA of 1970 (CEQA Guidelines), as amended (California Code of Regulations, §§ 15000 et seq.)

This DEIR contains both a project level and a programmatic level of review. Phase 1 of the Proposed Project is analyzed at a project-level of detail consistent with CEQA Guidelines § 15161 and considers the changes in the environment that would result during construction and operation of the Proposed Project. Phases 2 through 4, which are considered a series of actions that can be characterized as one project, are analyzed at a programmatic level, consistent with CEQA Guidelines § 15168. As defined in CEQA Guidelines § 15168(b), the use of a program EIR can provide for a more exhaustive consideration of effects and alternatives than would be practical for an individual action; ensure consideration of cumulative impacts;

avoid duplicative reconsideration of basic policy considerations; allow the lead agency to consider broad policy alternatives and programwide mitigation measures at an early time; and reduce paperwork.

Consistent with the requirements in CEQA Guidelines § 15168(c), later activities (i.e., Phases 2 through 4) would be examined in light of the information in this DEIR to determine whether an additional environmental document must be prepared. It is the intent of the District to use this DEIR for later phases to determine whether additional tiered analysis is necessary as provided by § 15152 of the CEQA Guidelines. Factors to be used in determining whether subsequent environmental review is required include but are not limited to consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed, and covered infrastructure described in this DEIR.

2.2 NOTICE OF PREPARATION AND INITIAL STUDY

SMMUSD determined that an EIR would be required for this Proposed Project and issued an Initial Study/ Notice of Preparation (IS/NOP) on August 20, 2020 (see Appendix B). Comments received during the IS/NOP's public review period, from August 20, 2020, to September 21, 2020, are in Appendix C. A scoping meeting was held on September 9, 2020, where an overview of the Proposed Project and CEQA process were presented. The comments received during the public review period, as well as a summary of the comments presented at the scoping meeting, are provided in Appendix C of this DEIR.

The NOP process helps determine the scope of the environmental issues to be addressed in the DEIR. Based on this process and the Initial Study for the Proposed Project, certain environmental categories were identified as having the potential to result in significant impacts. Environmental issues that were considered to have Potentially Significant Impacts are addressed in this DEIR, while those issues identified to result in Less Than Significant Impact or No Impact are addressed in the IS/NOP. Refer to the IS/NOP in Appendix B for discussion of how these initial determinations were made.

2.3 SCOPE OF THIS DEIR

The scope of the DEIR was determined based on the IS/NOP, comments received in response to the NOP, and comments received at the scoping meeting conducted by the SMMUSD. Pursuant to §§ 15126.2 and 15126.4 of the CEQA Guidelines, the DEIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce or eliminate these impacts to levels of insignificance.

2.3.1 Impacts Considered Less Than Significant

During preparation of the IS/NOP, SMMUSD determined that four environmental impact categories were not significantly affected by the Proposed Project. These categories are addressed in detail in Appendix B of this DEIR.

- Agriculture and Forestry Resources
- Population and Housing
- Mineral Resources
- Tribal Cultural Resources

2.3.2 Potentially Significant Adverse Impacts

Through the IS/NOP process, SMMUSD determined that further analysis was needed of 16 environmental factors to determine whether the Proposed Project would result in potentially significant impacts. These topics are evaluated in detail in Chapter 5, *Environmental Analysis*, of this DEIR.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology And Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

2.3.3 Unavoidable Significant Adverse Impacts

This DEIR identifies one potentially significant and unavoidable adverse impact, as defined by CEQA, that may result from implementation of the Proposed Project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. The SMMUSD must prepare a "statement of overriding considerations" before it can approve the Proposed Project, attesting that the decision-making body has balanced the benefits of the Proposed Project against its unavoidable significant environmental effects and has determined that the benefits outweigh the adverse effects, and therefore the adverse effects are considered acceptable. The impacts that were found in the DEIR to be significant and unavoidable are:

- **Impact 5.1-4:** In order to meet safety requirements, new pool lighting would create a new source of substantial light and glare, conflicting with the City of Malibu Dark Sky Ordinance. [Threshold A-4]

- **Impact 5.11-1** Construction-related activities would result in temporary noise increases in the vicinity of the Proposed Project in excess of established standards. [Threshold N-1]

2.4 INCORPORATION BY REFERENCE

The following documents are incorporated herewith by reference into this DEIR, consistent with § 15150 of the CEQA Guidelines, and they are available for review at SMMUSD's Office.

- City of Malibu Local Coastal Program Land Use Plan, December 2015
- City of Malibu Local Coastal Program Local Implementation Plan, March 2016
- City of Malibu Municipal Code, June 2021
- City of Malibu General Plan, November 1995
- Malibu Middle and High School Specific Plan, August 2021

2.5 FINAL EIR CERTIFICATION

This DEIR is being circulated for a 45 day-review period, from October 15, 2021, to November 29, 2021. Interested agencies and members of the public are invited to provide written comments on the DEIR. In compliance with §§ 15085(a) and 15087(a)(1) of the CEQA Guidelines, the SMMUSD, serving as the Lead Agency, has published a Notice of Completion (NOC) and Notice of Availability (NOA) of the DEIR, which indicates that the DEIR and all associated technical appendices can be viewed at the following locations:

- Santa Monica–Malibu Unified School District, 1651 16th Street, Santa Monica, CA 90404
- Malibu Middle and High School Administrative Offices "Lobby", 30215 Morning View Drive, Malibu, CA 90265
- City of Malibu Planning Counter, 23825 Stuart Ranch Road, Malibu, CA 90265
- City of Malibu Public Library, 23555 West Civic Center Way, Malibu, CA 90265

In addition, the DEIR is available on line at the SMMUSD website https://www.smmusd.org/cms/lib/CA50000164/Centricity/Domain/4188/Malibu-HS/DEIR0921.pdf and the City of Malibu website (www.malibucity.org).

The NOC/NOA have been transmitted to the State Clearing House and County Clerk and were distributed to all property owners within 500 feet of the Project Site and/or those who have previously requested such notice. Any public agency or members of the public wishing to comment on the DEIR must submit their comments in writing or send them via email with the subject heading "Malibu Middle and High School Project Specific Plan Project" to the following addresses prior to the end of the public review period:

- **Mail:** Carey Upton
  Santa Monica-Malibu Unified School District
  1651 16th Street
  Santa Monica, California 90404

- **Email:** Cupton@smmusd.org

Upon completion of the 45-day review period, SMMUSD will review all written comments received and prepare written responses for each. The Final EIR (FEIR) will include all received comments, SMMUSD's responses to those comments, and any changes to the DEIR that result from comments. The FEIR will be presented to the SMMUSD's Board of Education for potential certification as the environmental document for the Proposed Project. All persons who comment on the DEIR will be notified of the availability of the FEIR and the date of the public hearing.

2.6 MITIGATION MONITORING

PRC § 21081.6 requires that agencies adopt a Mitigation Monitoring And Reporting Program (MMRP) for any project for which it has made findings pursuant to PRC § 21081. Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of the EIR.

The MMRP for the Proposed Project will be completed as part of the FEIR, prior to consideration of the project by the District's Board of Education.

2. Introduction

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3. Project Description

3.1 PROJECT LOCATION

The Santa Monica–Malibu Unified School District (SMMUSD or District) property is located at 30215 Morning View Drive (Assessor's Parcel Map Numbers (APN) 4469-017-900, 4469-018-900, 4469-018-901, 4469-018-902, 4469-018-903, 4469-018-904, 4469-019-900, 4469-019-901, 4469-019-902) in the city of Malibu, Los Angeles County, California (see Figure 3-1, *Regional Location*). The SMMUSD property consists of approximately 87 acres over nine parcels that includes the existing Malibu Equestrian Park in the eastern part of the property, the existing Malibu Middle and High School (MMHS) campus in the center, and the former Juan Cabrillo Elementary School (JCES) campus in the west (Project Site). The Project Site is situated on three of nine parcels: APN 4469-017-900 (40.06 acres), 4469-018-900 (9.4 acres), and 4459-018-904 (2.57 acres). The total acreage of the Project Site is 52.03 acres. The majority of the Malibu Middle and High School Campus Specific Plan Project (Proposed Project) would be developed within the existing MMHS campus and the former JCES campus, with one component of the Proposed Project in the Malibu Equestrian Park. The Project Site is set amid rolling hills, and its buildings and athletic fields are terraced into the hillside setting. The Project Site is in the City of Malibu Institutional (I) Zoning District that authorizes public educational institutions with a conditional use permit.

The Project Site is approximately 0.25-mile northeast of the Pacific Coast Highway (PCH) and Zuma Beach, and is bounded by Merritt Drive to the east, Via Cabrillo Street to the west, and Morning View Drive to the south (Figure 3-2, *Local Vicinity)*. Single-family homes border the Project Site to the north (Figure 3-3, *Aerial Photograph*).

3.2 STATEMENT OF OBJECTIVES

Section 15124(b) of CEQA Guidelines requires a project description to include a statement of the objectives of a project that address the underlying purpose. The following specific objectives have been identified for the Proposed Project:

1. Create unique and separate identities for the Malibu Middle School and Malibu High School campuses.
2. Advance educational facilities to support 21st century learning and properly support the projected enrollment.
3. Improve learning by replacing undersized and inflexible facilities with larger, functional flexible spaces that accommodate modern, diverse learning styles and allow for variable uses.
4. Provide enhanced, modern, and functional support spaces, such as libraries, cafeteria, labs, maker spaces, and other student services, that promote whole child development.

5. Improve the arts and athletic facilities in support of both the school and the community's educational, cultural, and recreational enhancement.
6. Reorganize open space and foster intercampus circulation.
7. Improve access, circulation, and drop-off and pick-up, and increase on-campus parking in a manner that improves pedestrian and vehicle safety.
8. Respect the natural environment by developing a campus that is of high design, and complementary to the natural landscape and that contributes to the high scenic quality of the area.
9. Adopt development standards for the MMHS allowing for the educational design requirements of many of the buildings.
10. Increase District resiliency, protect and maximize the learning environment, and maximize energy and operational savings through a photovoltaic solar array and battery backup system.
11. Remove hazardous buildings and structures.

Figure 3-1 Regional Location

Note: Unincorporated county areas are shown in white.
Source: ESRI, 2020

0 3
Scale (Miles)

3. Project Description

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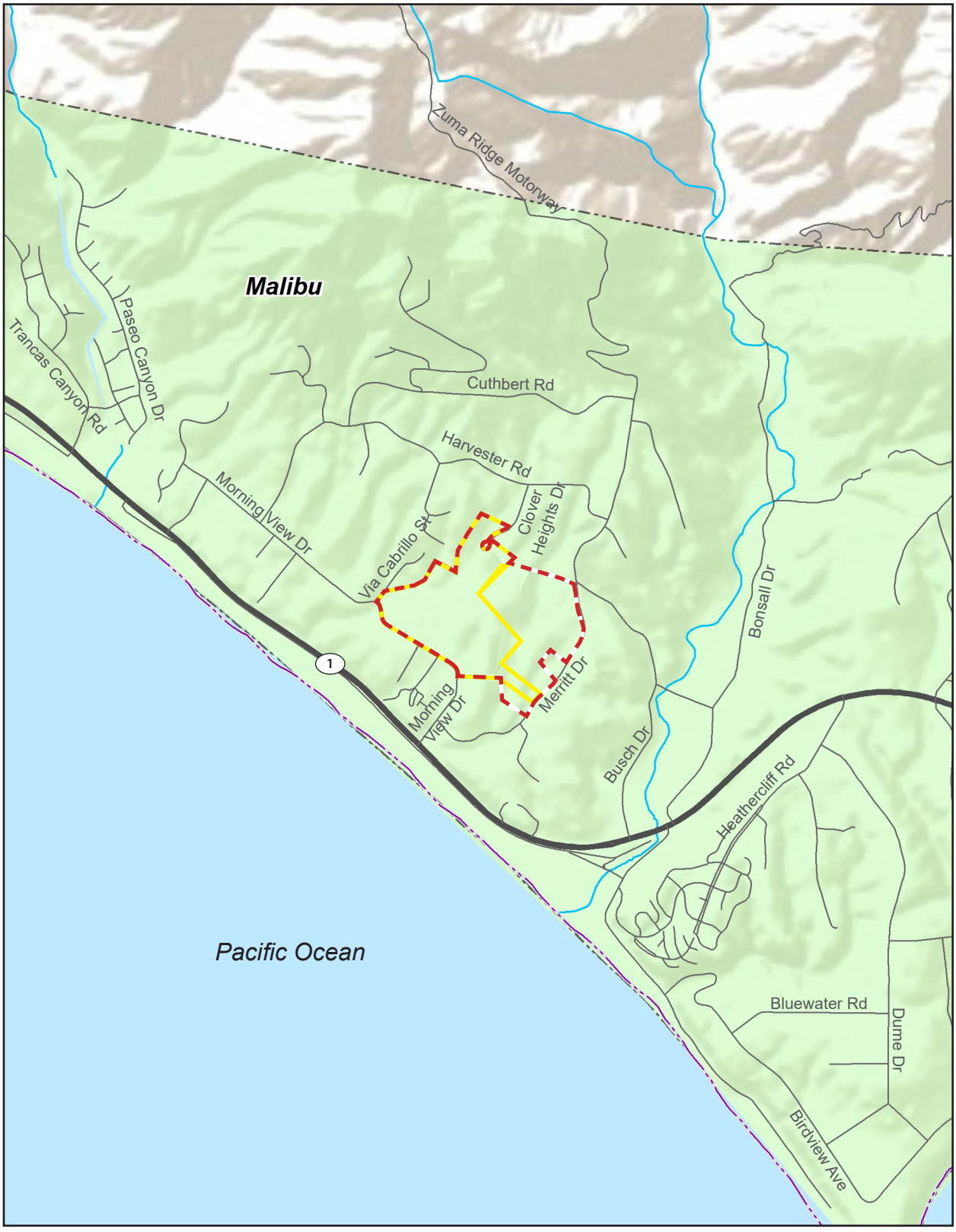
Figure 3-2 Local Vicinity



Source: ESRI, 2020 Note: Unincorporated county areas are shown in white.

3. Project Description

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Figure 3-3 Aerial Photograph

District Owned Property

Project Boundary

Parcel Lines
(Note: Some parcel lines are hidden underneath District Owned Property and Project Boundary lines)

0 800
Scale (Feet)

Source: Nearmap, 2020

3. Project Description

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3.3 PROJECT CHARACTERISTICS

"Project," as defined by the CEQA Guidelines, means:

> ... the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code §§ 65100–65700. (14 Cal. Code of Reg. § 15378[a])

This Draft Environmental Impact Report (DEIR) contains both a project level and a programmatic level of review of the entire project. Phase 1 of the Proposed Project is analyzed at a project level of detail consistent with CEQA Guidelines § 15161 and considers the changes in the environment that would result during construction and operation of Phase 1. Phases 2 through 4, which are considered a series of actions that can be characterized as one project, are analyzed at a programmatic level, consistent with CEQA Guidelines § 15168. As defined in CEQA Guidelines § 15168(b), the use of a program EIR can provide for a more exhaustive consideration of effects and alternatives that would be practical for an individual action; ensure consideration of cumulative impacts, avoid duplicative reconsideration of basic policy considerations; allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time; and reduce paperwork.

Consistent with the requirements set forth in CEQA Guidelines § 15168(c), later activities (i.e., Phases 2 through 4) would be examined in light of the information contained in this DEIR to determine whether an additional environmental document must be prepared. It is the intent of the District to use this DEIR for later phases to determine whether additional tiered analysis is necessary provided by § 15152 of the CEQA Guidelines. Factors to be used in determining whether subsequent environmental review is required include but are not limited to consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed, and covered infrastructure described in this DEIR.

3.3.1 Proposed Project Development

The Proposed Project would generally organize the Project Site land uses in three defined areas: Middle School core, High School core, and shared amenities. This consolidation of uses would result in a more efficient use of available land while enhancing independent identities for each area and improving wayfinding. The pronounced topography found on the Project Site would also be utilized to emphasize this concept by creating "terraces" for each defined area.

At the center of the campus, the Proposed Project would include the Performing Art Center along with an arrival plaza to serve as a welcoming entry and as a bridge connecting both schools. A leveled academic quad is proposed for each campus and would become the main organizing element for the academic cores. This important space would become the "heart" of each school and hub of educational and social activities while providing access to surrounding buildings. In addition, the Proposed Project would remove the existing bus

barn from its current location on campus to a District-owned location within the boundaries of the Malibu Equestrian Center. Operational characteristics of the new bus barn would be the same as the existing bus barn.

The following section provides a description of all elements of the Proposed Project. The information in this project description is based on the Malibu Middle and High School Campus Specific Plan (Specific Plan), which is included as Appendix A to this DEIR, and Phase 1 design. The Proposed Project would be developed in four phases over approximately 10 years, with each phase being dependent on funding availability and passage of new bond measures. Phase 1 is funded, and design is complete. As shown in Table 3-1, *Summary of Building Demolition*, implementation of the Proposed Project would result in demolition of 7 buildings and 9 portables on the former JCES campus and 6 buildings and associated amenities on the MMHS campus, totaling 154,904 square feet of demolition. The existing Building E and Buildings A/B at the Project Site would remain, with all other structures removed. No changes to the existing main sports field, baseball, or softball fields would occur except for the development of new field houses and additional parking adjacent to the softball field. The existing 25-meter pool would be replaced with a new Olympic-sized 50-meter pool. Figure 3-4*, Proposed Site Plan*, shows ultimate buildout of the Proposed Project.

Table 3-1 Summary of Building Demolition

Name	Square Footage
Former JCES Campus	
Building A: Administration Building	2,280
Building B: Kindergarten Classroom Building	5,941
Building C: Classroom Building	4,554
Building D: Classroom Building	4,535
Building E: Library	2,694
Building F: Classroom Building	7,952
Building G: Multipurpose Room Building	4,758
Buildings H and I (Cottage Portables)	1,920 (2 x 960 sf)
Portables: Portables P1 to P5	5,280 (5 x 960 sf; 1 x 480 sf)
Portables: P6 to P7	1,920 (2 x 960 sf)
Restroom Portable	480
Former JCES Subtotal	**42,314**
MMHS Campus	
Building F (300 Building): Music/Band/Choral Building	6,720
Building H (600 Building): Cafetorium	14,478
Building I (400 Building): Graphic Arts	4,561
Building J (Building 700): Gymnasium	20,758
Building J1: 'New' Gymnasium	18,835
Building K: Classroom Building	12,698
Pool	Pool: 60' x 75' Pool Equipment Building: 900
Field House	930
Portables (13 Interim Classrooms and Administration)	12,960 (1 x 1,920 sf; 8 x 960 sf; 1 x 480 sf; 3 x 960 sf)
Boys & Girls Club	9,120 (3 x 2,880; 1 x 480)
Bus Barn	9,700

Table 3-1 Summary of Building Demolition

Name	Square Footage
Maintenance and Operation Warehouse	930
MMHS Subtotal	**112,590**
Total Demolition Square Footage	**154,904**

Source: SMMUSD 2021.

As part of the Proposed Project, the District would merge two parcels (4469-017-900, 4469-018-903) into a single parcel that would total 49.06 acres. As shown in Table 3-2, *Summary of New Development*, the Proposed Project would result in 32 classrooms, 8 labs, and support spaces for a total of 173,595square feet of building space, providing the MMHS campus with a total of 51 classrooms, 12 labs, and support spaces for a total of 222,425 square feet of building space. Table 3-3, *Existing and Proposed Floor Area Ratios*, shows the existing and proposed Floor Area Ratios (FAR).

Table 3-2 Summary of Total Development

Building	Status	Classrooms	Labs	Square Footage	Maximum Height
Middle School Core					
Building D: Gymnasium/ Fitness/ PE and Student Activities and Food Services	New	2	0	22,376	36 ft
Middle School Core Subtotal		**2**		**22,376**	
High School Core					
Building C: Classrooms, Student Support Services, Administrative and Campus Support	New	23	8	68,019	36 ft
Building J: Gymnasium/ PE	New	2	0	36,708	45 ft
High School Core Subtotal		**25**	**8**	**104,727**	
Shared Amenities					
Building I: Special Education and Campus Wellness Center	New	1	0	5,094	28 ft
Building H: Visual and Performing Arts (VAPA)	New	4	0	30,094	45 ft
Building L: Aquatics Center/Field House	New	0	0	9,249	28 ft
Building M: Upper Field House	New	0	0	2,055	28 ft
Shared Amenities Subtotal		**5**		**46,492**	
Subtotal – New Development		***32***	***8***	***173,595***	
Existing Buildings A/B and Building E					
Buildings A/B: Administration/Library	Existing	7	4	35,315	28 ft
Building E: Classroom Building	Existing	12	0	13,515	28 ft
Subtotal Existing Development		***19***	***4***	***48,830***	
Total		**51**	**12**	**222,425**	

Source: LPA 2021.

3. Project Description

Table 3-3 Existing and Proposed Floor Area Ratios (FAR)

Site	Acres	Existing		Proposed	
		Building Square Feet	FAR	Building Square Feet	FAR
Merged High School and Middle School[1]	40.06	203,734	0.095	222,425	0.103
Equestrian Park	2.57	1,500	0.013	10,500	0.097
Maximum Allowable FAR[2]			0.150		0.150

[1] Merger proposed as part of the Proposed Project and Specific Plan.
[2] § 17.40.110.3.c. Malibu Municipal Code

Figure 3-4 Proposed Site Plan

HIGH SCHOOL
Building C - Classrooms, Student Support Services, Administration and Campus Support

Building J - Gymnasium, PE

MIDDLE SCHOOL
Building A/B (existing) - Administration, Library
Building E (existing) - Classrooms
Building D - Gymnasium/Fitness/PE and Student Activities and Food Service

SHARED USES
Building H - Visual and Performing Arts (VAPA)
Building I - Special Education and Campus Wellness Center
Building L - Aquatics Center/Field House
Building M - Upper Field House

OTHER

POTENTIAL OUTDOOR LEARNING OPPORTUNITES

EXISTING FEATURES/ BUILDINGS TO REMAIN

APPROXIMATE LOCATION OF MARQUEE SIGNS

Project Stalls By Lot:
A. 150 (existing)
B. 62 (existing)
C. 25
D. 129
E. 32
F. 14

0 450
Scale (Feet)

Source: LPA, 2021

3. Project Description

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3.3.1.1 MIDDLE SCHOOL CORE

The Middle School Core would be in the southeastern part of the campus, with a level academic quad in the middle. As shown in Table 3-4, *Summary of Middle School Core Development*, the Middle School Core would consist of four buildings, including the existing Building E and Buildings A/B. Building D would include a new middle school gym, student activities, and food services. Upon completion, the Middle School Core would result in 71,206 square feet of total development. The Middle School Core would include 21 total classrooms (12 classrooms in the existing Building E, 7 in the existing Buildings A/B, and 2 in the proposed Building D), administration offices, supportive services, a library, 4 science labs (in Buildings A/B), 2D art studio, lunch shelter, multipurpose room, gymnasium, and locker rooms.

The existing Buildings A/B contain the Science, Technology, Engineering, and Math (STEM) programs, student support services, and administration and supportive services, and has 7 classrooms and 3 labs. Buildings A/B are two stories with a maximum height of 28 feet and oriented east-west along Morning View Drive. Building E houses the humanities department and has 12 classrooms. The existing Building E is a two-story prefabricated modular building with a maximum height of 25.5 feet at the parapet, and it is located to the north of Buildings A/B.

The new Building D would be located to the north and northwest of the Buildings A/B, along the northern edge of the Middle School campus. Building D would house the physical education center and new student activities and food services. The physical education portion of the building would be one story and 16,932 square feet and would house a 50-foot by 84-foot multipurpose court with storage, 6 rows of bleachers, a lobby and restrooms, and a physical education center with a fitness studio; storage; boys' and girls' lockers and restrooms; and staff office, shower, and restroom. The student activities and food services portion of Building D would be two stories and 5,444 square feet and would have a maximum height of 36 feet along the northern boundary. The student activities area would include maker space and the Associated Student Body (ASB) student store and storage areas, and the food services area would include a warming kitchen, food court, restrooms, and a 3,600-square-foot exterior sheltered lunch area. Building D would serve as the gymnasium and have a maximum height of 36 feet above grade to meet the National Federation of State High School Association's (NFHS) minimum interior height requirement of 23 feet clear from floor to ceiling for competitive volleyball. Building D would provide an accessible path to the hardcourt area on the upper level. The Middle School Core buildings would be arranged around a quad that would serve as a central gathering area for the Middle School students.

Table 3-4 Summary of Middle School Core Development

Building	Status	Classroom	Lab	Square Footage	Maximum Height
Middle School Core					
Buildings A/B: Administration/Library/ Classroom Building	Existing	7	4	35,315	28 ft
Building D: Gymnasium/ Fitness/ PE and Student Activities and Food Services	New	2	0	22,376	36 ft
Building E: Classroom Building	Existing	12	0	13,515	25.5 ft
Total-Middle School Core		**21**	**4**	**71,206**	

Source: LPA 2019.

3.3.1.2 HIGH SCHOOL CORE

The High School Core would be in the southwestern part of the campus, occupying the former JCES campus. As shown in Table 3-5, *Summary of High School Core Development*, new Building C would be two stories and would include 25 classrooms, administration offices, supportive services, a library, 8 science labs and maker spaces, Art 3D sculpture/ceramics studio, lunch shelter, and a career center. Building C would total 68,019 square feet and be designed to fit the natural topography of the site, so that the southern part of the building fronting and visible from Morning View Drive would have a maximum height of 36 feet above grade, with an exhaust hood required for science labs extending to a maximum height of 41 feet above grade, but the exhaust hoods are near the center of the roof area and are not visible from Morning View Drive.

In addition to Building C, the High School Core would include an approximately 36,708-square-foot main gymnasium and dance/weights rooms (new Building J), which would be located in the center of the campus adjacent to the hardcourts. Building J would have a maximum height of 45 feet and would include team rooms and four California Interscholastic Federation (CIF) regulation hardcourts for indoor sports. Building C would contain high bay/high volume spaces to house the library, student union, and career center. The high bay spaces are required to provide the students with adequate functioning spaces conducive to 21st-century learning as defined in the Campus Plan Education Specifications. The interactive, collaborative nature of this space requires a high-volume ceiling.

Table 3-5 Summary of High School Core Development

Building	Status	Classroom	Lab	Square Footage	Maximum Height
High School Core					
Building C: Classrooms, Student Support Services, Administrative and Campus Support	New	23	8	68,019	36 ft[1]
Building J: Gymnasium/ PE	New	2	0	36,708	45 ft
Total-High School Core		**25**	**8**	**104,727**	

Source: LPA 2021.
[1] Building height would be 36 feet above grade; however, one exhaust hood would extend to a maximum height of 40 feet above grade.

3.3.1.3 SHARED USES

In addition to developing the Middle School Core and High School Core areas, the Proposed Project would develop new shared facilities. As shown in Table 3-6, *Summary of Shared Uses*, the shared facilities would include a performing arts center (new Building H), wellness center and spaces for special education (new Building I), aquatics center/field house (Building L), and pool. As shown in Figure 3-4, the new shared facilities would be built to the north of the Middle School and High School Cores and west of the existing main sports field. The Boys & Girls Club building, either a newly constructed building or relocation of the existing buildings, next to the tennis courts near the northwestern part of the Project Site (for the purposes of this DEIR, it is assumed the existing buildings would be demolished and new facilities constructed).

Shared Performing Arts Facility

Under the Proposed Project, the performing arts center (Building H) would have a maximum height of 45 feet above grade for the theater portion, and 36 feet above grade for the remainder of the performing arts facilities. High school performing arts facilities require a vertical stage opening of 25 feet (to the bottom of the proscenium). In addition, the long-span structure and tension-lighting grid ceiling system would add 15 feet above the stage opening plus 5 feet for roof slope and parapet. This makes a total height of 45 feet, allowing the school to produce the types of theatrical performances expected in a high school theater curriculum. Buildings I, L, and M would be a maximum of 28 feet above grade.

Shared Sport and Recreational Facilities

As part of the Project, the existing 25-meter pool would be replaced with a new Olympic-size 50-meter pool. As with the existing pool, the updated pool would serve recreational community uses as well as sporting events such as swim and water polo. In addition to the new gymnasium, weight room, aquatic center and locker rooms, the existing athletic field, baseball, and softball fields would receive minor improvements. A new field house (new Building M) would be constructed for the baseball and softball fields, and one for the athletic field (new Building L). The existing public address (PA) system and speakers at the athletic field would be relocated to the proposed ADA-compliant press box (same use as current). Additionally, the Proposed Project would add two new unlit tennis courts to the existing tennis court area on the northern side of the Project Site. The Proposed Project would also extend pedestrian trails throughout the Project Site to improve pedestrian circulation, as described in more detail in Section 3.3.7, *Pedestrian Access*. The pedestrian trails would include turnouts/viewpoints, which would be used as outdoor classroom spaces and respites.

Table 3-6 Summary of Shared Uses

Building	Status	Classroom	Lab	Square Footage	Maximum Height
Building I: Special Education and Campus Wellness Center	New	1	0	5,094	28 ft
Building H: Visual and Performing Arts (VAPA)	New	4	0	30,094	45 ft
Building L: Aquatics Center/Field House	New	0	0	9,249	28 ft
Building M: Upper Field House	New	0	0	2,055	28 ft
Total Shared Amenities		**5**		**46,492**	

Source: LPA 2019.

3.3.2 Student Capacity and Schedule

The City of Malibu has a current population of approximately 10,654 compared to 12,645 in 2010, a decrease of 15.7 percent (US Census 2020). Additionally, the share of the population of Malibu under 18 years of age is 15.3 percent, which is lower than the regional share of 23.4 percent. Malibu's seniors (65 and above) make up 24.2 percent of the population, which is higher than the regional share of 13 percent. The most commonly occurring household size is two people (40.4 percent) and the second most common is one person (33.2 percent). Malibu has a higher share of single-person households than the South California Association of

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Governments (SCAG) region overall (33.2 percent vs. 23.4 percent) and a lower share of seven or more person households than the SCAG region overall (0.6 percent vs. 3.1 percent) (Malibu HE 2021). Further, before the Woolsey Fire, the City averaged 1.5 residential building permits per 1,000 residents, but only four such permits were issued in 2018 (SCAG 2019). Malibu has fewer school-age children than a similarly populated district.

Consistent with the City's population decrease, enrollment at the campus has been steadily decreasing since 2006 from a high of approximately 1,576 (281 students at JCES and 1,295 at MMHS) to 1,142 (197 at JCES and 945 at MMHS) in 2018-2019. Enrollment since 2015 to 2020 at the campus has decreased by 15 percent. In the 2019-2020 school year after the closure of JCES, the student population at MMHS was 862, and in the current 2020-2021 school year, enrollment further declined to 784 students, as shown in Table 3-7, *Student Enrollment by Grade Level*.

Table 3-7 Student Enrollment by Grade Level

Year	SCHOOL	TK	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	Percent Decrease per Year
2006	CABRILLO		44	40	45	52	48	52								281	
2006	MMHS								161	174	173	219	197	202	169	1295	
2006	**TOTALS**	**0**	**44**	**40**	**45**	**52**	**48**	**52**	**161**	**174**	**173**	**219**	**197**	**202**	**169**	**1576**	**-**
2007	CABRILLO		57	41	38	47	56	51								290	
2007	MMHS								148	162	172	177	224	188	207	1278	
2007	**TOTALS**	**0**	**57**	**41**	**38**	**47**	**56**	**51**	**148**	**162**	**172**	**177**	**224**	**188**	**207**	**1568**	**1%**
2008	CABRILLO		48	54	47	41	51	56								297	
2008	MMHS								140	164	164	177	174	215	173	1207	
2008	**TOTALS**	**0**	**48**	**54**	**47**	**41**	**51**	**56**	**140**	**164**	**164**	**177**	**174**	**215**	**173**	**1504**	**4%**
2009	CABRILLO		32	41	50	52	42	55								272	
2009	MMHS								163	156	173	178	168	170	205	1213	
2009	**TOTALS**	**0**	**32**	**41**	**50**	**52**	**42**	**55**	**163**	**156**	**173**	**178**	**168**	**170**	**205**	**1485**	**1%**
2010	CABRILLO		40	32	41	51	46	44								254	
2010	MMHS								145	161	150	176	174	177	177	1160	
2010	**TOTALS**	**0**	**40**	**32**	**41**	**51**	**46**	**44**	**145**	**161**	**150**	**176**	**174**	**177**	**177**	**1414**	**5%**
2011	CABRILLO		38	37	35	44	54	45								253	
2011	MMHS								137	161	166	153	183	175	182	1157	
2011	**TOTALS**	**0**	**38**	**37**	**35**	**44**	**54**	**45**	**137**	**161**	**166**	**153**	**183**	**175**	**182**	**1410**	**0%**
2012	CABRILLO		34	38	37	41	45	55								250	
2012	MMHS								157	142	162	176	151	181	175	1144	
2012	**TOTALS**	**0**	**34**	**38**	**37**	**41**	**45**	**55**	**157**	**142**	**162**	**176**	**151**	**181**	**175**	**1394**	**1%**
2013	CABRILLO		34	32	37	38	46	48								235	
2013	MMHS								172	153	144	177	184	151	182	1163	
2013	**TOTALS**	**0**	**34**	**32**	**37**	**38**	**46**	**48**	**172**	**153**	**144**	**177**	**184**	**151**	**182**	**1398**	**0%**
2014	CABRILLO		37	35	33	39	33	48								225	
2014	MMHS								157	137	158	148	170	182	148	1100	

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Table 3-7 Student Enrollment by Grade Level

Year	SCHOOL	TK	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	Percent Decrease per Year
2014	**TOTALS**	**0**	**37**	**35**	**33**	**39**	**33**	**48**	**157**	**137**	**158**	**148**	**170**	**182**	**148**	**1325**	**5%**
2015	CABRILLO		22	33	35	29	40	35								194	
2015	MMHS								127	158	147	169	154	175	175	1105	
2015	**TOTALS**	**0**	**22**	**33**	**35**	**29**	**40**	**35**	**127**	**158**	**147**	**169**	**154**	**175**	**175**	**1299**	**2%**
2016	CABRILLO	11	26	22	31	33	32	40								195	
2016	MMHS								99	117	161	155	158	154	159	1003	
2016	**TOTALS**	**11**	**26**	**22**	**31**	**33**	**32**	**40**	**99**	**117**	**161**	**155**	**158**	**154**	**159**	**1198**	**8%**
2017	CABRILLO	6	31	28	22	35	39	34								195	
2017	MMHS								113	107	116	159	153	152	152	952	
2017	**TOTALS**	**6**	**31**	**28**	**22**	**35**	**39**	**34**	**113**	**107**	**116**	**159**	**153**	**152**	**152**	**1147**	**4%**
2018	CABRILLO	14	20	28	32	24	35	44								197	
2018	MMHS								116	112	112	135	163	151	156	945	
2018	**TOTALS**	**14**	**20**	**28**	**32**	**24**	**35**	**44**	**116**	**112**	**112**	**135**	**163**	**151**	**156**	**1142**	**0%**
2019	MMHS								112	114	108	108	125	147	148	862	
2019	**TOTALS**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**112**	**114**	**108**	**108**	**125**	**147**	**148**	**862**	**25%[1]**
2020	MALIBU MIDDLE								85	125	115					325	
2020	MALIBU HIGH											111	114	123	149	497	
2020	**TOTALS**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**85**	**125**	**115**	**111**	**114**	**123**	**149**	**822**	**5%**
															Percent Decrease between 2006 and 2020		**48%**

Source: California Department of Education
Note: Student enrollment for the 2020-2021 school year is 784 students.
[1] Note that the 25 percent decrease observed in 2019 is due to the District Realignment that combined JCES with the Point Dume Marine Science School in 2019.

Moreover, enrollment is not projected to increase because lower (feeder) grades have been tracking below historical levels, indicating a decrease in future enrollment at middle and high school grades. Enrollment levels are expected to decrease over the coming decade, with a projected enrollment of 533 in 2025 (Decision InSite 2021). Based on enrollment projections by Decision Insite LLC, the District anticipates a total enrollment of approximately 150 middle school students and 225 high school students, for a total of 375 students by 2030, which would represent a 12 percent reduction in student population compared to 2017 (Decision Insight 2021).

The existing MMHS campus has the capacity to seat approximately 1,200 students, as evidenced by the 2006 enrollment, but no longer meets the District's educational requirements due to many of the buildings' sizes and conditions. The Proposed Project would not increase the capacity of the MMHS campus but would be designed to support the regrowth of the community from the Woolsey Fire.

School hours would remain the same as existing, from 8:00 am to 3:00 pm, with staff and students of the middle/high school arriving on campus between approximately 7:00 am and 8:00 am and leaving between approximately 3:00 pm and 5:00 pm and with occasional special events and athletic events during weeknights and/or weekends. Additionally, the Visual and Performing Arts program uses the auditorium after school, typically until 6:00 pm, and the Boys & Girls Club on the campus is open Monday through Friday from 9:00 am to 6:30 pm.

3.3.3 Community/Civic Center Use

When the school facilities are not in use and are not scheduled for school-sponsored or other District-related events, the Civic Center Act permits certain community organizations and members to use school facilities for their events by obtaining a Civic Center Permit from the SMMUSD or the City of Malibu Master Facilities Use Agreement with SMMUSD. Permitted events may include community and/or city use of the playfields, common areas, and classrooms, as permitted in the 2019 "Master Agreement between SMMUSD and the City of Malibu Regarding the Joint Use of School District Facilities" (SMMUSD/City of Malibu 2019).

Operation of the school facilities for community use typically occur outside normal school operating hours, generally between 3:00 pm and 10:00 pm on weekdays, and between 8:00 am and 10:00 pm on Saturdays and Sundays. Parking for Civic Center uses would be provided in the school's on-site surface parking lots. The aquatic center is used for community and school activities from 5:30 am through 8:00 am on weekdays and often before 8:00 am on weekends and breaks. Because the Proposed Project would develop additional facilities, there may be a commensurate increase in community use with its implementation. The Proposed Project would not change or modify the restrictions imposed on the athletic field lighting (Coastal Development Permit (CDP) 12-024) or the lighting associated with the 150-space Parking Lot A under the existing coastal development permit (CDP No. A-MAL-13-030). Table 3-8, *Existing and Buildout Community Use Facilities*, shows the existing facilities available for community use and the proposed facilities.

Table 3-8 Existing and Buildout Community Use Facilities

Name	Square Footage / Unit Count
Existing Community Use Facilities	
MMHS Building H (600 Building): Cafetorium	14,478
MMHS Building J (Building 700): Gymnasium	20,758
MMHS Building J1: 'New' Gymnasium	18,835
MMHS Building K: Classroom Building	12,698
JCES Building E: Library	2,694
JCES Building G: Multipurpose Room Building	4,758
Pool	1
Track and Field	1
Baseball Field	1
Softball Field	1
Tennis Courts	4
Subtotal Existing	**74,221**
Proposed Community Use Facilities	
Building D: Middle School Gymnasium/ Fitness/ PE	16,932
Building J: High School Gymnasium	36,708
Building H: Shared Visual and Performing Arts (VAPA)	30,094
Building L: Aquatics Center/Field House	9,249
Building M: Upper Field House	2,055
Pool	1
Boys & Girls Club	9,120
Track and Field	1
Baseball Field	1
Softball Field	1
Tennis Courts	6
Subtotal Proposed (Buildout):	**104,158**
Net Increase	**29,937 Square Feet and 2 Tennis Courts**

Source: SMMUSD 2021.

3.3.4 Vehicle Access, Circulation, and Parking

Regional vehicle access to the Project Site is provided via PCH. Primary local access to the Project Site is from Morning View Drive, approximately 0.3 mile northeast of the intersection of Morning View Drive and PCH, and 0.9 mile southeast of the intersection of Guernsey Avenue and PCH. Morning View Drive is a narrow, two-lane, local roadway that provides direct access to single-family homes in the area as well as to the existing MMHS and former JCES campuses and the Malibu Equestrian Park.

Site access would remain along Morning View Drive, with a centrally located drop-off area for buses and parents/guardians between the Middle School Core and High School Core areas. The District would relabel the parking lots and reconfigure parking to result in an increase in overall site parking and an improved pick-up and drop-off location on Morning View Drive. The new drop-off/pick-up area would be able to accommodate up to five school buses and would have parking spaces for visitor use (Parking Lot C). Figure

3-5, *Proposed Site, Access, Circulation, and Parking*, shows the proposed circulation under the Proposed Project. The Proposed Project would modify the existing access configuration to include:

- One 2-way driveway from Morning View Drive on the southeastern portion of the campus providing vehicular access to parking lots A and B. Parking lot A has already been constructed. The driveway would provide access to a total of 212 parking spaces. Parking lots A and B would have a one-way, counter-clockwise circulation. Currently, parking lot A is used as one of the areas for student drop-off. Lot B would be the closest parking lot to the future middle school buildings.

- Two 1-way driveways from Morning View Drive in the southern portion of the campus across Ebbtide Way providing vehicular access to parking lot C, which would consist of 25 spaces. The eastern driveway would provide ingress and the western driveway egress. School buses would use this area for student drop-off and pick-up. Lot C would provide easy access to both the high school and the middle school.

- One 2-way driveway from Morning View Drive on the southwestern part of the campus providing vehicular access to parking lots D and E. This driveway would provide access to a total of 175 parking spaces. Lots D and E would be the closest lots to the proposed high school buildings.

- The existing 2-way driveway from Clover Heights Avenue on the northern part of the campus would provide access to the existing drop-off area as well as a new parking area F with 14 parking spaces. This lot is required to provide accessible parking to the upper fields. The parking lot would be for sports use only, with a controlled access gate that is locked during school hours. This provides limited access to the upper fields (baseball and soccer). Lot F is intended to serve athletic programs for school and non-school youth sports. The parking lot would be primarily required to provide ADA parking spaces for access to the upper fields and field house and would link to accessible paths. Other parking spaces in Parking Lot F would be provided for parking during athletic events and would prevent cars from parking in the cul-de-sac, which is an emergency turn-around.

- Curbside drop-off would continue on the northern side of Morning View Drive. However, no parking is allowed along Morning View Drive.

- Other than frontage improvements along Morning View Drive, no vehicle-related, off-site improvements are proposed.

Parking Lot D would be a new, approximately 129-space parking lot that would be developed to the north of Building C and would be accessed by a new entryway along the western edge of the campus from Morning View Drive. Parking Lot E would be constructed during Phase 3 and would have 32 parking spots and be connected by the shared driveway to serve both the high school and the Boys & Girls Club. A small parking lot (Parking Lot F) with approximately 14 spaces would be developed along the northeastern boundary of the softball field with access from Clover Heights Avenue. Table 3-9, *Campus Proposed Project Buildout Parking Count*, shows the name and parking count for each lot and the construction phasing of each lot. The Proposed Project would not change or modify the restrictions imposed on the lighting associated with the 150-space Parking Lot A under the existing CDP (CDP No. A-MAL-13-030).

Table 3-9 Campus Proposed Project Buildout Parking Count

Existing Parking Lot	Existing Spaces	Proposed Changes	Spaces Under the Proposed Project	Construction/Demolition Phase
150-Space Parking Lot (E)	150	Renamed to Parking Lot A	150	To Remain
Lower Parking Lot (D)	62	Renamed to Parking Lot B	62	To Remain
Student Parking Lot A	119	Removed		4
JCES Parking Lots	37	Removed		1
Service Lot	7	Removed		3
		Parking Lot C (New)	25	1
		Parking Lot D (New)	129	1
		Parking Lot E (New)	32	3
		Parking Lot F (New)	14	3
Total	**375**		**412**	

Source: SMMUSD 2020.
Note: 11 spaces reserved for campus/service use within the bus barn would also be removed as part of the Proposed Project.

3.3.5 Bus Barn Relocation

As part of the Proposed Project, the District would consider relocating the existing bus barn. If determined necessary based on final design of the various phases, the bus barn could be moved from its current location on campus to a District-owned location within the boundaries of the Malibu Equestrian Center. Operational characteristics would be the same as the existing bus barn. Bus testing operations begin at 6:00 am during school days. Startup testing includes momentary testing of horns and blinkers. Three buses would be in operation on a daily basis (no weekend operation). Buses depart the facility at 6:45 am and continuously use the facility until approximately 6:00 pm. Because of the varied bell schedules for middle and high schools, frequency and exact timing would vary day-to-day. Any maintenance and washing activities happen at an off-site location, as in current condition. Buses would access the bus barn from the campus via the existing access road off Merritt Drive from Morning View Drive. The current bus barn has space for up to five buses but typically operates with three buses on a daily basis, and no change in operation would occur.

3.3.6 Pedestrian Access

Pedestrian access is illustrated in Figure 3-6, Pedestrian Circulation Plan. As shown, primary pedestrian access to the Project Site would remain at three points along Morning View Drive, with access at the new drop-off area. Clover Heights Avenue would continue to provide limited pedestrian access to the athletic fields (controlled access gate). All pedestrian circulation would be wheelchair accessible via a network of vertical transitions such as ramps and/or elevators connecting the parking lots with athletic and educational facilities throughout the campuses. Additionally, the Proposed Project would include a pedestrian trail system that starts along the Environmentally Sensitive Habitat Area (ESHA) on the west and connects to a larger system of existing walking trails around the Equestrian Park and surrounding hills (see Section 3.3.15 for more information regarding ESHA). Fencing would surround the entire campus. Ornamental fencing near Morning View Drive and the proposed buildings would allow the MMHS and former JCES campuses to be secure during school days and would reinforce a single point of entry for each school. Wildfire-permeable fencing consistent

with the City of Malibu Local Coast Program (LCP) would run along the east, north, and west sides of the Project Site.

3.3.7 Wayfinding and Informational Signage

Campus identification and wayfinding would be provided because the trails and joint use facilities would be open to the public. The Proposed Project would include two marquee signs along Morning View Drive to guide parents and visitors. The proposed marquee signs would be single-sided monument signs 15 feet 6 inches wide by 7 feet 6 inches tall and would contain a 10-foot by 4-foot LED display screen with 10 mm pixel spacing and dimmable brightness and timing; be placed on a concrete wall support; and have an internally illuminated logo. Marquee signs are required by the District for proper communications with the students and the community and serve a multitude of communication needs, including emergency and safety communications. Additionally, all buildings would have nonilluminated identification signs mounted flush to the wall to comply with public safety requirements.

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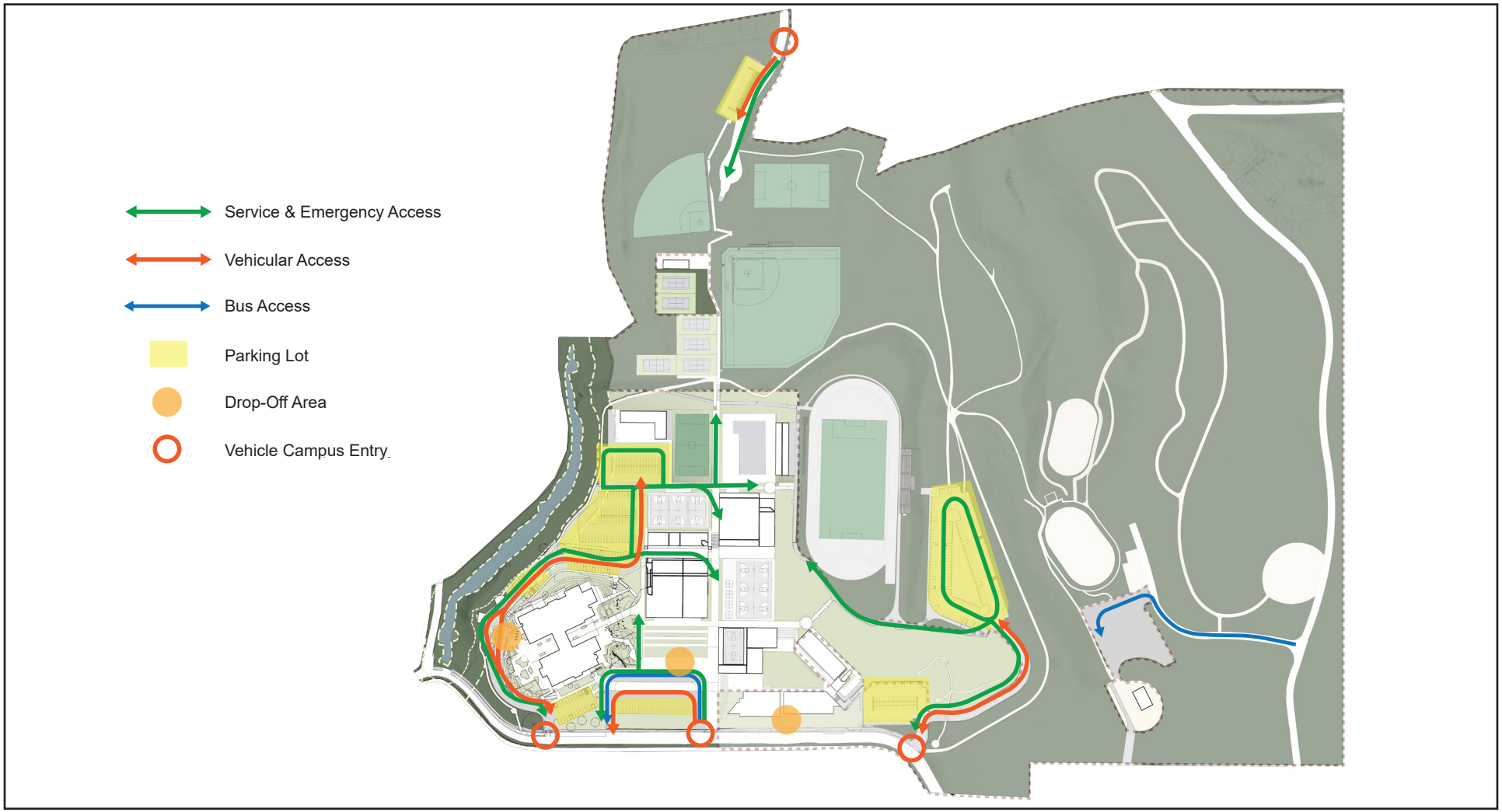
Figure 3-5 Proposed Site, Access, Circulation, and Parking



Source: Spurlock Landscape Architects, 2021

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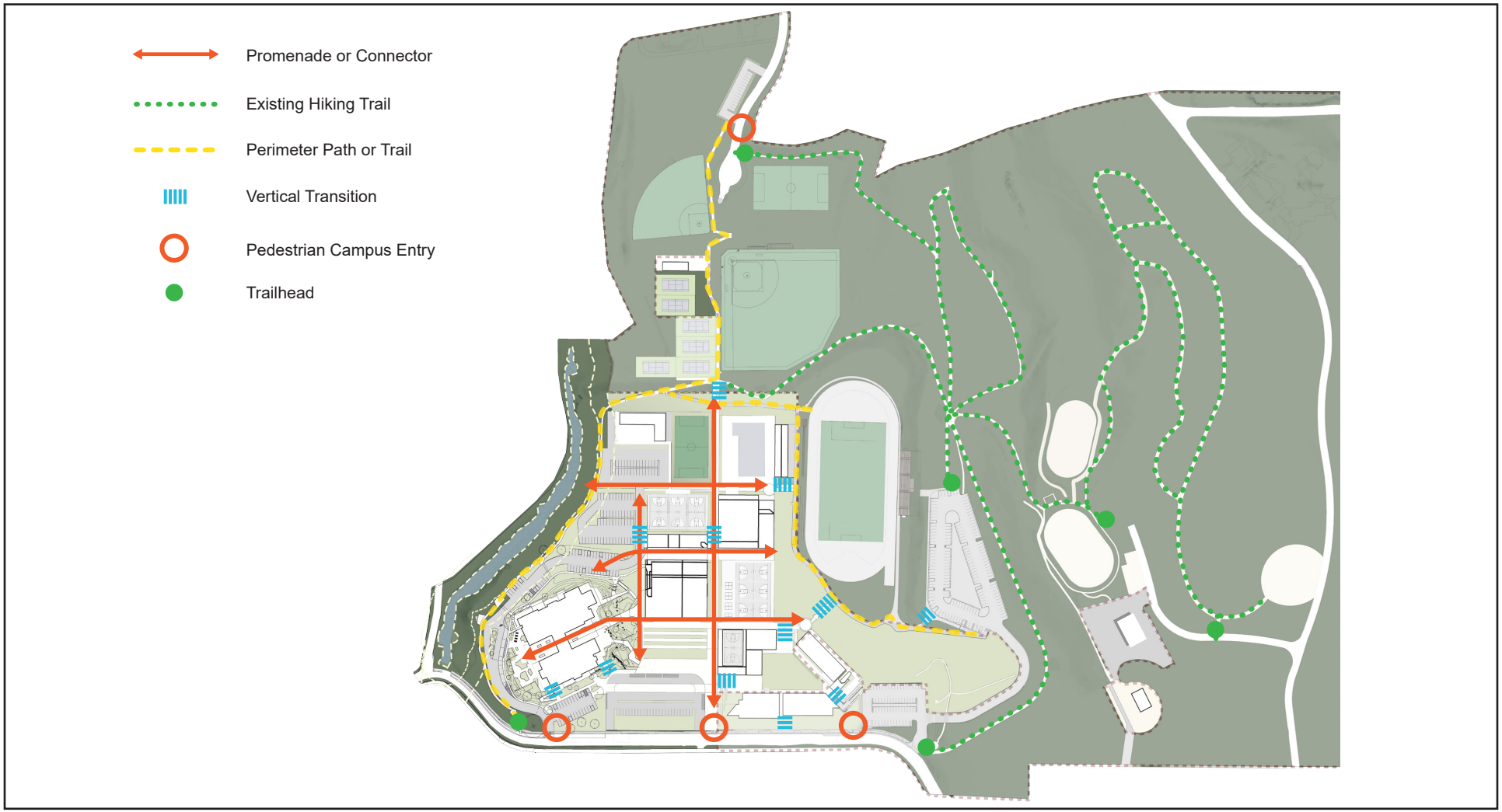
Figure 3-6 Pedestrian Circulation Plan



Source: Spurlock Landscape Architects, 2021

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3.3.8 Infrastructure

Utility improvements necessary to serve the proposed replacement buildings would be constructed. The future on-site utilities would connect to existing facilities serving the site. The proposed domestic and fire water lines would connect to the existing 12-inch public water main on Morning View Drive, and water would be served by the Los Angeles County Waterworks District No. 29.

3.3.8.1 WASTEWATER SYSTEMS

Currently, 10 septic tanks exist on the former JCES and MMHS campuses. These wastewater systems consist of septic tanks, distribution boxes, leach fields, and seepage pits. A typical septic system consists of one septic tank connected to several seepage pits. The existing septic systems are in the following locations:

- Septic System 1 is under the Lower Parking Lot (D).
- Septic System 2 was a cesspool removed previously (no longer present).
- Septic System 3 is adjacent to the current Auditorium and Building H.
- Septic System 4 is directly south of the existing Auditorium.
- Septic System 5 is near the current Building K.
- Septic System 6 is under the existing basketball courts, east of Building J.
- Septic System 7 is on the southwestern boundary of the Project Site.
- Septic System 8 is to the west of Building K.
- Septic System 9 is south of the existing JCES library.
- Septic System 10 is under the existing JCES Building C but was disconnected and is no longer being used.
- Septic System 11 is to the north of the existing Bus Barn.

The Proposed Project would reconfigure the existing septic system. As shown in Figure 3-7, *Wastewater Phasing Plan*, the Proposed Project would result in 7 total septic systems. The Proposed Project would remove septic systems 6 through 11 and would add five septic systems that would be developed under the Proposed Project in the following locations:

- **Septic System 1.1** would be under the proposed Parking Lot B (currently Parking Lot D). The tank and seepage pits would remain as is but total flow to this system would be modified.
- **Septic System 2.1** would be near Building D and serve Building D. The tank and seepage pits would be new and would replace the old system 5.0, which would be removed.

- **Septic System 3.1** would be to the west of Building A/B. The tank and seepage pits would remain as is but total flow to this system would be modified.
- **Septic System 4.1** would be under Parking Lot C and serve the Theatre and Performing Arts Buildings. The tank and seepage pits would be new and would replace old system 4.0, which would be removed.
- **Septic System 5.1** would be adjacent to the Malibu Equestrian Park and would serve the bus barn. The tank and seepage pits would be new and would replace old system 11.0, which would be removed.
- **Septic System 6.1** would be near the Malibu Middle School Hard Courts and serve Buildings J, L, and M. The tank and seepage pits would be new and would replace the old system 6.0, which would be removed.
- **Septic System 7.1** would be east of the Malibu High School Building (building C) and serve Malibu High School. The tank and seepage pits would be new and would replace old systems 7.0, 8.0, 9.0, and 10.0, which would be removed.

The decommissioning of existing septic systems and sizing and replacement with new infrastructure would be conducted so that sufficient systems remain in place and service is not disrupted.

3.3.8.2 DRAINAGE IMPROVEMENTS

The Project Site would be divided into seven drainage management areas (DMA). DMAs A, B, and E would drain to the existing ESHA, and DMAs C, D, F, and G would drain to Morning View Drive. The Proposed Project would increase the overall imperviousness of the Project Site and would continue to convey flows to existing outfall locations. Improvements would include water quality features to treat stormwater runoff generated within the phase development area and reduce runoff to match existing conditions. The Proposed Project would incorporate the total volume requirements that were developed during the master planning phase of the Proposed Project (see Table 3-10, *Stormwater Treatment*). Additionally, hard surface areas within the 100-foot buffer for the ESHA, excluding drive aisles, would be permeable surface materials that would increase infiltration along the ESHA and allow for a more natural hydrology of the ESHA.

Table 3-10 Stormwater Treatment

Phase	DMA	Area (acre)	85th% WQF (cfs)	85th% WQF (ft3)	0.75*WQF (cfs)	0.75*WQF (ft3)	Total Volume Required (ft3)
1	A	3.08	0.52	6421	0.57	6879	11,000
1	B	3.05	0.42	6422	0.46	6881	10,000
2	C	1.15	0.19	2395	0.21	2566	4,000
3	D	3.1	0.45	6557	0.5	7025	11,000
3	E	3.26	0.53	7311	0.58	7833	11,400
3	F	1.9	0.21	3486	0.3	3735	7,000
4	G	1.37	0.26	2481	0.28	3044	5,000

Source: Psomas 2021.

The Proposed Project would also include appropriate stormwater pipe sizing to adequately convey stormwater through the storm drain system onsite. Stormwater pipe sizes were determined based on 50-year design storm peak flow rates under normalized flow depth conditions (i.e., not pressurized). Pipe capacity calculations were performed to determine the minimum pipe size necessary for conveyance of each drainage management area in the Proposed Project phasing. Pipe sizes range between 18 inches and 25 inches, with an assumed minimum slope of 0.50 percent and are summarized in Table 3-11, *Storm Drainage Sizing*.

Table 3-11 Storm Drainage Sizing

WS Exhibit Label	Area (acre)	Q50 (cfs)	Minimum Size Pipe (0.5% slope)
DMA A	3.07	10	24 inch RCP
DMA B	3.11	10	24 inch RCP
DMA C	1.16	4	18 inch RCP
DMA D	3.17	10	24 inch RCP
DMA E	3.35	12	24 inch RCP
DMA F	1.69	6	18 inch RCP
DMA G	1.37	5	18 inch RCP

Source: Psomas 2021.

3.3.9 Lighting

3.3.9.1 OUTDOOR LIGHTING PROGRAM

The Proposed Project would install new and upgraded outdoor lighting within each development phase that would include lighting in both existing and proposed campus parking lots, pedestrian pathways, marquee sign lighting, and nighttime security- and safety-required lighting. All outdoor campus lighting would be designed to provide for the security and safety of students, staff, and visitors. Final design of the Proposed Project's outdoor lighting program must meet the requirements of the City of Malibu's Dark Sky Ordinance and adhere to the standards of the Malibu Local Coastal Program Local Implementation Plan §§ 4.6.2 and 6.5.G.

Maintenance and custodial staff typically leave the campus at 11:00 pm; therefore, consistent with the existing lighting program on the MMHS campus, the nighttime lighting would be controlled by an automatic timer and would be programmed to turn off at 11:30 pm each evening. On a limited number of occasions when school activities are scheduled to extend past 10:00 pm, such as an MMHS sports teams returning to campus following an "away" game or when a SMMUSD School Board meeting is held on campus, the lights' programmed "off" time would be overridden to accommodate such authorized uses. The Proposed Project would not change or modify the restrictions imposed on the athletic field lighting (CDP 12-024) or the lighting associated with the 150-space Parking Lot A under the existing CDP (CDP No. A-MAL-13-030).

3.3.9.2 POOL LIGHTING

In addition to the outdoor campus lighting described above, new lighting would be installed as part of the development of the new pool in Phase 4. As described in Section 3.3.1.3, the new pool would be an Olympic-sized, 50-meter pool intended to serve student sport and educational curriculum such as swimming and water polo as well as community uses. Pool and pool deck lighting would be replaced as part of the Project in order

to meet the needs and standards associated with this size of pool and intended uses. Lighting would be installed to meet the requirements of a Class II facility as identified by the Illuminating Engineering Society of North America (IESNA) (10th ed.), where lighting should be a minimum of 30 foot-candles over the pool and 20 foot-candles over the deck, as measured at the water level. Consistent with IESNA recommendations, lighting would also be provided within the pool basin, with the recommended luminance of 15 candelas per square foot (161 candelas per square meter). By meeting these standards, the pool lighting would also meet the requirements of California Building Code § 3115B.1, which requires a pool to have underwater and deck lighting so that lifeguards or other persons may observe, without interference of glare, every part of the underwater area, pool surface, and any diving appurtenances.

As with existing use and operation, the pool would be lit for an annual total of 524 hours, as detailed below in Table 3-12, *Pool Lighting*.

Table 3-12 Pool Lighting

Months	Days Lit	Times
July 1 – August 18	No Lights	-
August 19 – November 6	Monday – Friday (53 school days)	6:15pm – 8:45pm (132.5 hours total over this time period)
November 7 – March 12	Monday – Friday (74 school days)	5:15pm – 8:45pm (259 hours total over this time period)
March 13 – June 10	Monday – Friday (53 school days)	6:15pm – 8:45pm (132.5 hours total over this time period)
June 11 – June 30	No Lights	-

Source: SMMUSD 2021

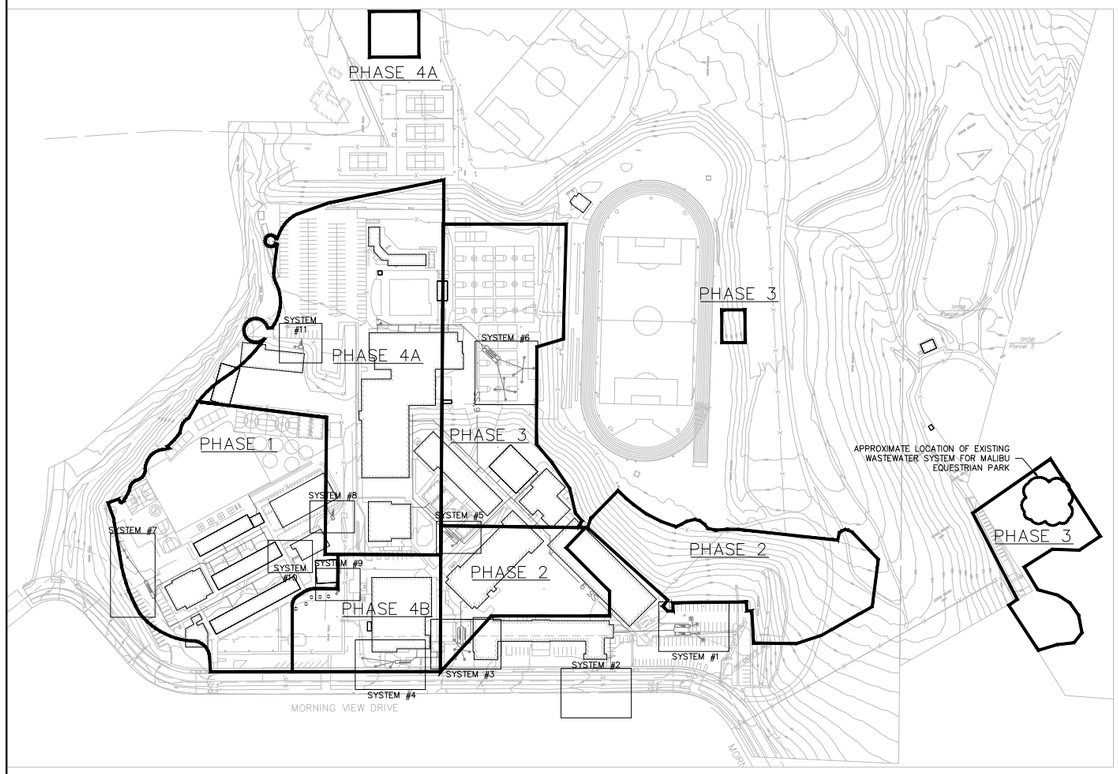
3.3.10 Solar Panel System (Resiliency Component)

Because of the campuses' location in a high-risk fire area and the increased severity of wildfire risks, mandated public utility shutdowns have led to approximately 20 days of lost instruction at MMHS. In addition, the cost of utilities continues to rise in California. To increase District resiliency, protect the learning environment, and maximize energy and operational savings, the Proposed Project would include development of an "islandable microgrid," or ground-mount photovoltaic (PV) solar array system with battery storage and energy control center. An approximately 422 kilowatt (kW) PV system with antireflective coating would be installed on the sloping hillside to the south of the existing Lot A and the main sports field and to the north/northwest of the new Middle School Building E (core classrooms building). A 500 kW- to 1,000 kW-hour battery storage system would be installed. The existing approximately 118 kW of PV on Building A/B would connect with the larger system. The solar panel system, shown in Figure 3-8, *Solar Panel Location*, would be installed as part of Phase 2.

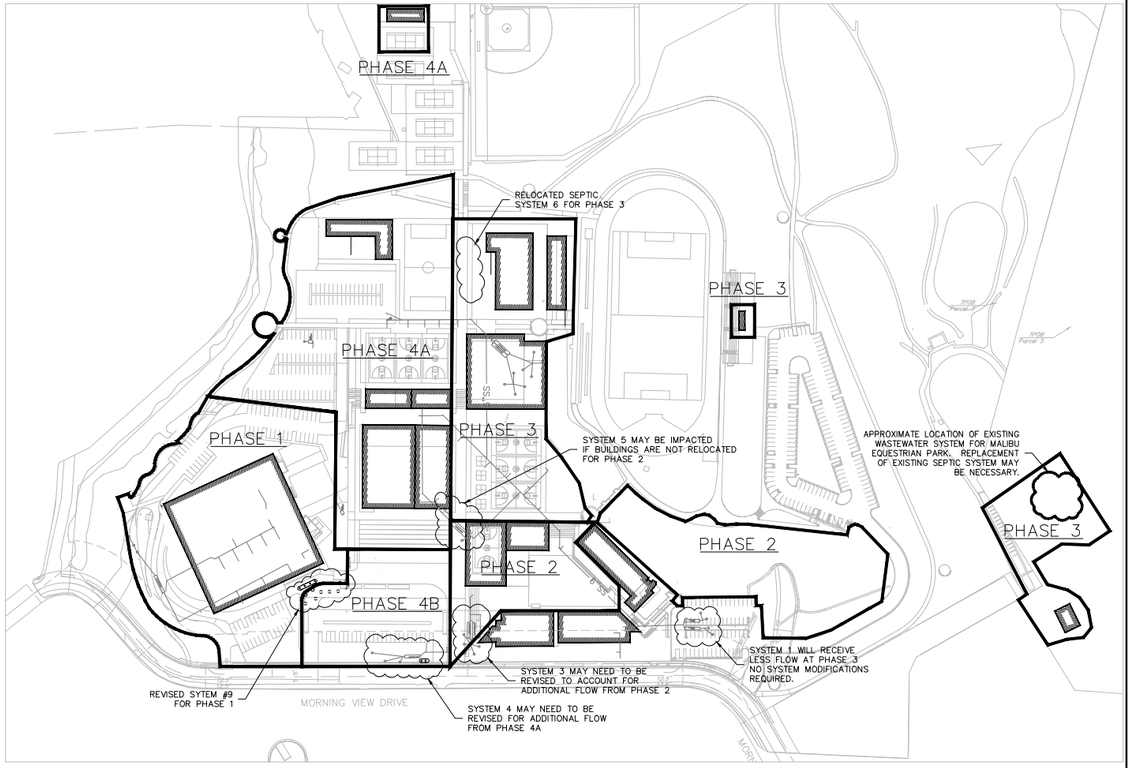
3.3.11 Solid Waste Disposal

Solid waste is gathered daily from each of the school buildings by custodial staff and taken to a central location for pickup. Other than small trash cans that are placed throughout the campus to discourage littering, trash facilities are screened from public view and accessible only to authorized employees. Though the location of some of the small trash cans may vary, the centralized collection points are not anticipated to change with implementation of the Proposed Project. And because no increase in capacity is planned, there should be no increase in solid waste from the campus.

Figure 3-7 Wastewater Phasing Plan



Existing Site Plan with Future Phases Overlay



Proposed Site Plan with Phases Overlay with Existing Wastewater Infrastructure

MALIBU HS AND MS MASTER PLAN REORGANIZED SCHOOL CAMPUS BUILDING LOCATIONS

○PIT X–X–X	SEEPAGE PIT TO BE USED AS PRIMARY DISPOSAL
◎PIT X–X–X	SEEPAGE PIT TO BE USED AS BACKUP DISPOSAL
⊙	CESSPOOL/SEEPAGE PIT TO BE ABANDONED
○MW–X	MONITORING WELL PER GEOLOGY REPORTS

0 300
Scale (Feet)

Source: AHSIRT Engineering, Inc., 2021

3. Project Description

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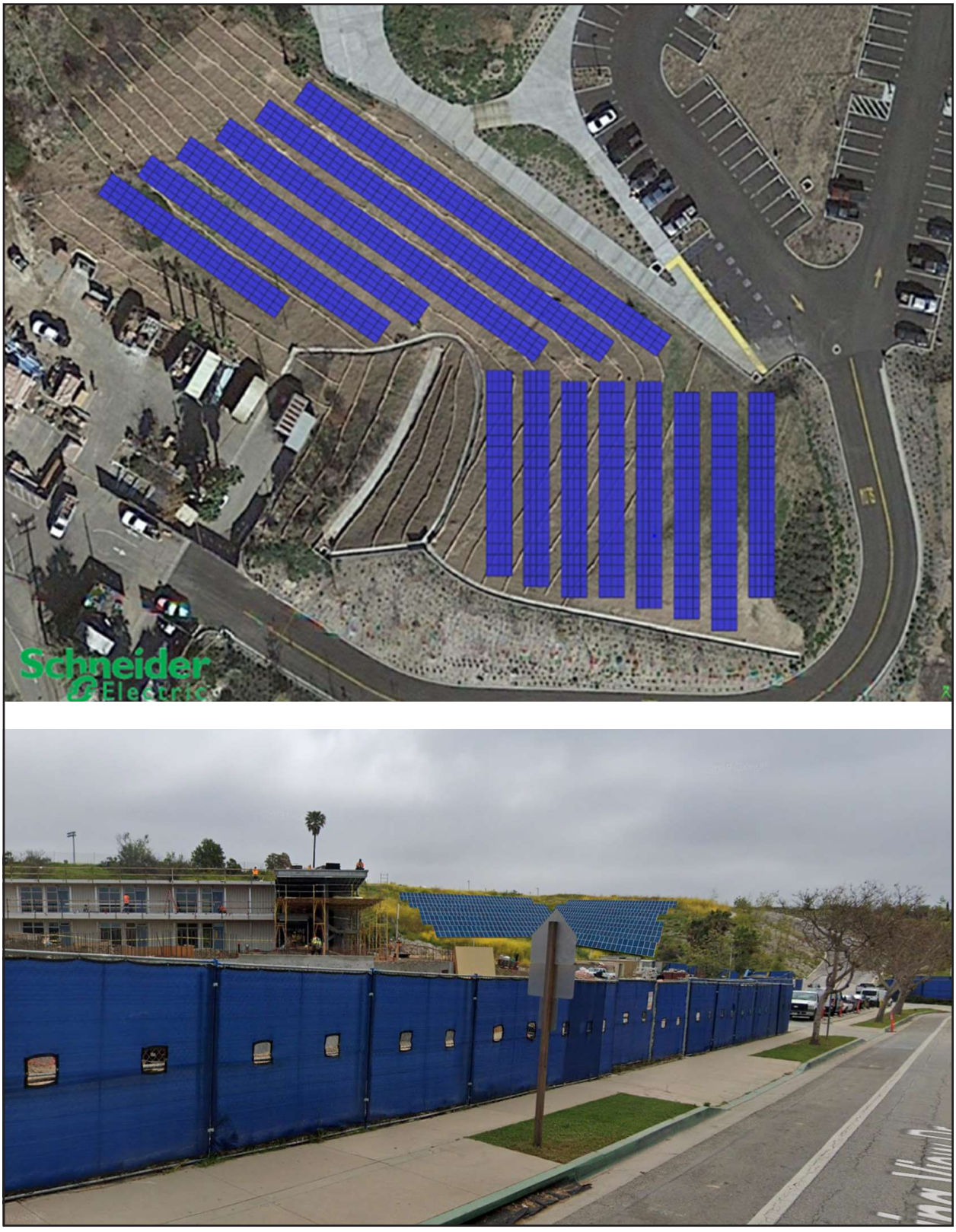
Figure 3-8 Solar Panel Location



Source: Schneider Electric, 2020

3. Project Description

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3.4 DEVELOPMENT STANDARDS

Overall, the development standards defined in the Specific Plan as outlined below meet the zoning and development requirements of the City. Higher ceilings in school instructional and creative space are the industry standard and has been part of new school construction for more than a decade and identified as vital for modern learning. The additional height provides improved ventilation, noise attenuation, and natural lighting. Similar building heights can be found in several school projects in California such as Newport Harbor High School Library: Newport Beach, New Library/ Media Center, 18 feet high ceiling; Lawndale High School Student Union: Lawndale, 22 feet high ceiling; E Stem High School, Eastvale, Makerspace/ Collaboration Learning Space: 18 feet high ceiling; Hugo Reid ES, Arcadia, Library/ Media Center, 18 feet high ceiling; and Johnson Middle School, Westminster, Maker Classroom, 16 feet high ceiling. The Proposed Project is intended to allow for similar ceiling heights which requires new development standard unique to the school.

With higher interior ceilings the exterior dimensions of the buildings are also higher. Generally, there is between 6 to 8 feet between the interior ceiling and the exterior roofline to provide for internal wiring, lighting, and ventilation. Ventilation equipment and other roof top architectural features would extend above the roofline. Development standards established for the Specific Plan include the building specifications such as heights, setbacks, design standards for signs and landscaping. To meet the standards established by the District's Educational Specifications, the California Interscholastic Federation, the National Federation of State High School Association, Buildings D, C, H and J must be 36 feet on average, with the science lab hood ventilation equipment for the science classrooms extending to 41 feet. These building heights would exceed the LCP and City's 28-foot height requirements; therefore Table 3-17, *Proposed Project Development Standards,* includes standards that would allow construction of the school to modern standards.

- Building C: High School Building north wing second floor contains high bay/high volume spaces to house educational uses. These high bay spaces are required to provide the students with adequate functioning spaces conducive to 21st Century learning as defined in the Campus Plan Education Specifications. The Student Union is programmed with a central space of 4,000 square feet of space. The interactive, collaborative nature of this space requires an appropriate high-volume ceiling. A high school Library, based on the District's Educational specifications, requires a variety of spaces within the Library, including a 3,000-square foot area that can double as Staff Development space.

- Required rooftop equipment would exceed the 2-foot maximum height above the roof plane for the science lab exhaust hood, as required by the American National Standard for Laboratory Ventilation (ANSI) Z9.5 as well as the National Fire Protection Association Standard NFPA 45, Chapter 7, § 7.2. The roof top would be occupied by students to support outdoor learning, including visual observation to ESHA. With student access to the roof deck, higher parapets or Guards are required to be 42 inches minimum height per California Building Code, Part 2, Volume 1, Chapter 10, § 1015.

- Building D: The Middle School gymnasium and multipurpose room (MPR) must meet the National Federation of State High School Association, (NFHS) minimum interior height requirement of 23 feet clear from floor to ceiling for competitive volleyball, the Specific Plan includes for 24 feet for adequate tolerance in design and construction.

- Building H: High School Performing Arts facilities require a vertical stage opening of 25 feet (to the bottom of the proscenium). In addition, the long span structure and tension lighting grid ceiling system would add 15 feet above the stage opening plus 5 feet for roof slope and parapet. This equates to a total height of 45 feet, providing for the school to produce the types of theatrical performances expected in a high school theater curriculum. A compromise would be made to create a variable open theater/performance space rather than a traditional proscenium space which would require a fly tower over 80 feet.

- Building J: Gymnasiums must meet National Federation of State High School Associations (NFHS) minimum interior height requirement of 23 feet clear from floor to ceiling for California Interscholastic Federation (CIF) Volleyball, the Specific Plan plans for 25 feet for adequate tolerance in design and construction and an additional 10 feet for long span structure and 5 feet for roof slope and parapet.

Development under the Specific Plan would conform to all other existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's Local Implementation Program (LIP) except for those listed under Table 3-17. The table outlines the Proposed Project's specifications along with the current City LIP and Municipal Code and reasoning for exceeding current City regulations.

3.4.1 Heights and Setbacks

The campus has varied topography within which several large buildings and plazas would be developed. To meet student safety and accessibility requirements, the buildings and areas surrounding them need to be as even as possible minimizing ramps, stairs, and abrupt changes in elevation. This would result in site grading and a change in the topography to accommodate the buildings. In some cases, the existing grade is such that entry would occur at one level and exit at a different level.

The following summarizes the development standards for the Proposed Project in a format similar to that of the City of Malibu Municipal Code (City of Malibu 2021):

A. The Proposed Project would be subject to the following development standards:

1. **Height.** Except as allowed in this section structures shall not exceed eighteen (18) feet above finished grade, except for chimneys, rooftop antenna, and light standards.

    a. Building C: High School Building shall not exceed a maximum height of thirty-six (36) feet finished grade, except for chimneys, rooftop antenna, and light standards that shall not exceed forty one (41) feet above approved grading plan.

    b. Building D: Middle School Gym/Multi-Purpose Room and Structures shall not exceed a maximum height of thirty-six (36) feet finished grade, except for chimneys, rooftop antenna, and light standards that shall not exceed forty (40) feet (see Figure 3-9, *Building C Proposed Elevation*).

    c. Building H: Theater/Performing Arts and shall not exceed a maximum height of forty-five (45) feet above finished grade.

    d. Building J: Gym/Physical Education shall not exceed a maximum height of forty-five (45) feet above finished grade.

e. Building L: shall not exceed a maximum height of eighteen (18) feet above finished grade, except for chimneys, rooftop antenna, and light standards that shall not exceed a maximum height of 28 feet.

f. For all other buildings, roof-mounted mechanical equipment shall be integrated into the roof design, screened, and may project no more than two feet higher than the structure roof height (screens included).

g. In no event shall the maximum number of stories above grade be greater than two.

2. Yards/Setbacks.

a. Building placement for Phase I shall be as shown on Figure 3-4, *Proposed Site Plan*, as approved by City Council. Building Placement for subsequent phases will be considered by the City as part of the site plan review process.

b. Any future buildings must comply with the following:

(1) Front yard setbacks shall be ten (10) feet from the street easement.

(2) Side yard setbacks shall be five feet;

(a) When adjacent to a residentially-zoned parcel(s) along a side yard, the setback shall be increased to ten (10) percent of the lot width or ten (10) feet, whichever is greater.

(b) When adjacent to the ESHA all buildings shall have a 100-foot setback from the ESHA. With the exception of access trails and fencing, and parking, all other improvements shall be setback 50 feet from the ESHA.

3. Rear yard setbacks shall be five (5) feet; however, when adjacent to a residentially zoned parcel(s) along the rear yard, the setback shall be increased to fifteen (15) percent of the lot depth or fifteen (15) feet, whichever is greater. **Site Development Criteria**. All proposed construction within the Project Site shall comply with the following site development standards:

a. Structure Size. The gross floor area of all buildings on a given parcel shall be limited to a maximum floor area ratio (FAR) of 0.15, or fifteen (15) percent of the lot area (excluding slopes equal to or greater than 1:1 and street easements). Additional gross floor area may be approved by the City council, up to the maximum allowed for the parcel under the general plan, where additional significant public benefits and amenities are provided as part of the project.

b. Landscaping and Site Permeability. Twenty-five (25) percent of the lot area (excluding slopes equal to or greater than 1:1 and street easements) shall be devoted to landscaping. The required five- (5) foot landscape buffer around the perimeter of parking areas pursuant to § 17.48.050(E)(1) shall count toward the twenty-five (25) percent requirement. An additional five (5) percent of the lot area (excluding slopes equal to or greater than 1:1 and street easements) shall be permeable.

c. Pool and pool deck lighting shall be installed consistent with the IESNA standards for a Class II pool facility. Lighting shall be a minimum of 30 foot candles over the pool and 20 foot candles over the deck, as measured at the water level. for improved safety. Consistent with IESNA recommendations, lighting shall also be provided within the pool basin, with the recommended luminance of 15 candelas per square foot (161 candelas per square meter). All pool lighting shall

also be consistent with the California Building Code and § 3115B.1, where the pool must have underwater and deck lighting such that lifeguards or other persons may observe, without interference from direct and reflected glare from the lighting sources, every part of the underwater area and pool surface, all diving boards or other pool appurtenances.

d. Sports field lighting shall be limited to the main sports field and parking lots at Malibu High School. All new outdoor lighting shall adhere to the standards of Malibu Local Coastal Program Local Implementation Plan §§ 4.6.2 and 6.5.G and § 17.41 Malibu Dark Sky provisions of the municipal code.

e. All parking areas within the 100-foot ESHA area shall be paved with permeable pavement, to allow stormwater runoff to infiltrate into the soil below. Suspended paving systems shall be constructed below the permeable paving to treat and slow stormwater runoff before it reaches the ESHA. The system shall be designed to provide treatment and storage for stormwater but also promote healthy tree growth within parking areas.

4. **Grading.**

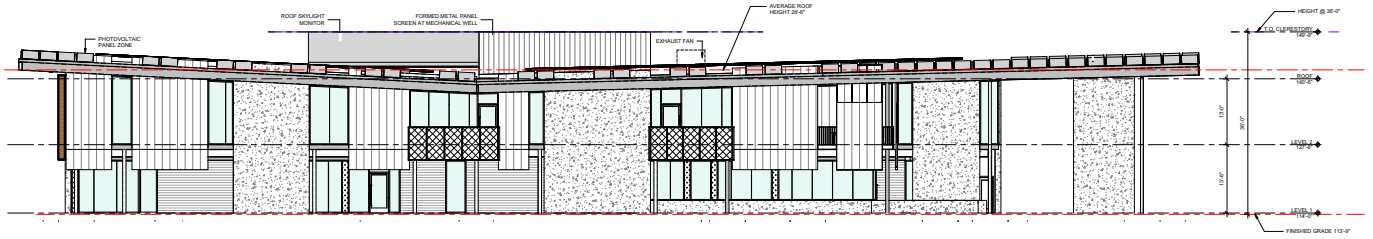
a. Grading for Phase 1 is shown in Table 3-16, *Proposed Project Cut/Fill by Phase*.

b. Approved by the City Council Action.

c. Grading for subsequent phases will be considered by the City as part of the site plan review process.

Figure 3-9 Building C Proposed Elevation

North Elevation



South Elevation

North Elevation Partial

North Elevation Partial

0 35
Scale (Feet)

Source: NAC Architecture, 2021

3. Project Description

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3.4.2 Landscaping

Landscaping would be provided along pathways, building perimeters, and within and around new parking lot areas (See Table 3-13, *MMHS Campus Plant Palette* and Figure 3-10, *Proposed Phase I Landscaping Plan*). Landscaping would be consistent with the requirements of the City of Malibu's Municipal Code, Chapter 9.22, "Landscape Water Conservation." Such requirements include that plants must be grouped into hydrozones—that is, with other plant species having similar water demand—and by their soil, sun, and shade requirements. Additionally, irrigation systems would be designed to prevent runoff, overspray, low-head drainage, and similar conditions when irrigation water flows or sprays onto unintended areas, such as walkways, driveways, roadways. Landscaping plans for subsequent phases would be provided as part of the site plan approval process.

Table 3-13 MMHS Campus Plant Palette

Latin Name	Common Name
Large Canopy Trees	
Juniperus californica**	California juniper
Metrosideros excelsus**	New Zealand Christmas Tree
Pinus torreyana**	Torrey Pine
Platanus racemosa***	California sycamore
Quercus species***	California native oak
Medium and Accent Trees	
Alnus rhombifolia***	White alder
Arbutus unedo or 'Marina'**	Strawberry tree
Cercis occidentalis/canadensis**	Western redbud /eastern redbud
Cordyline australis**	Dracaena spike
Heteromeles arbutifolia***	Toyon
Juglans californica**	Black walnut
Lagerstroemia 'Natchez'	Crape myrtle
Lyonothamnus floribundus	Catalina ironwood
Metrosideros collina 'Spring Fire'	Dwarf New Zealand Christmas Tree
Olea europea 'Swan Hill'	Olive
Umbellularia californica	California bay
Shrubs	
Arctostaphylos species***	Manzanita
Artemisia calfornica***	Californian sagebrush
Baccharis species***	Coyote bush
Ceanothus species	Wild lilac
Erigonum species	Buckwheat
Juniperus californica-- prostrate species	California juniper
Peritoma arborea***	Bladderpod
Pittosporum toberia 'Wheeler's Dwarf'	Dwarf pittosporum
Fragula californica***	California coffeeberry
Rhus integrifolia	Lemonade berry
Ribes speciosum***	California gooseberry

Table 3-13 MMHS Campus Plant Palette

Rosmarinus spp**	NCN
Westringia fruticosa**	Coast rosemary
Groundcovers/Grasses	
Carissa macrocarpa**	Natal plum
Dianella species**	Flax lily
Dieties bicolor/ irioides**	Fortnight lily
Festuca glauca 'Elijah Blue'*	Elijah blue fescue
Festuca species**	Native no-mow meadow mix
Juncus patens	California gray rush
Juniperus species**	Juniper
Lantana camara**	Lantana
Leymus condensattus 'Canyon Prince'**	Giant wild rye
Lomandra longfolia 'Breeze'*	Spiny-head mat rush
Muhlenbergia rigens	Deer grass
Myoporum parvifolium	NCN
Sedum species	Stonecrops
Senecio mandraliscae/serpens	Kleinia/blue chalksticks
Perennials/ Accents	
Agave species	Agave
Aloe species**	Aloe
Anigozanthos 'Bush Gold'	Kangaroo paw
*Dasylirion quadrangulatum/ wheeleri***	Mexican grass tree
Encelia californica	California bush sunflower
Hesperaloe parviflora	Red yucca
Kalanchoe species	Kalanchoe
*Keckiella cordifolia***	Heart-leaved penstemon
Opuntia species**	Prickly pear cactus
Penstemon species **	Beard tongue
Rosa californica***	California rose
Salvia species - native varieties	Sage
Yucca species	Yucca
Vines	
Jasminus polyanthum	Pink jasmine
Lonicera hispidula***	California honeysuckle
Vitis californica**	California grape

Source: Spurlock Landscape Architects, 2021.
* In Middle School Construction/CCD Plan, not on Coastal Permit
**In High School Plant List; not yet reviewed by Coastal Commission
*** Also on ESHA list.

A proposed trail outside of the 50-foot ESHA buffer would create accessible pedestrian access from Morning View Drive along the restored upland ESHA and the campus beyond. The trail is proposed to be decomposed granite paving, which is composed of natural, locally sourced, and permeable materials. The trail would connect

users to outdoor education overlooks and respites, small areas located for their views into the ESHA. These areas may include relevant interpretive signage dependent on the location.

The 100 foot ESHA buffer is anticipated to contain large areas of restored native landscape, after the removal of existing asphalt and lawn. It would also contain a small amount of vehicular circulation, which includes required fire access, and parking. The parking areas are proposed to be paved with permeable pavement, to allow stormwater runoff to infiltrate into the soil below. Suspended paving systems are also proposed below the permeable paving to treat and slow stormwater runoff before it reaches the ESHA. These systems not only provide treatment and storage for stormwater but also promote healthy tree growth within parking areas.

Native plant communities connect the Phase 1 high school site both visually and physically with the restored ESHA and buffer. The edges between the campus along the ESHA and adjacent hillside are proposed to be primarily composed of native plants that are also used within the ESHA. Stormwater basins along these edges and within the central campus also utilize some of the same native riparian plant species to capture, slow down and filter campus stormwater runoff.

3.4.3 Sustainability Features

All new buildings developed under the Proposed Project would be designed using applicable green building practices, including those of the most current Building Energy Efficiency Standards (Title 24, California Code of Regulations, Part 6) and California Green Building Standards Code (CALGreen; Title 24, California Code of Regulations, Part 11). The Building Energy Efficiency Standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. CALGreen is California's statewide "green" building code. Its purpose to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts that have a reduced negative impact or positive environmental impact and encourage sustainable construction practices in the following categories: planning and design; energy efficiency; water efficiency and conservation; water conservation and resource efficiency; and environmental quality. Additionally, the District has an adopted Districtwide Plan for Sustainability that incorporates sustainability into education services and all aspects of student learning and integrates climate protection, resource efficiency, waste management, and other sustainability practices into District operations. (See also Section 3.3.10, *Solar Panel System*).

3.4.4 Restoration Plan in the ESHA

There is very little natural vegetation on-the Project Site, consisting primarily of grasses, ivy, brush, ruderal species, and scattered ornamental trees with pockets of native riparian and upland species, including native trees in various stages of development. However, a stream course designated as an Environmentally Sensitive Habitat Area (ESHA) by the City of Malibu's LCP maps occurs on the western edge of the MMHS campus Developed portions of the existing campus are within the mapped ESHA boundaries, including portions of the JCES play yard, the bus barn, and existing Parking Lot A. The ESHA map also shows a stream approximately 400 feet northwest of the campus. This stream consists of an underground pipe from Floris Heights Road that flows onto the school property and daylights into the ESHA streambed along the school's western property boundary.

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The stream course along the District's western boundary extends for approximately 1,088 feet and varies between approximately 24 and 85 feet wide, covering an area of approximately 0.68 acres determined to be potentially under regulatory jurisdiction with an additional approximately 1.35 acres within a 50-foot buffer of the ESHA for a total of approximately 2.03 acres. The stream course is deeply incised with steep banks. The drainage is unlined along its entire length. The upstream end of the drainage has a broad, concave cross-section with no abrupt break in bank slope. Soils in this area were saturated and surface water was present during multiple site visits. The middle and downstream end of the drainage is more incised, with steep slopes and a narrow channel bed. A portion of the bank is eroded or undercut. The ESHA and surrounding areas burned in the 2018 Woolsey fire. Some vegetation experienced mortality as a result of the fire while other vegetation is recovering. Approximately 0.50 acres of the existing developed campus, specifically the JCES play yard, the bus barn, and portions of Existing Parking Lot A are within the 100-foot buffer of the ESHA. The Proposed Project would result in demolition of these structures within this buffer area. As part of the Proposed Project, the District would construct a pedestrian path and elevated outdoor learning spaces overlooking the ESHA and within 100 feet, but not closer than 50 feet of the ESHA boundaries. The trails would be accessible to the public during non-school hours (see Figures 3-11a, 3-11b, and 3-11c, *ESHA Restoration Plan* and Figures 3-12a and 3-12b, ESHA *Restoration Areas*).

All parking areas (excluding drive aisles) within the 100-foot ESHA area would be paved with permeable pavement, to allow stormwater runoff to infiltrate into the soil below. Suspended paving systems would be constructed below the permeable paving to treat and slow stormwater runoff before it reaches the ESHA. The system shall be designed to provide treatment and storage for stormwater but also promote healthy tree growth within parking areas.

The District would implement a phased restoration plan for the ESHA within the District's property (see Appendix A to the Specific Plan). The restoration plan would include removing all hardscape within the proposed 100-foot buffer of the ESHA boundary. The District would conduct weed abatement, establish invasive plant controls, broadcast seed and plant native species within the ESHA and the proposed 50-foot buffer area, and implement erosion prevention and bank stability improvements as part of the restoration plan within District property. The restoration plan would be phased to meet the District's development schedule and funding constraints. The restoration and trail enhancements would reestablish the ESHA as viable habitat, provide educational opportunities for the MMHS students within the confines of the campus, and allow the public greater connectivity to the various trails in the community, including the newly reconstructed Equestrian Path Trail.

Opportunities for restoration are present at upstream, middle, and downstream areas of the ESHA as well as developed and undeveloped areas within the proposed 50-foot buffer of the ESHA boundary. During Phase 1 of the Proposed Project, demolition of hardscape within the 100-foot buffer of the downstream area would occur. Restoration activities that would occur within the entire reach include weed abatement, broadcast of native seed and planting of native stock and invasive plant controls. Bank stability improvements and erosion control would occur in the upstream and downstream portions of the ESHA during Phase 1 of the Proposed Project, which would include the proposed pedestrian trail and new drive ails. Demolition of developed areas within the 100-foort buffer of the upstream and middle stream area would occur during Phase 4, as the bus

barn and other existing structures would remain operational until Phase 4 commences. Upon completion of Phase 4, the pedestrian trial would be completed and connect to existing trails on the campus.

Each phase of the Proposed Project would add to the overall reclamation/restoration plan. The restoration effort would focus on supplementing the native vegetation currently found within the ESHA with native seed and stock and utilizing contouring and natural features such as the existing mature native trees to enhance and stabilize the bank. The proposed trail and teaching platforms within the 100-foot buffer would connect the existing Equestrian Trail along the northeastern portion of the campus to the western portion of the campus and provide the community with additional pedestrian access to Morning View Drive. The teaching platforms would be utilized by the MMHS students, as well as community groups. In total, 2.03 acres of the ESHA would be restored, with the removal of approximately 0.50 acres of hardscape and structures.

Table 3-14, *Conceptual Plant Palette for ESHA Restoration Site*, provides a list of plants suitable for consideration for ESHA restoration efforts. The list is consistent with recommendations of the Los Angeles/Santa Monica Mountains Chapter of the California Native Plant Society for landscaping in the Santa Monica Mountains and have been updated to reflect the current scientific and common names changes designated by the Jepson Herbarium. Species that have no assigned common name by the Jepson Herbarium follow the Calflora website.

Table 3-14 Conceptual Plant Palette for ESHA Restoration Site

Plant Species		Restoration Location		
Common Name	Scientific Name	Lower Bank	Upper Bank	Upland
White alder	Alnus rhombifolia		x	
Yerba mansa*	Anemopsis californica	x		
California sagebrush	Artemisia californica			x
Narrow-leaf milkweed*	Asclepias fascicularis		x	x
Coyote brush	Baccharis pilularis			x
California brickellia	Brickellia californica		x	x
Yerba buena	Clinopodium douglasii		x	x
Bush poppy	Dendromecon rigida			x
Salt grass	Distichlis spicata	x	x	
Bush sunflower	Encelia californica		x	x
Scarlet monkeyflower*	Erythranthe cardinalis	x		
Common monkeyflower*	Erythranthe guttata	x		
California coffee berry	Fragula californica		x	x
Gumweed	Grindelia camporum			x
Toyon*	Heteromeles arbutifolia		x	x
California barley	Hordeum brachyantherum ssp. californicum	x		
Spreading Rush	Juncus patens	x		
Giant tickseed*	Leptosyne gigantea		x	x
Pink honeysuckle	Lonicera hispidula		x	
Greene's saxifrage	Micranthes californica	x		
Bird's foot fern	Pellaea mucronata		x	
Bladderpod	Peritoma arborea			x
Western sycamore*	Platanus racemosa		x	
Bracken fern	Pteridium aquilinum var. pubescens	x	x	x

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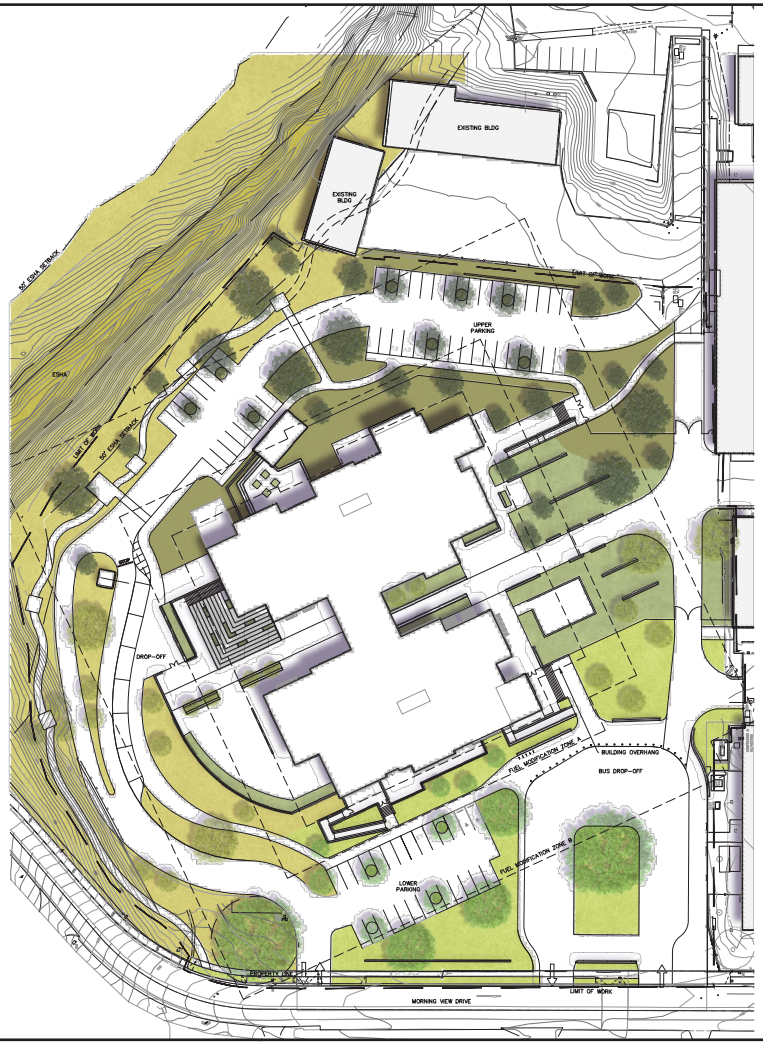
Table 3-14 Conceptual Plant Palette for ESHA Restoration Site

Coast live oak*	Quercus agrifolia		x	x
Golden currant	Ribes aureum		x	x
Fuchsia-flowering gooseberry	Ribes speciosum			x
California rose	Rosa californica	x	x	
Arroyo willow	Salix lasiolepis	x	x	
Purple sage	Salvia leucophylla			x
Black sage	Salvia mellifera			x
California hummingbird sage*	Salvia spathacea		x	x
Blue elderberry	Sambucus nigra subsp. caerulea		x	x
California figwort	Scrophularia californica		x	x
Nightshade*	Solanum xanti		x	x
Southern hedge nettle	Stachys bullata		x	x
Creeping snowberry	Symphoricarpos mollis	x	x	
California bay	Umbellularia californica		x	x
Giant chain fern	Woodwardia fimbriata	x		

Source: CNPS 1996.
*Fire Resistant

Figure 3-10 Proposed Phase I Landscaping Plan



LEGEND

SYMBOL	ZONE	DESCRIPTION
	COMMUNITY GATEWAY	PARK–LIKE MIX OF NATIVE AND ORNAMENTAL: LARGE EXISTING AND NEW CANOPY TREES WITH MEDIUM/ACCENT TREES AT PEDESTRIAN GATHERING SPOTS AND ENTRIES; PARK–LIKE ARRANGEMENTS OF LARGE FOLIAGE AND FLOWERING SHRUBS; GROUNDCOVERS AND PERENNIAL ACCENTS. PALETTE RELATES TO STORMWATER COLLECTION AND TERRACING OF ENTRY WALLS. REFLECTS STREETSCAPE, RESIDENTIAL CHARACTER OF NEIGHBORHOOD.
	ACADEMIC TERRACES	COURTYARD MIX OF ORNAMENTAL AND NATIVE IN GROUND AND IN RAISED PLANTERS: LOW GROWING GROUNDCOVERS GRASSES, AND SUCCULENTS WITH ACCENT SHRUBS AND SMALL TREES. CONTAINERS AND RAISED PLANTERS WITH MORE FRAGILE PERENNIALS AND SUCCULENTS. LOW DENSITY PLANTING TO COMPLY WITH FUEL MOD REQUIREMENTS. PALETTE IS LOW WATER AND LOW MAINTENANCE WITH SOME SEASONAL ACCENTS; MIX OF SUN AND SHADE EXPOSURES.
	HILLSIDE	NATIVE PALETTE. MIX OF LARGE AND SMALL CANOPY TREES SITED TO SHADE AND SCREEN PARKING AND SERVICE AREAS; LOW–GROWING UNDERSTORY WITH WIDELY SPACED SHRUB GROUPINGS AND TREES ABLE TO GROW ON SLOPES, MIX OF GRASSES AND SHRUBS.
	LOW COASTAL	NATIVE PALETTE. MIX OF LARGE AND SMALL CANOPY TREES SITED TO FRAME VIEWS TO THE WEST; LOW GROUND COVERS, GRASSES, FLOWERING SHRUBS AND PERENNIALS TAKE ADVANTAGE OF SOUTH AND WEST EXPOSURE.

NO SCALE

Source: NAC Architecture, 2021

3. Project Description

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Figure 3-11a ESHA Restoration Plan - Downstream

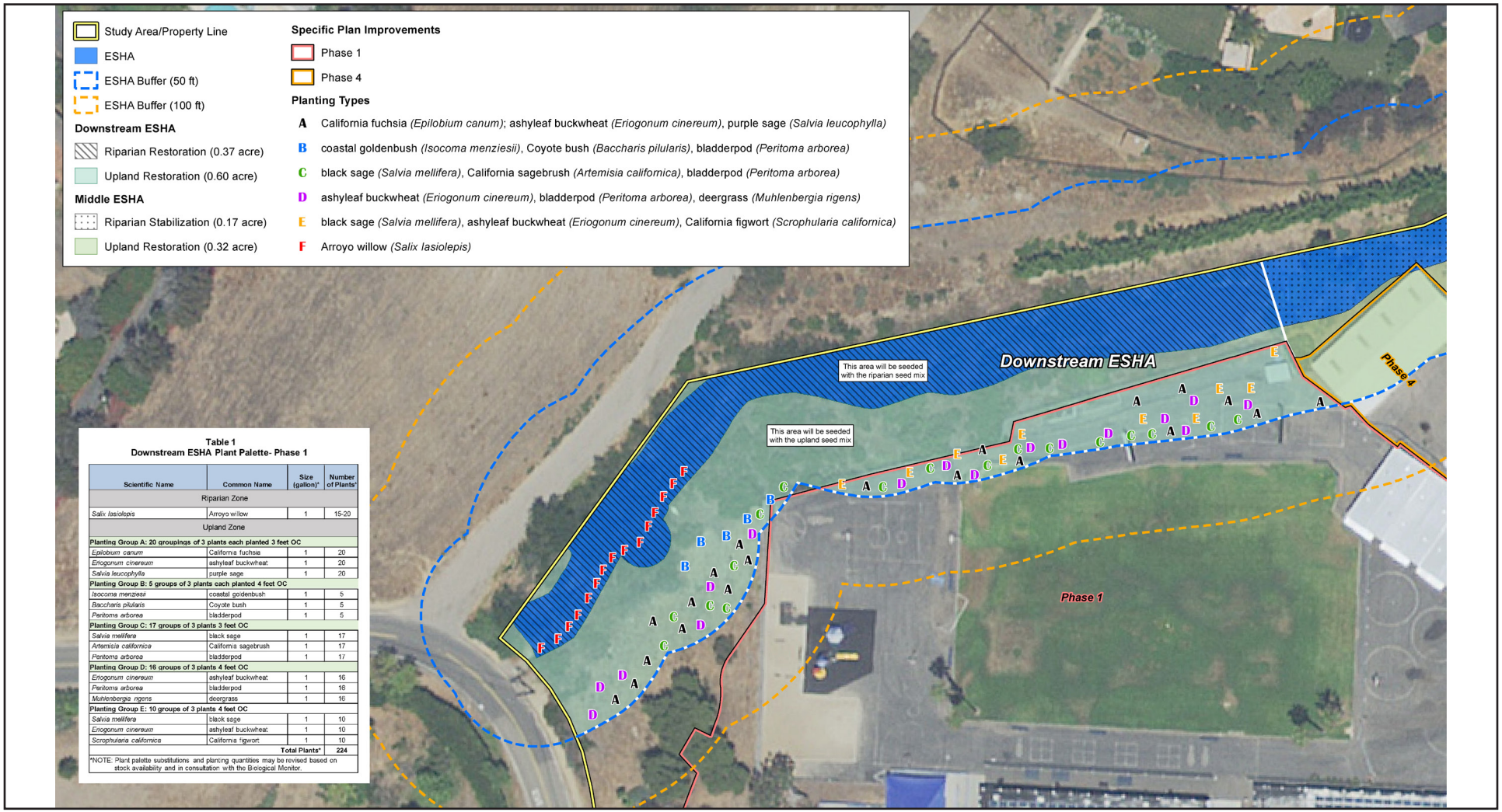

Table 1
Downstream ESHA Plant Palette- Phase 1

Scientific Name	Common Name	Size (gallon)*	Number of Plants*
Riparian Zone			
Salix lasiolepis	Arroyo willow	1	15-20
Upland Zone			
Planting Group A: 20 groupings of 3 plants each planted 3 feet OC			
Epilobium canum	California fuchsia	1	20
Eriogonum cinereum	ashyleaf buckwheat	1	20
Salvia leucophylla	purple sage	1	20
Planting Group B: 5 groups of 3 plants each planted 4 feet OC			
Isocoma menziesii	coastal goldenbush	1	5
Baccharis pilularis	Coyote bush	1	5
Peritoma arborea	bladderpod	1	5
Planting Group C: 17 groups of 3 plants 3 feet OC			
Salvia mellifera	black sage	1	17
Artemisia californica	California sagebrush	1	17
Peritoma arborea	bladderpod	1	17
Planting Group D: 16 groups of 3 plants 4 feet OC			
Eriogonum cinereum	ashyleaf buckwheat	1	16
Peritoma arborea	bladderpod	1	16
Muhlenbergia rigens	deergrass	1	16
Planting Group E: 10 groups of 3 plants 4 feet OC			
Salvia mellifera	black sage	1	10
Eriogonum cinereum	ashyleaf buckwheat	1	10
Scrophularia californica	California figwort	1	10
	Total Plants*		**224**

*NOTE. Plant palette substitutions and planting quantities may be revised based on stock availability and in consultation with the Biological Monitor.

0 80
Scale (Feet)

Source: Hexagon Geosystems, 2021

3. Project Description

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Figure 3-11b ESHA Restoration Plan - Middle

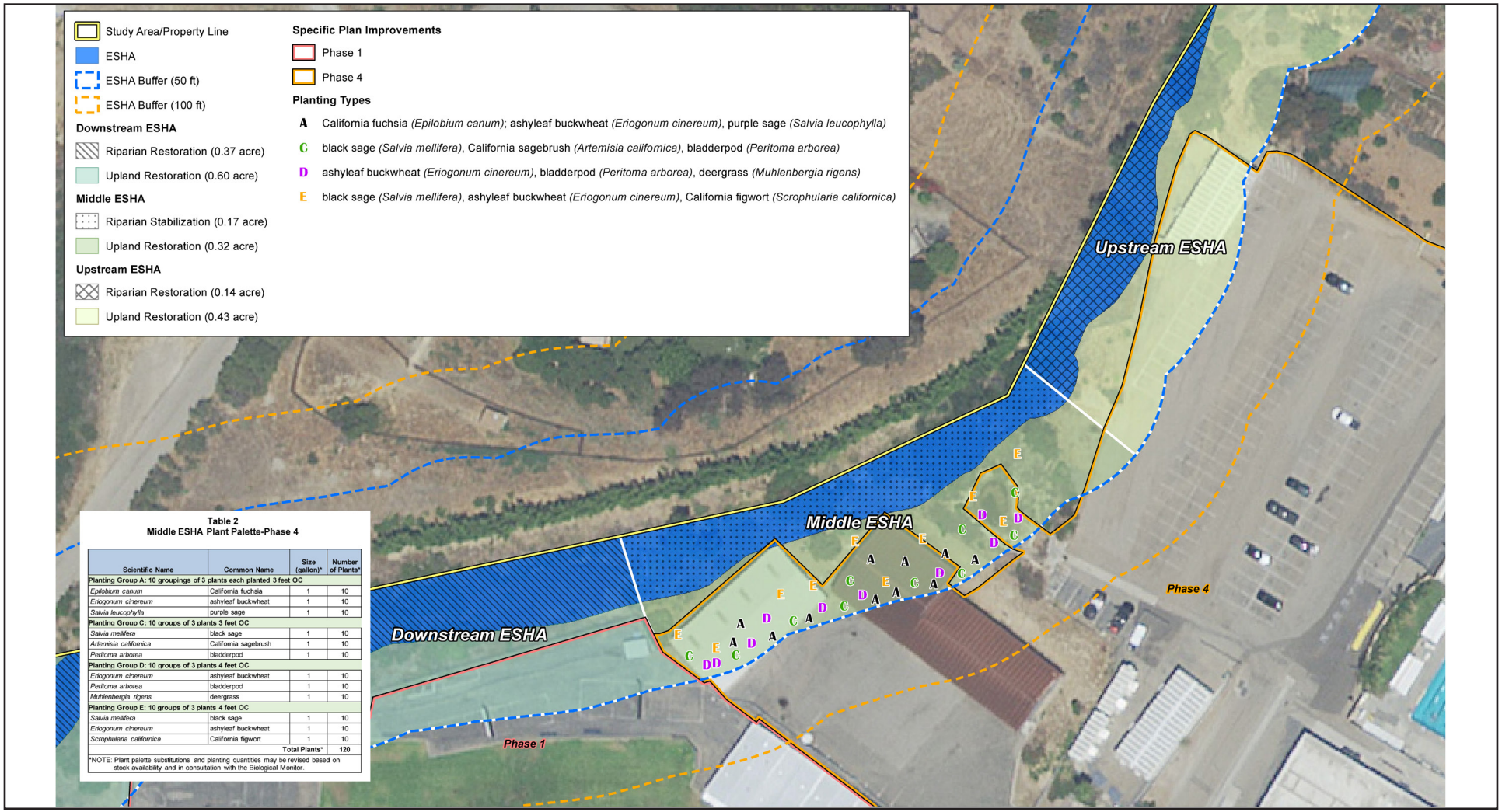

Table 2
Middle ESHA Plant Palette-Phase 4

Scientific Name	Common Name	Size (gallon)*	Number of Plants*
Planting Group A: 10 groupings of 3 plants each planted 3 feet OC			
Epilobium canum	California fuchsia	1	10
Eriogonum cinereum	ashyleaf buckwheat	1	10
Salvia leucophylla	purple sage	1	10
Planting Group C: 10 groups of 3 plants 3 feet OC			
Salvia mellifera	black sage	1	10
Artemisia californica	California sagebrush	1	10
Peritoma arborea	bladderpod	1	10
Planting Group D: 10 groups of 3 plants 4 feet OC			
Eriogonum cinereum	ashyleaf buckwheat	1	10
Peritoma arborea	bladderpod	1	10
Muhlenbergia rigens	deergrass	1	10
Planting Group E: 10 groups of 3 plants 4 feet OC			
Salvia mellifera	black sage	1	10
Eriogonum cinereum	ashyleaf buckwheat	1	10
Scrophularia californica	California figwort	1	10
	Total Plants*		**120**

*NOTE: Plant palette substitutions and planting quantities may be revised based on stock availability and in consultation with the Biological Monitor.

0 80
Scale (Feet)

Source: Hexagon Geosystems, 2021

3. Project Description

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Figure 3-11c ESHA Restoration Plan - Upstream

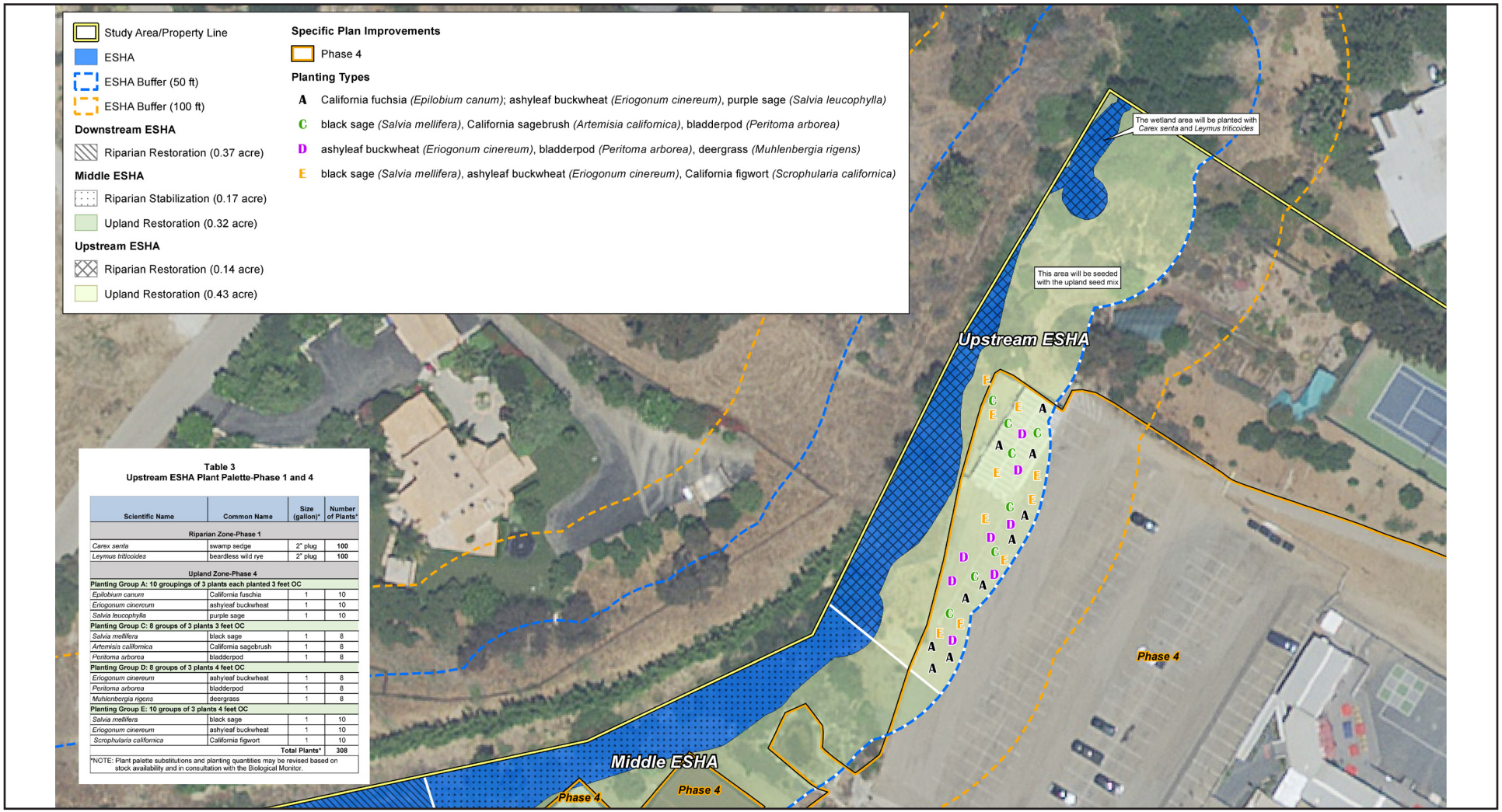

Table 3
Upstream ESHA Plant Palette-Phase 1 and 4

Scientific Name	Common Name	Size (gallon)*	Number of Plants*
Riparian Zone-Phase 1			
Carex senta	swamp sedge	2" plug	100
Leymus triticoides	beardless wild rye	2" plug	100
Upland Zone-Phase 4			
Planting Group A: 10 groupings of 3 plants each planted 3 feet OC			
Epilobium canum	California fuschia	1	10
Eriogonum cinereum	ashyleaf buckwheat	1	10
Salvia leucophylla	purple sage	1	10
Planting Group C: 8 groups of 3 plants 3 feet OC			
Salvia mellifera	black sage	1	8
Artemisia californica	California sagebrush	1	8
Peritoma arborea	bladderpod	1	8
Planting Group D: 8 groups of 3 plants 4 feet OC			
Eriogonum cinereum	ashyleaf buckwheat	1	8
Peritoma arborea	bladderpod	1	8
Muhlenbergia rigens	deergrass	1	8
Planting Group E: 10 groups of 3 plants 4 feet OC			
Salvia mellifera	black sage	1	10
Eriogonum cinereum	ashyleaf buckwheat	1	10
Scrophularia californica	California figwort	1	10
	Total Plants*		**308**

*NOTE: Plant palette substitutions and planting quantities may be revised based on stock availability and in consultation with the Biological Monitor.

0 80
Scale (Feet)

Source: Hexagon Geosystems, 2021

3. Project Description

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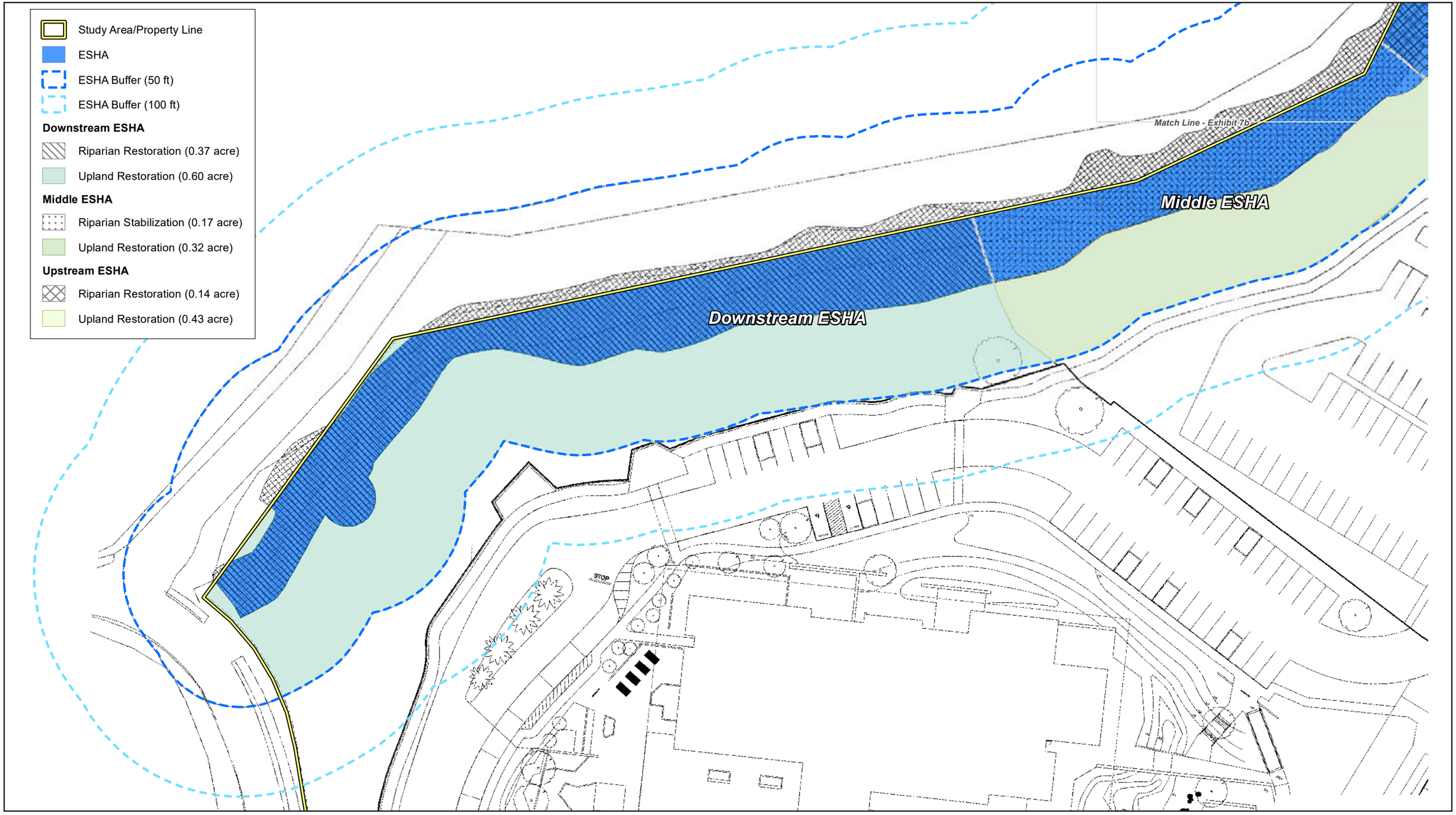
Figure 3-12a ESHA Restoration Areas



Source: PSOMAS, 2021

3. Project Description

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Figure 3-12b ESHA Restoration Areas

Source: PSOMAS, 2021

3. Project Description

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3.5 PROJECT PHASING AND CONSTRUCTION

3.5.1 Construction Phasing

The Proposed Project would be constructed in four phases, with construction activities anticipated to begin in fall 2022 and completed in summer 2031. The four phased areas are shown in Figure 3-13, *Proposed Project Phasing*. Within each of the four phases, the following activities would occur—grading and excavation, trenching for site utilities, demolition and construction of the buildings, paving, and finishing. Malibu Municipal Code § 4.2.04(G) limits the hours of construction to 7:00 am to 7:00 pm on weekdays and 8:00 am to 5:00 pm on Saturday; construction is not allowed on Sundays or holidays.

It is anticipated that students would occupy existing buildings on the MMHS campus during construction activities. With the completion of Phase 1, the majority of the Proposed Project's classrooms would be constructed. Therefore, it is not anticipated that portable classrooms, beyond those currently on campus, would be used to house students or staff during construction. Table 3-15, *Proposed Project Phasing*, provides details for each construction phase, including timing, amount of demolition, new construction, and infrastructure improvements for each phase.

3.5.1.1 PHASE 1

Phase 1 would consist of demolition of all existing former JCES campus buildings and portables P6 and P7 and construction of Building C (see Figure 3-9, *Building C Proposed Elevation*), Parking Lot C, Parking D, and the drop-off/pick-up area. Phase 1 is anticipated to begin in fall 2022 and be completed by summer 2024.

3.5.1.2 PHASE 2

Phase 2 would consist of construction of Building D and the Middle School Quad. Phase 2 is anticipated to begin in fall 2024 and be completed by fall 2026. A new bond is required before subsequent phases can move forward.

3.5.1.3 PHASE 3

Phase 3 would consist of demolition of MMHS Buildings F and I, the existing field house, and the portables adjacent to the existing pool, and construction of Buildings J, L, and M and Parking Lots E and F. Phase 3 is anticipated to begin in fall 2028 and be completed by fall 2030.

3.5.1.4 PHASE 4

Phase 4 would involve the demolition of MMHS Buildings K, J, and J1; the pool and pool building; the demolition and reconstruction of the bus barn; and the demolition and/or relocation of the Boys & Girls Club and construction of new Buildings H and I. This phase would also require the demolition of the existing MMHS Building H. Phase 4 is anticipated to begin in spring 2030 and be completed by summer 2031.

3. Project Description

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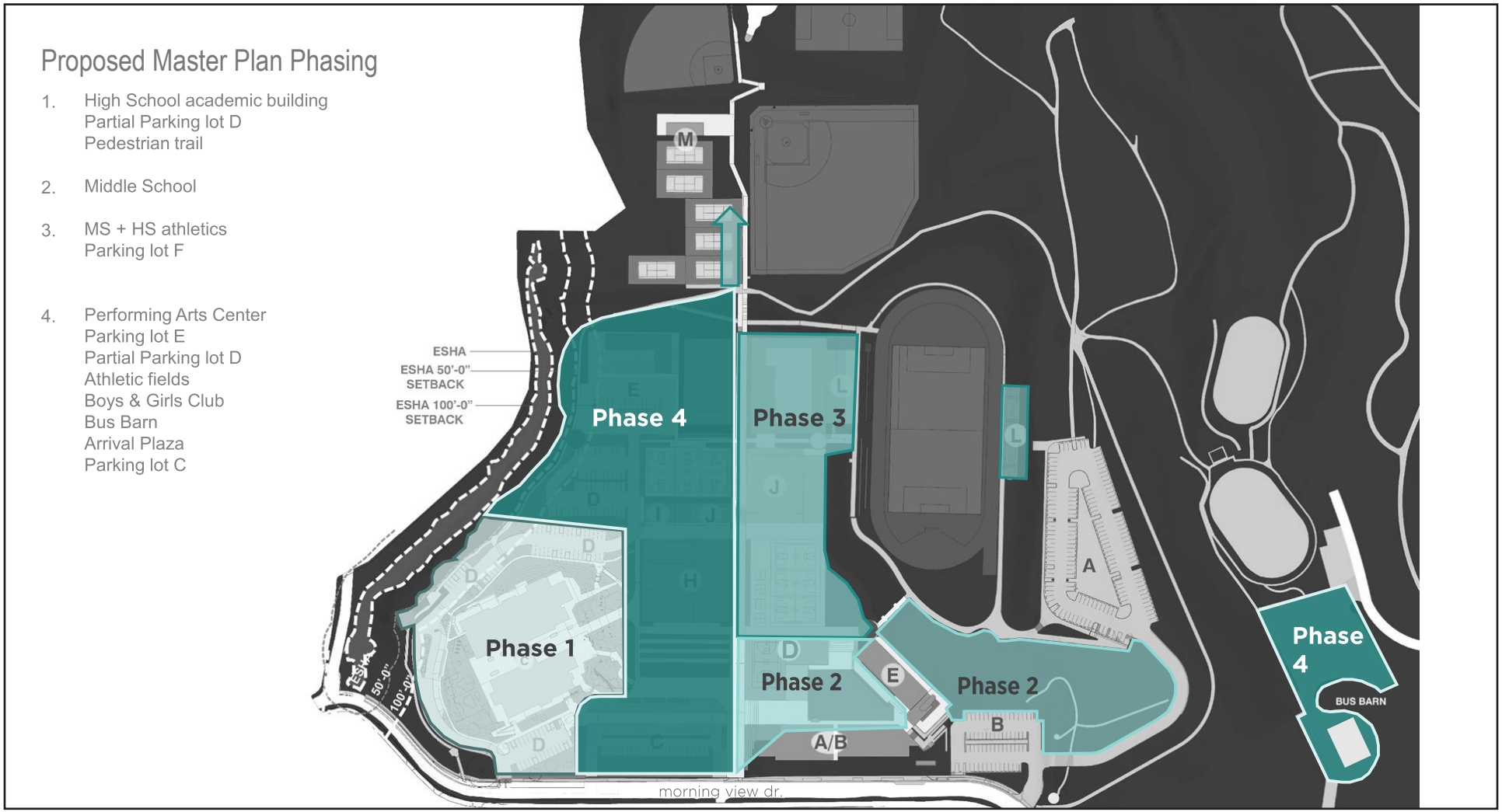
Figure 3-13 Proposed Project Phasing



Source: LPA, 2021

3. Project Description

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Table 3-15 Proposed Project Phasing

Phase	Demolition	Demolition Square Footage	New Construction	New Building Square Footage	Infrastructure Improvement	Timeline
1	JCES Buildings A, B, C, D, E, F, G, H, I, P6–P7	36,544	Building C, Parking Lot D Drop-off/Pick-up, Parking Lot C	68,019	• DMA A • DMA B • Septic 1	Fall 2022 – Fall 2024
2	N/A	N/A	Building D, Middle School Quad	22,376	• DMA C • Septic 2	Fall 2024 – Fall 2026
3	MMHS Buildings F, I, Field House, and Portables	27,571	Buildings J, L, and M, Parking Lot E, Parking Lot F, Bus Barn	58,012	• DMA D • Septic 3 • Septic 5	Fall 2026 – Fall 2028
4	MMHS Building K, J, J1, Pool, Pool Building, Boys & Girls Club (demolished or relocated), JCES Portables P1-P5, Restroom Portable, Bus Barn, M&O Warehouse	69,581	Building H and I, Boys & Girls Club (relocated)	35,188	• DMA E • DMA F • Septic 4	Fall 2028 – Fall 2030
	MMHS Building H	14,478	N/A	N/A	• DMA G	Spring 2030 – Spring 2031

SMMUSD 2020.

3.5.2 Grading

Previous construction and grading at the Project Site have created a series of near-level building pads for existing structures and paved parking lots. The majority of the Project Site, including all areas with current development, is situated on slopes between 0 and 20 percent, at a minimum of 80 feet above mean sea level (amsl). Around the perimeter of the Project Site, surrounding the football field, and between building pads, slopes increase to between 40 to 100 percent, reaching up to 170 feet amsl. For the most part, proposed new construction would take place on the flat, previously developed areas of campus, and existing slope conditions would remain. Because of the topography of the site, and the need to create large terraces for student safety and access, and the overall size of individual school buildings which are larger than most homes require the ability to cut/fill more than 1,000 cubic yards. Table 3-16, *Proposed Project Cut/Fill by Phase*, details the total amount of soil to be graded for Phase 1 and estimates the cut and fill for subsequent phases.

To minimize grading, each building would have its own site-specific geotechnical report that determines individual needs. Because of the topography of the site, and the need to create large terraces, some of the buildings (Building C for example) would serve as a retaining wall and may be over 12 feet in height at certain locations.

Table 3-16 Proposed Project Cut/Fill by Phase

Phase	Cut (cy)	Fill (cy)	Project Phase Total (cy)
1	35,190	10,530	24,660 cut
2	5,175	-	5,175 cut
3	25,300	14,000	11,300 cut
4	10,000	33,350	23,350 fill
Total	75,665	57,880	17,785 cut

Source: LPA 2019

3.5.3 Construction Traffic

Construction of the Proposed Project would temporarily generate additional traffic on the existing area roadway network. These vehicle trips would include construction workers traveling to the Project Site as well as delivery trips associated with construction equipment and materials. Delivery of construction materials to the Project Site would require several oversized vehicles that may travel at slower speeds than existing traffic. Construction traffic would be scheduled in concert with the operations of the school, ensuring that trucks are not moving in or out during drop-off or pick-up times. The majority of the school traffic exists to the south of the traffic light at the intersection of Morning View and PCH, and the contractor would ensure that operations do not create any conflict in this area during peak times. Additionally, traffic would be directed back to PCH via Morning View to keep construction traffic out of the residential areas. No deliveries would be allowed through the fire access gate on the service road. Once materials are delivered to the campus, all construction activities would occur on-site within the existing boundaries of the school campus and would not disrupt off-site traffic flows. Additionally, construction workers would park in the designated staging area to provide adequate parking for all employees and visitors to the campus throughout the duration of construction activities of the Proposed Project. Signage and/or workers conducting traffic would be present to direct pedestrians and vehicles during construction. Per standard construction procedures, the construction contractor would prepare and implement a traffic control plan to ensure that public safety and emergency access are maintained during the construction phase. Should any temporary fencing be needed during construction, it would meet the requirements of the LCP and Land Use Plan (LUP) and be wildlife permeable.

3.5.4 Construction Staging

The limits of construction staging for each phase of the Proposed Project would be minimal and confined to each phase area. For Phase 1, a laydown yard would be within fenced limits and would include a lay down area, spoils stock piling area, and storage area. Additionally, a designated area for stockpiling activities would be near the southwest portion of the Phase 1 work area. This would serve as a meeting point for hauling operations and coordination with trucking entry, turn around, and exit.

3.6 INTENDED USES OF THIS EIR

As required by the CEQA Guidelines, this section provides, to the extent the information is known to the SMMUSD, a list of the agencies that are expected to use the environmental analysis of the Proposed Project

in their decision-making. This section also lists the permits and other approvals required to implement the Proposed Project.

3.6.1 Lead Agency Approval

SMMUSD is the lead agency under CEQA and is carrying out the Proposed Project. In order to approve the Proposed Project, the SMMUSD Board of Education must first certify the Final EIR (FEIR). The Board will consider the information in the EIR when making its decision to approve or deny the Proposed Project, or in directing modifications to the Proposed Project in response to the EIR's findings and mitigation measures. The EIR is intended to disclose to the public the Proposed Project's details, analyses of the Proposed Project's potential environment impacts, and identification of feasible mitigation or alternatives that would lessen or reduce significant impacts to less than significant levels.

3.6.2 Specific Plan and Phase 1 Approvals

The Specific Plan is proposed to regulate the Proposed Project. Phase 1 has been fully designed. Adopting the Specific Plan and deciding to carry out Phase 1 are discretionary, legislative, decisions that must be made by the City of Malibu's City Council. Development standards established for the Specific Plan include the building specifications such as heights, setbacks, design standards for signs, and landscaping. To meet the standards established by the District's Education Specifications, the California Interscholastic Federation, the National Federation of State High School Association, Buildings D, C, H, and J would exceed the LCP's and City's 28-foot height requirements. Additionally, the Science labs in Building C would require fume hoods that would exceed the height restrictions for rooftop-mounted equipment. Development under the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's Local Implementation Program (LIP) except for those listed under Table 3-17. The table outlines the Proposed Project specifications along with the current City's LIP and Municipal Code and reasoning for exceeding current City regulations.

The proposed deviations from the code are necessary to complete the District's educational obligations and needs while meeting the community's expressed desires through the Campus Plan Process. It would ensure the provision of a first-class campus that would be flexible enough to meet the challenges and changes of 21st century education by providing adequate classroom space, theater, gyms, and signage/way finding features.

3.6.2.1 MALIBU LOCAL COASTAL PROGRAM

The city of Malibu is in the California coastal zone, and all developments are subject to the regulations of the City's LCP. It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve specific plans and CDPs at the local level. The LCP includes a LUP to regulate land use and a LIP for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the Coastal Zone may not begin until a coastal development permit has been issued by either the Commission or a local government that has a Commission-certified local coastal program.

3. Project Description

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Table 3-17 Proposed Project Development Standards

	Proposed Project Specification		Current LIP/ and Municipal Code (MC) Requirements	Reason/Notes
Development under the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP with the exception of the following:				
Maximum Building Height[1]	Building J: Gym/PE	45 feet	§ 3.9.A1a of LIP and § 17.40.110 A.1.a. of MC: Structures shall not exceed a maximum height of 18 feet above natural or finished grade, except for chimneys, rooftop antenna, and light standards. The maximum height of the structure may be increased up to 28 feet for a flat or pitched roof if approved through a site plan review pursuant to § 13.27 of the Malibu LIP.	Gymnasiums must meet NFHS minimum interior height requirement of 23 feet clear from floor to ceiling for CIF Volleyball, the Specific Plan plans for 25 feet for adequate tolerance in design and construction and an additional 10 feet for long span structure and 5 feet for roof slope and parapet.
	Building H: Theater/ Performing Arts	45 feet		High School Performing Arts facilities require a vertical stage opening of 25 feet (to the bottom of the proscenium). In addition, the long span structure and tension lighting grid ceiling system would add 15 feet above the stage opening plus 5 feet for roof slope and parapet. This equates to a total height of 45 feet, allowing for the school to produce the types of theatrical performances expected in a high school theater curriculum.
	Building D: Middle School Gym/MPR	36 feet		Gymnasiums must meet the National Federation of State High School Association, (NFHS) minimum interior height requirement of 23 feet clear from floor to ceiling for competitive Volleyball, the Specific Plan plans for 24 feet for adequate tolerance in design and construction.
	Building C: High School Building	36 feet (Fume Hood 41 feet)		Building C north wing, second floor contains high bay/ high volume spaces to house educational uses. These high bay spaces are required to provide the students with adequate functioning spaces conducive to 21st Century learning as defined in the Campus Plan Education Specifications. The Student Union is programmed with a central space of 4,000 square foot space. The interactive, collaborative nature of this space requires an appropriate high-volume ceiling. A high school Library, based on the District's Educational specifications, require a variety of spaces within the Library, including a large 3,000 square foot area that can double as Staff Development space.
Rooftop Equipment Height	Building C: High School Building	Science Labs require fume hoods with	§ 3.9A.1b of LIP and § 17.40.110 A.1.b. of MC:	Required rooftop equipment would exceed the 2 foot maximum height above the roof plane for exhaust hoods over Science Labs, as required by the American National

Table 3-17 Proposed Project Development Standards

	Proposed Project Specification		Current LIP/ and Municipal Code (MC) Requirements	Reason/Notes
Development under the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP with the exception of the following:				
		exhaust stacks placed at a minimum of 10 feet above the roof surface.	Roof-mounted mechanical equipment shall be integrated into the roof design, screened, and may project no more than two feet higher than the structure roof height (screens included) if approved through a site plan review pursuant to § 13.27 of the Malibu LIP.	Standard for Laboratory Ventilation ANSI Z9.5 as well as the National Fire Protection Association Standard NFPA 45, Chapter 7, § 7.2.
	Building C: High School Building	Parapets and or Guardrails that project up to 42 inches in height above the surface of the roof.		Roof top would be occupied by students to support outdoor learning, including visual observation to ESHA. With student access to the roof deck, higher parapets or Guards are required to be 42-inch minimum height per California Building Code, Part 2, Volume 1, Chapter 10, § 1015.
Lighting	Nighttime pool lighting would be installed.		§ 3.9.A1d of the LIP and § 17.40.110 A.1.d. of MC: Sports field lighting shall be limited to the main sports field at Malibu High School and subject to the standards of LIP §§ 4.6.2 and 6.5.G.	Lighting would be installed to meet the requirements of a Class II facility as identified by the Illuminating Engineering Society of North America (IESNA) (10th ed.), where lighting should be a minimum of 30 foot-candles over the pool and 20 foot-candles over the deck, as measured at the water level. Consistent with IESNA recommendations, lighting would also be provided within the pool basin, with the recommended luminance of 15 candelas per square foot (161 candelas per square meter). By meeting these standards, the pool lighting would also meet the requirements of California Building Code § 3115B.1.
Signage	Two new 15'6" x 7'6" electronic marquee signs, with a 10'x4' LED Display Screen. One sign each at the Middle and High schools.		§ 3.15.3.J of the LIP and § 17.52.040.J.of the MC: Except for those signs allowed under the provisions of § 3.15.4 (E) of the Malibu LIP, "Special permits," the following signs are prohibited: Automatic changing signs or electronic message center signs, except for public service, time, and temperature.	Marquee signs for High School and Middle School are required by the District for proper communications with the Students/ Community. Marquee signs serve a multitude of communication needs including emergency and safety communications.

Table 3-17 Proposed Project Development Standards

	Proposed Project Specification	Current LIP/ and Municipal Code (MC) Requirements	Reason/Notes
Development under the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP with the exception of the following:			
Setback	The Proposed Project would remove existing parking and drive aisles and maintain a 50-foot buffer from ESHA with the exception of a meandering deconstructed granite walking path adjacent to the ESHA for instructional stations and parking. All new buildings would be set back 100 feet.	§ 4.6 of the LIP: New development adjacent to the riparian habitats shall provide native vegetation buffer areas of no less than100 feet to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the habitat they are designed to protect. Vegetation removal, vegetation thinning, or planting of non-native or invasive vegetation shall not be permitted within buffers except as provided in § 4.6.1 (E) or (F) of the Malibu LIP.	The current District development, including the vacated Juan Cabrillo ES, District bus barn facilities, parking lots, drive aisles, and fencing/ site structures, extend up to the edge of the ESHA and in some instances into the ESHA, with no setback.
Maximum Grading Quantity	The Proposed Project, as shown in Table 3-16, would exceed the grading limitations.	§ 8.3.B. of the LIP and § 17.40.110 A.4.a of MC: Maximum Quantity of Grading. Notwithstanding any other provisions of the Malibu LIP, grading per lot of residential development, per acre of commercial development, or per acre of institutional development (total cut and fill) is limited to 1,000 cubic yards (per items a, b, c, and d).	Because of the topography of the site and the need to create large terraces for student access as well as the overall size of individual school buildings, which are larger than most homes, the Proposed Project needs to cut/fill more than 1,000 cubic yards.
Maximum Height of Cuts and Fills	Certain buildings may serve as a retaining wall.	§ 8.3.C of the LIP § 17.40.110 A.4.b of MC: Maximum Height of Cuts and Fills with Retaining Walls. 6 feet in height for any one wall, or 12 feet for any combination of walls, where a	Each building would have its own site-specific geotechnical report that determines individual needs. Because of the topography of the site and the need to create large terraces, some of the buildings (Bldg. C for example) would serve as retaining walls and may be over 12 feet tall at certain locations.

3. Project Description

Table 3-17 Proposed Project Development Standards

	Proposed Project Specification	Current LIP/ and Municipal Code (MC) Requirements	Reason/Notes
Development under the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP with the exception of the following:			
		minimum 3-foot separation exists between walls, except single cuts up to 12 feet in height which are an integral part of the structure are permitted. Retaining walls shall be designed with smooth, continuous lines that conform to the topography.	

Source: SMMUSD 2021; Malibu 2002.
Notes:
[1] All other buildings would have a maximum height of 28 feet.

3.6.3 Other Required Permits and Approval

A public agency other than the lead agency that has discretionary approval power over a part of a project is known as a "responsible agency," defined by CEQA Guidelines § 15381. The responsible agencies and their corresponding approvals for the Proposed Project may include:

- Regional Agencies
  - Los Angeles Regional Water Quality Control Board (RWQCB) (Issuance of waste discharge requirements)
  - California Coastal Commission (CCC)
- County of Los Angeles
  - Fire Department (Approval of Site Plan for Emergency Access)
  - Los Angeles Department of Public Works (Water District 29)
- City of Malibu
  - Public Works/Engineering (for grading permit)
  - Planning Commission (for Coastal Development Permit, Conditional Use Permit, Variances, Site Reviews)
  - City Council (For Proposed Project and Specific Plan approval)

3.6.3.1 OTHER REVIEWING AGENCY ACTIONS AND APPROVALS

Other agencies include agencies that do not have discretionary powers, but which may review the Draft EIR for adequacy and accuracy. Potential other agencies may include:

- Federal
  - U.S. Fish and Wildlife Services (USFWS)
- State of California
  - Division of State Architect (Approval of Construction Drawings)
  - Office of Historic Preservation (OHP)
  - Department of Transportation (Caltrans)
  - Natural Resources Agency
  - California Department of Fish and Wildlife (CDFW)
  - Department of Conservation (DOC)
  - Department of Parks and Recreation (DPR)
  - Native American Heritage Commission (NAHC)
  - California Highway Patrol (CHP)
- Regional Agencies
  - Los Angeles County Sherriff's Department (LACSD)
  - Los Angeles Forestry Division

  - Southern California Association of Governments (SCAG)
- City of Malibu (Approval of Specific Plan and CDPs)
  - Environmental Community Development

3.7 REFERENCES

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4. Environmental Setting

4.1 INTRODUCTION

This section provides a "description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published ... from both a local and a regional perspective," pursuant to provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines, section 15125(a). The environmental setting provides the baseline physical conditions from which the lead agency would determine the significance of environmental impacts resulting from the Malibu Middle and High School Campus Specific Plan Project (Proposed Project). In addition, subsections of Chapter 5, *Environmental Analysis*, provide a more detailed description of the local environmental setting for specific topical areas.

4.2 REGIONAL ENVIRONMENTAL SETTING

4.2.1 Regional Location

The city of Malibu is in the western portion of Los Angeles County, approximately 30 miles west of downtown Los Angeles, and borders Ventura County on its western edge. The city is bordered by the Santa Monica Mountains to the north and Topanga Canyon to the east. The Pacific Ocean abuts the city's southern border (see Figure 3-1, *Regional Location*).

4.2.2 Regional Planning Considerations

4.2.2.1 AIR QUALITY

The city is in the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (South Coast AQMD). The SoCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as criteria air pollutants and are carbon monoxide, volatile organic compounds (VOC), nitrogen oxides (NO_X), sulfur dioxide, coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead. VOC and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants, such as ozone (O_3), through chemical and photochemical reactions in the atmosphere. Air basins are classified as attainment/nonattainment areas for particular pollutants depending on whether they meet ambient air quality standards (AAQS) for that pollutant. The SoCAB is designated nonattainment for O_3, $PM_{2.5}$, PM_{10}, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for nitrogen dioxide (NO_2) under the California AAQS.

The Proposed Project's consistency with the applicable AAQS is discussed in Section 5.2, *Air Quality*.

4. Environmental Setting

4.2.2.2 GREENHOUSE GAS EMISSIONS

Current State of California guidance and goals for reductions in greenhouse gas (GHG) emissions are generally embodied in Executive Order S-03-05; Executive Order B-30-15; Assembly Bill 32 (AB 32), the Global Warming Solutions Act (2008); and Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act.

Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction targets for the State of California:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

AB 32 was passed by the state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the emissions reduction targets established in Executive Order S-3-05. Based on the GHG emissions inventory conducted for its 2008 Scoping Plan, the California Air Resources Board (CARB) approved a 2020 emissions limit of 427 million metric tons of carbon dioxide-equivalent emissions ($MMTCO_2e$) for the state (CARB 2008). CARB is required to update the Scoping Plan every five years. In 2015, Governor Brown signed Executive Order B-30-15 into law, establishing a GHG reduction target for year 2030, which was later codified under SB 32 (2016). The 2016-2017 update to the Scoping Plan addresses the 2030 target of 40-percent below 1990 levels.

In 2008, SB 375 was adopted to connect GHG emissions reductions targets for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled and vehicle trips. The Southern California Association of Governments' (SCAG) targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13-percent per capita reduction from 2005 GHG emission levels by 2035. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO). In addition, SB 375 requires CARB to update the targets for the MPOs every eight years. The targets as set by CARB in 2010 for the SCAG region are an 8-percent per capita reduction from 2005 GHG emission levels by 2020 and a 13-percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The Draft 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) projects that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. Additionally, it is also projected that implementation of the plan would reduce vehicle miles traveled (VMT) per capita for year 2045 by 4.1 percent compared to baseline condition for the year (SCAG 2019).

The Proposed Project's consistency with CARB's Scoping Plan is discussed in Section 5.7, *Greenhouse Gas Emissions*.

SCAG Regional Transportation Plan/Sustainable Communities Strategy

SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized MPO for this region, which encompasses over

38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with South Coast AQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives, as discussed below.

Regional Transportation Plan/Sustainable Communities Strategy

The RTP/SCS is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods. On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt Connect SoCal (2020–2045 RTP/SCS), and the addendum to the Connect SoCal Program Environmental Impact Report (EIR). Connect SoCal is a long-range visioning plan that builds on and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The 2020–2045 RTP/SCS includes a "Core Vision" that centers on maintaining and better managing the transportation network for moving people and goods; expanding mobility choices by locating housing, jobs, and transit closer together; and increasing investments in transit and complete streets (SCAG 2020).

The Proposed Project's consistency with the applicable Connect SoCal policies is analyzed in detail in Section 5.10, *Land Use and Planning*.

4.3 LOCAL ENVIRONMENTAL SETTING

4.3.1 Location and Land Use

4.3.1.1 PROJECT LOCATION

The Santa Monica-Malibu Unified School District (SMMUSD or District) property is at 30215 Morning View Drive in the city of Malibu, Los Angeles County, California (see Figure 3-1, *Regional Location*). The SMMUSD property consists of approximately 87 acres over nine parcels that includes the existing Malibu Equestrian Park in the eastern portion of the property, the existing Malibu Middle and High School (MMHS) campus in the center of the property, and the former Juan Cabrillo Elementary School (JCES) campus in the western portion of the property. The Project Site is situated on three of nine parcels: Assessor's Parcel Numbers (APN) 4469-017-900 (40.06 acres), 4469-018-900 (9.4 acres), and 4459-018-904 (2.57 acres). The total acreage of the Project Site is 52.03 acres. The majority of the Proposed Project would be developed within the existing MMHS campus and the former JCES campus, with one component of the Proposed Project located within the Malibu Equestrian Park. The Project Site is set amid rolling hills, and its buildings and athletic fields are terraced into the hillside. The Project Site is within the City of Malibu Institutional (I) District Zone that authorizes public education institutions with a conditional use permit.

The Project Site is approximately 0.25 miles northeast of both the Pacific Coast Highway (PCH) and Zuma Beach, and bounded by Merritt Drive to the east, Via Cabrillo Street to the west, and Morning View Drive to the south (see Figure 3-2, *Local Vicinity*). Single-family homes border the Project Site to the north (see Figure 3-3, *Aerial Photograph*).

4. Environmental Setting

4.3.1.2 EXISTING LAND USE

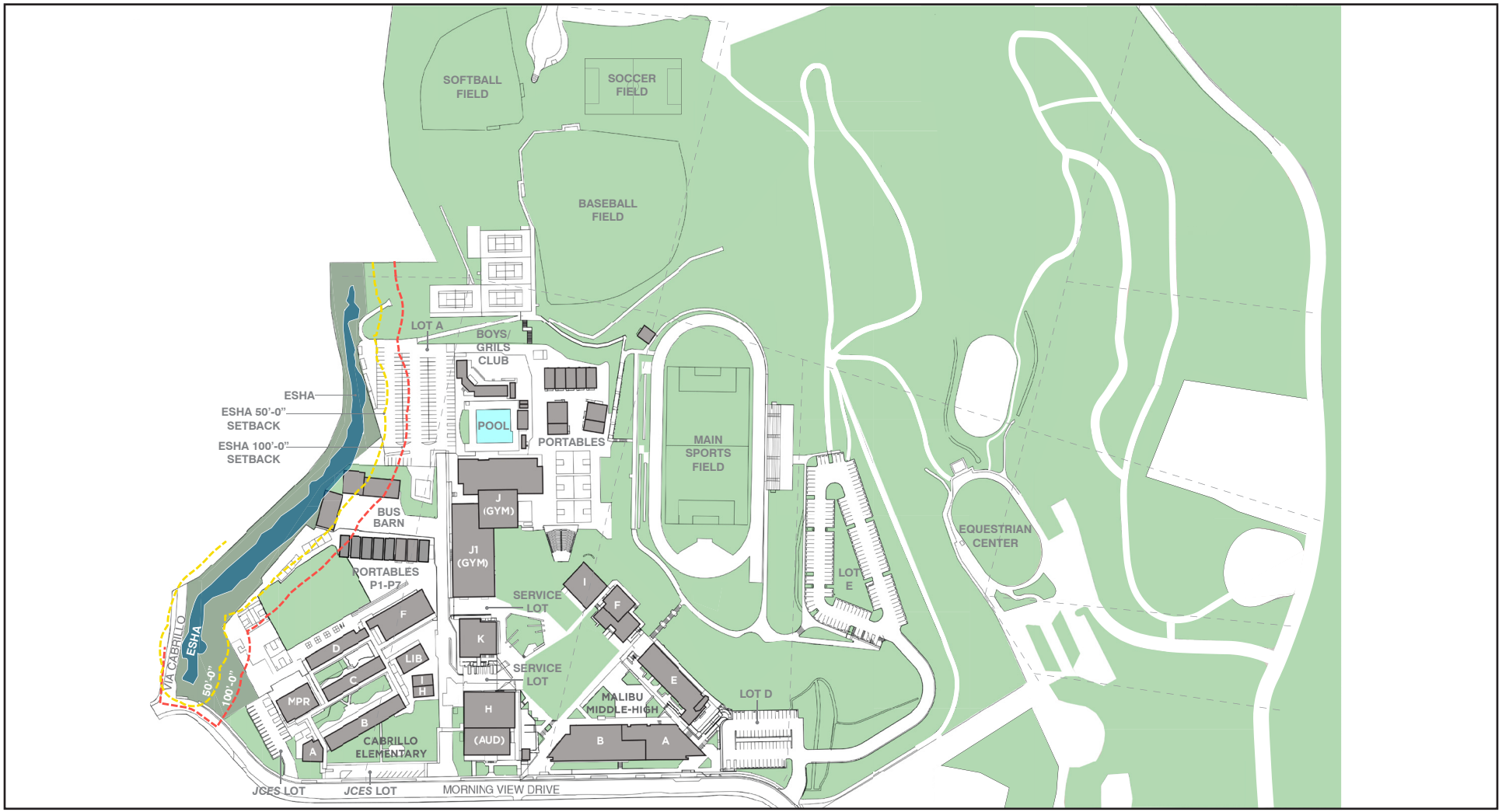
The Project Site is located within the Zuma Beach area in the Malibu Park neighborhood. As shown in Table 4-1, *District-Owned Assessor's Parcel Map Numbers Within the Project Site*, the approximately 87-acre District-owned property comprises the existing MMHS campus, the former JCES campus, and Malibu Equestrian Park (see Figure 4-1, *Existing Project Site Buildings and Facilities)*. The combined former JCES and MMHS campus contains 203,734 square feet of developed structures as shown in Tables 4-2, *Former JCES Campus Existing Building and Facilities,* and 4-3, *MMHS Campus Existing Building and Facilities* below, as well as student areas, athletic fields, and parking areas. The Project Site where Project components would occur consists of 52.03 acres of the total 86.69 acres of District-owned property.

Table 4-1 District-Owned Assessor's Parcel Map Numbers

APN Number	Size
4469-017-900[1] To Be Merged	40.06
4469-018-900	2.49
4469-018-901	2.44
4469-018-902	2.67
4469-018-903[1] To Be Merged	9.4
4469-018-904[1] Equestrian Park (to Include Bus Barn in Phase 4)	2.57
4469-019-900	4.05
4469-019-901	5.54
4469-019-902	17.47
Total District-Owned Acreage	**86.69**
Total Project Site	**52.03**

Source: Los Angeles County Department of Regional Planning 2020.
[1] APN includes part of the Project Site.

Figure 4-1 Existing Project Site Buildings and Facilities



Source: LPA, 2021

4. Environmental Setting

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Former JCES campus

The former JCES campus covers approximately six acres and is on the western end of the Project Site to the north of Morning View Drive, west of the MMHS campus. JCES formerly served elementary school grades K-5. As part of SMMUSD's wider Malibu Schools Alignment Project, the JCES student population combined with the Point Dume Marine Science School student population and moved to the Point Dume Marine Science School campus, renamed Malibu Elementary School, at the beginning of the 2019-20 school year. As shown in Table 4-2, the existing JCES campus includes administration offices, multiple classrooms, a library, a multipurpose room and food service area, and the Malibu Boys and Girls Club. Currently, existing students use the portable classrooms and Building E (Library). No other JCES rooms are currently being used.

Table 4-2 Former JCES Campus Existing Building and Facilities

Name	Primary Function	Square Footage
Building A: Administration Building	Main Administration offices.	2,280
Building B: Kindergarten Classroom Building	Kindergarten Classrooms	5,941
Building C: Classroom Building	Classrooms	4,554
Building D: Classroom Building	Classrooms	4,535
Building E: Library	Library	2,694
Building F: Classroom Building	Classrooms	7,952
Building G: Multipurpose Room Building	Multipurpose Room and Food Service	4,758
Buildings H and I: Cottage Portables	Special Education Classrooms	1,920 (2 x 960 sf)
Portables: Portables P1 to P5	Classrooms and Restrooms	5,280 (5 x 960sf, 1 x 480 sf)
Portables: P6 and P7	Malibu Boys and Girls Club	1,920 (2 x 960sf)
Restroom Portable	Restrooms	480
Total Square Footage		**42,314**

Source: SMMUSD 2021.

MMHS Campus

The MMHS campus covers approximately 34 acres of the overall SMMUSD property and operates as a sixth- through twelfth-grade public school with a 2018-19 enrollment of 939 students and 134 staff. As shown in Table 4-3, the MMHS campus has 60 classrooms (including 12 portable classrooms); a library, auditorium, kitchen and food service area, and administrative offices; an athletic field, two gymnasiums and locker rooms, a pool, nine basketball courts, four tennis courts, a field house for equipment storage, and the Malibu Boys and Girls Club; and parking for 282 vehicles in three parking lots, a bus barn, and a maintenance and operation warehouse. Additionally, the newly constructed Building A/B and Building E would remain, with no identified alterations or renovations anticipated as part of the Proposed Project.

4. Environmental Setting

Table 4-3 MMHS Campus Existing Building and Facilities

Name	Primary Function	Square footage
Buildings A/B: Administration/Library/Classroom Building[1]	Administration Offices, Library, Classrooms, Science Classrooms	35,315
Building E: Classroom Building[2]	Classrooms	13,515
Building F (300 Building): Music/Band/Choral Building	Music and Lecture	6,720
Building H (600 Building): Cafetorium	Food Service, Kitchen, Auditorium (350 seat capacity)	14,478
Building I (400 Building): Graphic Arts	Photo and Art Classrooms	4,561
Building J (Building 700): Gymnasium	Gymnasium and Locker Rooms	20,758
Building J1: 'New' Gymnasium	Gymnasium and Team Locker Rooms	18,835
Building K: Classroom Building	Classrooms and Science Labs	12,698
Pool	Swimming, Water Polo	Pool: 60 x75 feet Pool Equipment Building: 900
Field House	Equipment Storage	930
Portables (13 Interim Classrooms and Administration)	Interim Classrooms and Administration	12,960 (1 x1,920sf, 8 x 960sf, 1 x 480sf, 3 x 960sf)
Boys & Girls Club	Classrooms and Administration for before- and after-school care	9,120 (3 x 2,880, 1 x 480)
Bus Barn	Bus Storage	9,700
Maintenance and Operation Warehouse	Equipment Storage	930
Total Square Footage		**161,420**

Source: SMMUSD 2019.
1: Buildings A/B completed construction on November 30, 2020, and is ready for occupancy. These buildings would remain and would not be altered as part of the proposed project. Construction of Buildings A/B was evaluated and cleared as part of a previous MMHS EIR (SCH No. 2008091059).
2. Building E was recently constructed. This building would remain, with no work identified in the Proposed Project. Construction of Building E was evaluated and cleared as part of a previous MMHS EIR (SCH No. 2008091059)
3. Building D is included in this EIR for informational purposes. Demolition of Building D was evaluated for environmental impacts, cleared, and approved by the SMMUSD in October 2019.
4. Building G is included in this EIR for informational purposes. Demolition of Building G was evaluated for environmental impacts, cleared, and approved by the SMMUSD in June 2020.

Site Access, Circulation, and Parking

The Project Site can be accessed from Morning View Drive, approximately 0.3 miles northeast of the intersection of Morning View Drive and PCH and 0.9 miles southeast of the intersection of Guernsey Avenue and PCH. Morning View Drive is a narrow, two-lane, local roadway with an open drainage system that provides direct access to single-family homes in the area as well as to the existing MMHS and former JCES campuses and the Malibu Equestrian Park. Regional access to the Project Site is provided via PCH.

There are currently two main points of vehicular entry into the Project Site. The first entry is along the eastern edge of the campus from Morning View Drive. The second point of entry is at the access road between the former JCES campus and the MMHS campus. This entry is a service access point and provides access to the Bus Barn, Maintenance and Operations Warehouse, and Student Parking Lot A. As shown in Table 4-4, *Existing Project Site Parking*, there are currently five parking lots with a total of 375 parking spaces.

Student drop-off/pick-up for the Middle School currently occurs in Parking Lot E (150-space parking lot), while drop-off/pick-up for the High School Students occurs in the JCES Parking Lot. Sidewalks are provided on both sides of Morning View Drive from PCH north to the western end of the former JCES campus. There are currently three crosswalks along Morning View Drive that provide access to the former JCES and

MMHS campuses from the south side of the street. A crossing guard staffs the crosswalk in front of former JCES during the AM drop-off and PM pick-up peak periods. No parking is allowed along Morning View Drive.

Table 4-4 Existing Project Site Parking

Name	Spaces
150-Space Parking Lot (E)	150
Lower Parking Lot (D)	62
Student Parking Lot A	119
JCES Parking Lot	37
Service Lot	7
Total	**375**

Source: SMMUSD 2018.

4.3.1.3 SURROUNDING LAND USE

Surrounding land uses in the general vicinity of the Project Site include properties that are zoned Rural Residential (RR). These parcels are primarily developed with homes on lots that range between one and two acres in size. Single-family homes are to the north, west, and south of the Project Site. Immediately adjacent to the Project Site to the east is the Malibu Equestrian Center, which leases the District-owned property. The entirety of the District-owned property—including the former JCES, the MMHS campus, and the Equestrian Center—is zoned for institutional uses. To the south, across Morning View Drive, is the Malibu United Methodist Church and Nursery School. Zuma Beach and PCH are approximately 1,000 and 1,500 feet southwest of the Project Site, respectively.

4.3.2 General Plan and Zoning

4.3.2.1 CITY OF MALIBU GENERAL PLAN

The City of Malibu's General Plan was adopted November 20, 1995, and was intended to guide development, as well as promote the general welfare of the local community, while protecting the local resources. Table 4-5, *General Plan Relevance/Consistency*, shows the applicable policies relevant to the Proposed Project.

Table 4-5 General Plan Relevance/Consistency

General Plan Policies	Relevance/Consistency
LU Policy 1.1.1: The City shall protect the natural environment by regulating design and permitting only land uses compatible with the natural environment.	**Consistent.** Implementation of the Proposed Project would not result in a new land use onsite that would be incompatible with the natural environment. Instead, the Proposed Project would redevelop and modernize the existing MMHS campus and former JCES campus to provide increased resources for the campus. The zoning for the Project Site is entirely zoned institutional, which authorizes public school uses through the CDP and other entitlement processes. The Proposed Project is entirely for public school uses. The natural environment is protected by the institutional zoning and entitlement requirements.
LU Policy 1.1.4: The City shall preserve the City's rural residential character.	**Consistent.** Implementation of the Proposed Project would redevelop and modernize buildings within an existing school site. The institutional land use would remain the same. The Proposed Project would not impede upon the surrounding rural residential character. The Proposed Project's lighting program would be consistent with the existing lighting program on the MMHS campus and the City of Malibu's Dark Sky Ordinance. All campus lighting would be designed to provide for the security and safety of students, staff, and visitors. The Project Site is entirely zoned institutional, which authorizes public school uses through the CDP and other

4. Environmental Setting

Table 4-5 General Plan Relevance/Consistency

General Plan Policies	Relevance/Consistency
	entitlement processes. The Proposed Project is entirely for public school uses. The rural residential character of the adjacent neighborhood is protected by the institutional zoning and entitlement requirements.
LU Policy 1.1.5: The City shall require careful site planning which blends development with the natural topography.	**Consistent.** The topography of the campus slopes up north from Morning View Drive. The existing topography of the site would not be substantially altered because the Proposed Project would be designed to be consistent with the natural topography of the site.
LU Policy 1.2.1: The City shall prohibit development in ESHA unless no feasible alternative is available.	**Consistent.** As discussed previously as part of the Restoration Plan for the ESHA, the Proposed Project proposes to remove existing parking and drive aisles and maintain a 50-foot buffer from ESHA except for a meandering deconstructed granite walking path adjacent to the ESHA for instructional stations. Therefore, no development would occur in the ESHA.
LU Policy 1.4.1: The City shall preserve significant ridgelines and other significant topographic features (such as canyons, knolls, hills, and promontories).	**Consistent.** The Project Site is set amongst rolling hills and its buildings and athletic fields are terraced into its hillside setting. The existing topography of the site would be maintained, and no significant topographic features would be altered because of the Proposed Project's implementation.
LU Policy 2.1.4: The City shall require development to be landscaped so that the project blends in with the environment and neighborhood.	**Consistent.** The Proposed Project is a redevelopment and modernization of an existing public educational use. New development would be designed and landscaped in a manner that preserves the existing topography, incorporates sustainable building practices, maintains open spaces, and reflects the rural community character of Malibu. Landscaping would be provided along pathways, building perimeters, and within and around new parking lot areas.
LU Policy 2.2.1: The City shall require adequate infrastructure, including but not limited to roads, water, and wastewater disposal capacity, as a condition of proposed development.	**Consistent.** The Proposed Project would include adequate infrastructure to serve the MMHS Campus. The future onsite utilities would connect to existing facilities serving the site. The Proposed Project's modifications to the wastewater and drainage system would adequately serve MMHS Campus.
LU Policy 2.3.1: The City shall protect and preserve the unique character of Malibu's many distinct neighborhoods.	**Consistent.** Implementation of Proposed Project would modernize and renovate buildings within an existing school site. The Proposed Project is consistent with similar modern school facilities and the design limits its scale and massing to blend with the surrounding topography and buildings. The zoning for the Project Site is entirely zoned institutional, which authorizes public school uses through the CDP and other entitlement processes. The Proposed Project is entirely for public school uses. The unique character of Malibu's neighborhoods is protected by the institutional zoning and entitlement requirements.
LU Policy 2.4.2: The City shall limit nonresidential uses to those compatible with the rural residential character of the surrounding neighborhoods.	**Consistent.** The Proposed Project continues the existing public educational use for the site. The existing topography of the site would not be altered because of project implementation. The Proposed Project blends and preserves the rural qualities of the community including the maintenance of open space areas for equestrian and trail uses. The zoning for the Project Site is entirely zoned institutional, which authorizes public school uses through the CDP and other entitlement processes. The Proposed Project is entirely for public school uses. The rural residential character of the adjacent neighborhood is protected by the institutional zoning and entitlement requirements.
LU Policy 2.4.6: The City shall avoid improvements which create a suburban atmosphere such as sidewalks and streetlights.	**Consistent.** The Proposed Project would not create new sidewalks. However, the Proposed Project would include lighting on the existing and new campus parking lots, pedestrian pathways, pool lighting, and other nighttime security- and safety-required lighting, consistent with existing conditions. Pool lighting would be regulated by the requirements of California Building Code (CBC) § 3115B.1, requiring sufficient illumination that lifeguards have direct view of all areas of the pool surface and diving appurtenances. The Proposed Project's lighting program would be consistent with the City of Malibu's Dark Sky Ordinance. The Proposed Project would not change or modify the restrictions imposed on the Athletic Field lighting (CDP 12-024), or the lighting associated with the 150-space Parking Lot A under the existing CDP (CDP No. A-MAL-13-030). The Project Site is entirely zoned institutional, which authorizes public school uses through the CDP and other entitlement processes. The Proposed Project is entirely for public school uses. Elements that create a suburban atmosphere are avoided through the institutional zoning and entitlement requirements.

Source: Malibu 1995.

4.3.2.2 CITY OF MALIBU MUNICIPAL CODE

The Zoning Regulations (Title 17 of the Malibu Municipal Code), in conformance with the General Plan, regulate land use development in the City of Malibu. In each zoning designation, the regulations specify the permitted and prohibited uses and the development standards, including setbacks, height, parking, and design standards, among others. The Proposed Project is located within the Institutional District Zone that authorizes public educational institutions with a conditional use permit.

4.3.3 Aesthetics

The city of Malibu is bound by the Pacific Ocean to the west and the Santa Monica Mountains to the east. The visual character of the city of Malibu is largely rural residential in a scenic coastal setting with homes situated in the canyon, mountain, and hillside areas of Malibu, as well as moderate-density contemporary single- and multifamily residential development and commercial uses along PCH, which extends the length of the city of Malibu along the Pacific Ocean and the beach. Residential development in the area is often of high design, and complimentary to the natural landscape, contributing to a high scenic quality throughout the area.

Due to the city's location in a Coastal Zone, the City of Malibu is subject to provisions of the California Coastal Act (CCA) relating to scenic and visual resources. As required by § 30251 of the CCA, scenic and visual resources are to be preserved and protected, and views of these resources are to be protected from public viewing locations. Scenic resources in the city of Malibu are associated with the dramatic topography and natural landscape features of the area, which includes steep coastal bluffs, hills, rugged slopes, ridgelines, and dense native vegetation, which typify the California Mediterranean landscape, as well as beaches, and the Pacific Ocean. These scenic resources are visible from many vantage points. High visibility of these resources can be attributed to the sloping terrain of the area, which slopes towards the ocean providing expansive views from most elevations, and the low to moderate density of development. Places on public roads, trails, parklands, and beaches that offer scenic vistas are considered public viewing areas. Designated scenic resources visible from the Project Site are limited to intermittent background views of the vegetated slopes of the Santa Monica Mountains and the Pacific Ocean, which is also visible from a number of vantage points both on and in the vicinity of the Project Site. No identified scenic resources, as defined by the City's General Plan Conservation Element, are located within or adjacent to the Project Site. Details related to impacts on the Project Site's scenic features and visual character are provided in Section 5.1, *Aesthetics*.

4.3.4 Air Quality and Climate

As noted in Section 4.2.2.1, the Project Site is in the SoCAB, which is managed by South Coast AQMD. The SoCAB is designated nonattainment for O_3, $PM_{2.5}$, PM_{10}, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for nitrogen dioxide (NO_2) under the California AAQS.

The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semipermanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds.

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the Project Site that best represents the climatological conditions of the area is the Lechuza Patrol, California Monitoring Station (ID 044867). Rainfall is seasonally and annually highly variable. Almost all rain falls from November through May. Rainfall averages 21.56 inches per year in the vicinity of the Project Site (WRCC 2020).

An air quality analysis was performed for the Proposed Project and the results are discussed in Section 5.2, *Air Quality*. Project-related impacts from GHG emissions are discussed in Section 5.7, *Greenhouse Gas Emissions*. Existing climate and air quality conditions in the City are also provided in Sections 5.2 and 5.7.

4.3.5 Biological Resources

There is very little natural vegetation on-site, consisting primarily of grasses, ivy, brush, shrubs, and scattered ornamental and native trees. The Environmentally Sensitive Habitat Area (ESHA) Map shows a stream approximately 400 feet northwest of the campus. The stream consists of an underground pipe from Floris Heights Road that flows under the school property and daylights into a natural streambed to the south of the school property. The stream extends for approximately 1,088 feet and varies between approximately 24 and 85 feet wide. the stream course is deeply incised with steep banks. The top of the southeast bank extends significantly higher than the northwest bank because it is immediately adjacent to the campus. The City of Malibu maintains policies to protect ESHAs within city limits, and new developments must be sited and designed to minimize impacts to the ESHA. Portions of the campus are developed within the 100-foot buffer, including the Bus Barn, tennis courts, and portions of the former JCES yard. However, all of these structures were developed prior to the certification of the Local Coastal Plan (LCP), which occurred in 2002, and many of the existing uses predate the CCA.

Refer to Section 5.2, *Biological Resources*, for additional information concerning biological resources and an analysis of project impacts on such resources.

4.3.6 Cultural and Paleontological Resources

A search of the Sacred Lands File by the Native American Heritage Commission (NAHC) did not identify any previously known cultural resources within the Project Site. The cultural records search indicated there are 239 previous cultural resource investigations that have been conducted within one mile of the Project Site. Of the 239 previous investigations, 5 were located within the Project Site. The records search also indicated that 27 previously recorded pre-contact and historic-era cultural resources are located within one mile of the Project Site. Of these resources, 26 are believed to be associated with Native American occupation of the region, and one is a historic-era site associated with early settlers in the area. No cultural resources were identified within the Project Site as a result of the records search. The records search also revealed that the buildings associated with the two school campuses are not within a known historic district.

The Project Site is not listed in the National Register of Historic Places, the California Register of Historic Resources, California Historical Landmarks, or California Points of Historical Interest. However, there are

historic-period buildings within both MMHS and former JCES Campuses. No archaeological or paleontological resources were observed within the Project Site during the field survey conducted.

Refer to Sections 5.4, *Cultural Resources*, and 5.6, *Geology and Soils*, for additional information concerning historical resources and an analysis of project impacts on such resources.

4.3.7 Geology and Landforms

The Project Site is on the southern flanks of the western portion of the Santa Monica Mountains. Maximum topographic relief on-site is approximately 94 feet, with elevations ranging from 86 to 180 feet above mean sea level. The campus consists of several near-level pad areas with generally ascending slopes to the north and descending slopes to the PCH to the south. On the MMHS campus, the street-level pad contains the recently constructed MMHS administration, library, and classroom buildings (Buildings A/B); the under-construction Lower Parking Lot; and an outdoor courtyard, cafeteria, and auditorium. On the former JCES campus, the pad contains the administration building, the kindergarten classroom, the special education classrooms, and the JCES Parking Lot. The next pad to the northwest contains the newer and old gymnasiums, outdoor basketball courts and swimming pool, the Boys & Girls Club of Malibu facility, and the Bus Barn and Parking Lot A on the MMHS campus, as well as the multipurpose room, the library, and three educational buildings on the former JCES campus. The third pad contains the football field and track and the 150-space Parking Lot. The fourth pad contains the tennis courts and baseball diamonds. The fifth and highest pad contains the 150-space Parking Lot. Each terrace is accessible via stairs and handicap-accessible ramps. From street level, views of the development on the elevated terraces are limited.

Refer to Section 5.6, *Geology and Soils*, for additional information concerning geological and soil conditions and an analysis of the Proposed Project's impacts on geology and soils.

4.3.8 Hydrology and Water Quality

The Project Site is in the Santa Monica Bay hydrologic unit, Point Dume hydrologic area, and Zuma Canyon and Trancas Canyon subareas (numbers 404.36 and 404.37, respectively) (Caltrans 2021). Zuma Canyon Creek is less than 0.5 miles south of the Project Site. Zuma Creek is one of many north-south drainages originating in the Santa Monica Mountains, draining just east of Point Dume. The Project Site is within the Santa Monica Bay Watershed Management Area (WMA), which encompasses 414 square miles. Its borders reach from the crest of the Santa Monica Mountains on the north and from the Ventura-Los Angeles County line to downtown Los Angeles. From there it extends south and west across the Los Angeles plain to include the area east of Ballona Creek and north of the Baldwin Hills. South of Ballona Creek, the natural drainage area is a narrow strip of wetlands between Playa del Rey and Palos Verdes. The WMA includes several watersheds, the two largest being Malibu Creek to the north (west) and Ballona Creek to the south. The Malibu Creek area contains mostly undeveloped mountain areas, large acreage residential properties, and many natural stream reaches, while Ballona Creek is predominantly channelized and highly developed with both residential and commercial properties (LARWQCB n.d.). Drainage from the majority of the Project Site flows generally in a southward direction and to a network of storm drain systems and catch basins that outlet through the curb face to the adjacent Morning View Drive. A portion of the Project Site (Parking Lot A and Tennis Courts) flows north to northwest to a natural drainage mapped on the City of Malibu's LCP ESHA Map.

The Project Site is not located within the 100-year or 500-year flood zone, as defined by the Federal Emergency Management Agency (FEMA 2021).

Refer to Section 5.9, *Hydrology and Water Quality*, for additional information regarding hydrologic conditions and an analysis of the Proposed Project's impacts on hydrology and water quality.

4.3.9 Noise

Lands near the Project Site are generally developed and include rural residential uses to the north and south, undeveloped institutional land to the east, and the Pacific Ocean to the southwest. According to the Noise Element of the General Plan, the dominant noise source in Malibu is roadway traffic from PCH, which runs east to west throughout the city. A variety of land uses exist throughout the community, but the predominant land uses in Malibu are noise-sensitive residential uses.

Refer to Section 5.11, *Noise*, for additional information concerning the noise environment and an analysis of the Proposed Project's noise impacts.

4.3.10 Public Services and Utilities

4.3.10.1 WASTEWATER TREATMENT FACILITIES

The Civic Center Water Treatment Facility (CCWTF) is a centralized wastewater and recycled water treatment facility that treats wastewater from properties in the Malibu Civic Center area and then provides recycled water to those properties. Phase One of the CCWFT was completed in October 2018, and Phase Two will expand the facility from 190,000 gallons per day to 350,000 gallons per day and will construct a collection system and pump stations (City of Malibu 2021).

4.3.10.2 ON-SITE WASTEWATER TREATMENT SYSTEMS

Ten onsite wastewater treatment systems exist on the Project Site. Each of these systems services different areas and facilities on the campuses. These wastewater systems consist of septic tanks, distribution boxes, leach fields, and seepage pits. A typical septic system consists of one septic tank connected to several seepage pits.

Refer to Sections 5.12, *Public Services*, and 5.15, *Utilities and Service Systems*, for additional information regarding public services and utilities and service systems, respectively, and an analysis of the Proposed Project's impacts on services and utilities.

4.3.11 Transportation

4.3.11.1 REGIONAL HIGHWAY NETWORK

Regional vehicle access to the Project Site is provided via PCH. Primary local access to the Project Site is from Morning View Drive, approximately 0.3 mile northeast of the intersection of Morning View Drive and PCH, and 0.9 mile southeast of the intersection of Guernsey Avenue and PCH. Morning View Drive is a narrow, two-lane, local roadway that provides direct access to single-family homes in the area as well as to the existing MMHS and former JCES campuses and the Malibu Equestrian Park.

4.3.11.2 LOCAL ROADWAY NETWORK

- **Morning View Drive** is a two-lane, predominantly east-west local roadway that runs from a signalized intersection at PCH to the south and runs northwest to a stop-controlled intersection at Guernsey Avenue. The road has a rural cross-section and open channel drainage, with significant changes in horizontal and vertical curvature. Morning View Drive provides access to homes and local and private roads as well as direct access to the MMHS campus via five driveways. The driveways provide access to four off-street parking areas and the main roadway that provides access to the rear area of the school. The posted speed limit is 30 and 25 mph in the school zone. On-street parking is available on the south side of the street in front of the Project Site. On the north side of the street, green curbs indicate short-term parking zones for student drop-off and pick-up.

- **Merritt Drive** is a north-south local roadway that connects Morning View Drive in the south to Busch Drive to the north. It is a two-lane roadway with a rural cross-section and open channel drainage. It provides access to single-family residences and the Malibu Equestrian Park. It has a posted speed limit of 30 mph. Merritt Drive eventually merges with Busch Drive just south of Harvester Road.

- **Phillip Avenue** is a two-lane, predominantly east-west local roadway that connects to Morning View Drive to the south and provides access to single-family residences to the north. East of Sea View Drive, Phillip Avenue becomes Harvester Road.

- **Guernsey Avenue** is a two-lane, predominantly east-west local roadway that connects to Morning View Drive to the north and provides access to PCH to the south.

- Clover Heights Avenue is a north-south local roadway that connects to Harvester Road in the north and provides access to the baseball fields on the north side of the Project Site.

4.3.11.3 TRANSIT SERVICE

Los Angeles County Metropolitan Transportation Authority (Metro) provides public bus transit to the immediate vicinity. Route 534, which has multiple stops along PCH, including a stop at the northeast corner of PCH and Morning View Drive. This line is used by some students to get to the Project Site.

4.3.11.4 PEDESTRIAN AND BICYCLE FACILITIES

Sidewalks are present on both sides of Morning View Drive from PCH to the western school boundary. The sidewalks in front of MMHS campus on the north side of Morning View Drive are paved. Sidewalks along the south side of Morning View Drive in front of MMHS and on both sides of Morning View Drive past the school boundaries are unpaved. Sidewalks on Morning View Drive west of the school's western limits are not continuous; they exist mostly along the north side or the road and consist of unpaved sidewalks. Guernsey Avenue features a sidewalk halfway between PCH and Morning View Drive on the south side. In front of MMHS on Morning View Drive, four yellow ladder-striped crosswalks provide access from the south side of the street to campus. Two crossing guards staff the eastern crosswalks on Morning View Drive in front of the school during the morning drop-off and afternoon pick-up peak periods.

Refer to Section 5.14, *Transportation*, for additional information concerning existing transportation facilities and traffic conditions and an analysis of project-related impacts.

4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a level of detail as that necessary for the project alone. Section 15355 of the CEQA Guidelines defines cumulative impacts as "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

The CEQA Guidelines (§ 15130 [b][1]) state that the information used in an analysis of cumulative impacts should come from one of two sources:

A. A list of past, present, and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency.

B. A summary of projections contained in an adopted General Plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analysis in this DEIR uses Method A. A summary of cumulative projects used in the impact analysis is included in Table 4-6, *Cumulative Projects* (see Figure 4-2*, Cumulative Projects*).

Table 4-6 Cumulative Projects

Project	Location	Project Components
Whole Foods and The Park Shopping Center	Civic Center Way and Cross Creek Road	• 24,549 sq ft Whole Foods • 13,876 sq ft commercial retail buildings • Up to 4,000 sq ft restaurant space
Malibu Inn Motel (Replaced Malibu Surfrider Plaza)	22959 PCH, Malibu CA	• 7,693 sq ft motel with 20 lodging units • 47 parking spaces for motel • 40 surface spaces for overflow • Project completion: July 2022
Malibu Memorial Park	4000 Malibu Canyon Rd, Malibu CA	• 6,000 sq ft chapel • 47 mausoleum structures • 28,265 in-ground burial plot spaces
SMC – Malibu Campus	23555 Civic Center Way, Malibu CA	• 25,000 sq ft • Project completion: August 2022
La Paz Ranch	3700 La Paz Ln, Malibu CA	• 20,000 sq ft City Hall complex • 112,058 sq ft of commercial office and retail uses
Malibu Jewish Center and Synagogue	24855 PCH, Malibu CA	• 2-story, 16,410 sq ft classroom/admin building • 2,013 sq ft synagogue building and basement
Malibu Beach Inn Hotel	22878 PCH, Malibu CA	• Constructing amenities
Sea View Hotel	22729 and 22741 PCH, Malibu CA	• 23,278 sq ft building with 39 hotel rooms • 91 parking spaces • Project completion: January 2023

Table 4-6 Cumulative Projects

Project	Location	Project Components
Malibu Skate Park	PCH and Malibu Canyon Rd	• 12,500 sq ft skate park
Trancas Bridge Replacement Project	Bridge on PCH at Trancas Creek	• Project completion: July 2023
Phase 1 of the Malibu Schools Alignment Project	6955 Fernhill Drive	• 15,000 sq ft, 8-classroom building • 2,500 sq ft admin building

(Kittelson Associates Inc. 2021)

4. Environmental Setting

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Figure 4-2 Cumulative Projects

Source: Kittelson & Associates, Inc., 2021

4. Environmental Setting

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4.6 REFERENCES

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4. Environmental Setting

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5. Environmental Analysis

Chapter 5 examines the environmental setting of the Malibu Middle and High School (MMHS) Campus Specific Plan Project (Proposed Project), analyzes its effects and the significance of its impacts, and recommends mitigation measures to reduce or avoid impacts. This chapter has a separate section for each environmental issue area that was determined to need further study in the Draft Environmental Impact Report (DEIR). This scope was determined in the Initial Study/Notice of Preparation (IS/NOP), which were published August 20, 2020 (see Appendix B), and through public and agency comments received during the NOP comment period from August 20, 2020, to September 21, 2020 (see Appendix C). Environmental issues and their corresponding sections are:

- 5.1 Aesthetics
- 5.2 Air Quality
- 5.3 Biological Resources
- 5.4 Cultural Resources
- 5.5 Energy
- 5.6 Geology and Soils
- 5.7 Greenhouse Gas Emissions
- 5.8 Hazards and Hazardous Materials
- 5.9 Hydrology and Water Quality
- 5.10 Land Use and Planning
- 5.11 Noise
- 5.12 Public Services
- 5.13 Recreation
- 5.14 Transportation
- 5.15 Utilities and Service Systems
- 5.16 Wildfire

Sections 5.1 through 5.16 provide a detailed discussion of the environmental setting, impacts associated with the Proposed Project, and mitigation measures designed to reduce significant impacts where required and when feasible. The residual impacts following the implementation of any mitigation measure are also discussed.

The IS/NOP also determined that certain issues under an environmental topic would not be significantly affected by implementation of the Proposed Project; these issues are not discussed further in this DEIR.

5. Environmental Analysis

Organization of Environmental Analysis

To assist the reader with comparing information between environmental issues, each section is organized under the following major headings:

- Environmental Setting
- Thresholds of Significance
- Environmental Impacts
- Mitigation Measures
- Level of Significance After Mitigation
- Cumulative Impacts
- References

In addition, Chapter 1, *Executive Summary,* has a table that summarizes all impacts by environmental issue.

Terminology Used in This Draft EIR

The level of significance is identified for each impact in this DEIR. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with California Environmental Quality Act (CEQA) and the CEQA Guidelines:

- **No impact.** The Proposed Project would not change the environment.

- **Less than significant.** The Proposed Project would not cause any substantial, adverse change in the environment.

- **Less than significant with mitigation incorporated.** The EIR includes mitigation measures that avoid substantial adverse impacts on the environment.

- **Significant and unavoidable.** The Proposed Project would cause a substantial adverse effect on the environment, and no feasible mitigation measures are available to reduce the impact to a less than significant level.

5.1 AESTHETICS

This section of the Draft Environmental Impact Report (DEIR) evaluates the Malibu Middle and High School (MMHS) Campus Specific Plan Project's (Proposed Project's) potential impacts on aesthetic and visual resources related to scenic vistas, views from trails, visual character, visual quality, and new sources of light and glare.

The analysis in this section is based in part on the existing conditions observed during two Project Site visits on June 16 and September 15, 2021, daytime and nighttime simulations prepared for the Proposed Project, and the following report:

- *Santa Monica-Malibu Unified School District, Malibu Middle and High School Campus Improvement project, Environmental Impact Report, July 2011*

A California Environmental Quality Act (CEQA) scoping meeting was conducted on September 9, 2020, where one attendee expressed concerns about lighting and noise impacts from the increased traffic associated with the new Parking Lot F. Several comment letters were received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project by nearby residents regarding the Proposed Project's potential lighting impacts and conflicts with the City of Malibu Dark Sky Ordinance, which is evaluated in this section. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.1.1 Environmental Setting

5.1.1.1 REGULATORY BACKGROUND

State and local laws, regulations, plans, or guidelines related to aesthetics that are applicable to the Proposed Project are summarized here.

State

California Coastal Act of 1976

The California Coastal Act of 1976 (CCA) established a set of policies, coastal boundary lines, and permitting procedures regulating coastal development. It provides for the transfer of permitting authority, with certain limitations reserved for the State, to local governments through adoption and certification of local coastal plans by the Coastal Commission. One of the primary objectives of the CCA is the protection of scenic and visual qualities of coastal areas as a resource of public importance. Section 30251 of the CCA requires that development be sited and designed to protect views to and along the ocean and other scenic coastal areas. New development must minimize the alteration of natural landforms and to be sited and designed to be visually compatible with the character of surrounding areas. Where feasible, development shall include measures to restore and enhance the visual quality in visually degraded areas.

State Scenic Highway Program

The State Scenic Highway Program was created in 1963 by the State Legislature to protect and enhance the natural scenic beauty along portions of state highway system that are determined to be scenic highways. Scenic highways can have an "eligible" designation or be "officially designated." The status of a proposed state scenic highway changes from eligible to officially designated when a local jurisdiction adopts a scenic corridor protection program, then applies to the California Department of Transportation (Caltrans) for scenic highway approval and receives notification from Caltrans that the highway has been officially designated as a Scenic Highway.

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

Chapter 6, Scenic and Visual Resources

The LUP has specific aesthetic policies, including the following (City of Malibu 2002b).

- **LUP Policy 6.2:** Places on and along public roads, trails, parklands, and beaches that offer scenic vistas are considered public viewing areas. Existing public roads where there are views of the ocean and other scenic areas are considered Scenic Roads. Public parklands and riding and hiking trails which contain public viewing areas are shown on the LUP Park Map. The LUP Public Access Map shows public beach parks and other beach areas accessible to the public that serve as public viewing areas.

- **LUP Policy 6.4:** Places on, along, within, or visible from scenic roads, trails, beaches, parklands and state waters that offer scenic vistas of the beach and ocean, coastline, mountains, canyons and other unique natural features are considered scenic areas. Scenic areas do not include inland areas that are largely developed or built out such as residential subdivisions along the coastal terrace, residential development inland of Birdview Avenue and Cliffside Drive on Point Dume, or existing commercial development within the Civic Center and along Pacific Coast Highway east of Malibu Canyon Road.

- **LUP Policy 6.5:** New development shall be sited and designed to minimize adverse impacts on scenic areas visible from scenic roads or public viewing areas to the maximum feasible extent. If there is no feasible building site location on the proposed project site where development would not be visible, then the development shall be sited and designed to minimize impacts on scenic areas visible from scenic

highways or public viewing areas, through measures including, but not limited to, siting development in the least visible portion of the site, breaking up the mass of new structures, designing structures to blend into the natural hillside setting, restricting the building maximum size, reducing maximum height standards, clustering development, minimizing grading, incorporating landscape elements, and where appropriate, berming.

- **LUP Policy 6.6:** Avoidance of impacts to visual resources through site selection and design alternatives is the preferred method over landscape screening. Landscape screening, as mitigation of visual impacts shall not substitute for project alternatives including resiting, or reducing the height or bulk of structures.

- **LUP Policy 6.7:** The height of structures shall be limited to minimize impacts to visual resources. The maximum allowable height, except for beachfront lots, shall be 18 feet above existing or finished grade, whichever is lower. On beachfront lots, or where found appropriate through Site Plan Review, the maximum height shall 24 feet (flat roofs) or 28 feet (pitched roofs) above existing or finished grade, whichever is lower. Chimneys and rooftop antennas may be permitted to extend above the permitted height of the structure.

- **LUP Policy 6.8:** Prominent ridgeline and other intervening ridgelines that are visible from a public road, a beach, public viewing areas or public hiking trails, shall be protected by setting structures below the ridgeline to avoid intrusions into the skyline where feasible. Where there are no feasible alternative building sites below the ridgeline or where the only alternative building would result in unavoidable adverse impacts to environmentally sensitive habitat areas (ESHA), structures shall be limited to one story (18 feet maximum from existing or finished grade, which is lower) in height to minimize visual impacts.

- **LUP Policy 6.9:** All new development shall be sited and designed to minimize alteration of natural landforms by:

  a. Conforming to the natural topography

  b. Preventing substantial grading or reconfiguration of the project site

  c. Eliminating flat building pads on slopes. Building pads on sloping sites shall utilize split level or stepped designs

  d. Requiring that man-made contours mimic the natural contours

  e. Ensuring that graded slopes blend with the existing terrain of the site and surrounding area

  f. Minimizing grading permitted out of the building footprint

  g. Clustering structures to minimize site disturbance and to minimize development area

  h. Minimizing height and length of cut and fill slopes

  i. Minimizing the height and length of retaining walls

j. Cut and fill operations may be balanced on site, where the grading does not substantially alter the existing topography and blends with the surrounding. Export of cut material may be required to preserve the natural topography.

- **LUP Policy 6.10:** New development, including a building pad, if provided, shall be sited on the flattest area of the project site, except where there is an alternative location that would be more protective of visual resources or ESHA.

- **LUP Policy 6.11:** The length of on-site roads or driveways shall be minimized, except where a long road or driveway would allow for an alternative building site location that would be more protective of visual resources or ESHA. Driveway slopes shall be designed to follow the natural topography. Driveways that are visible from a scenic road, a beach, a public viewing area, or public hiking trail shall be a neutral color that blends with the surrounding landforms and vegetation.

- **LUP Policy 6.12:** All new structures shall be sited and designed to minimize impacts to visual resources by:

  a. Ensuring visual compatibility with the character of surrounding areas

  b. Avoiding large cantilevers or understories

  c. Setting back higher elements of the structure toward the center or uphill portion of the building.

- **LUP Policy 6.13:** New developments in areas visible from scenic roads or public viewing areas shall incorporate colors and exterior materials that are compatible with the surrounding landscape. The use of highly reflective materials shall be prohibited.

- **LUP Policy 6.15:** Fences, walls and landscaping shall not block views of scenic areas from scenic roads, parks, beaches and other public viewing areas.

- **LUP Policy 6.20:** New development on properties visible from and inland of Pacific Coast Highway (PCH) shall be sited and designed to protect public views of the ridgelines and natural features of the Santa Monica Mountains through measures including, but not limited to, restricting the building maximum size, reducing maximum height limits, clustering development, incorporating landscape elements, and where appropriate berming.

- **LUP Policy 6.23:** Exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) shall be minimized, restricted to low intensity fixtures, shielded, and concealed to the maximum feasible extent so that no light source is directly visible from public viewing areas. Night lighting for sports courts or other private recreational facilities in scenic areas designated for residential use shall be prohibited.

- **LUP Policy 6.27:** New developments shall minimize removal of natural vegetation. Existing native trees and plants shall be preserved on the site, consistent with Policy 3.60.

- **LUP Policy 6.28:** All new development shall be sited and designed to minimize required fuel modification and brushing to the maximum extent feasible. Development shall incorporate alternative fuel modification measures, where feasible, in order to minimize the visual resource impacts of site disturbance, removal, and thinning of natural vegetation.

- **LUP Policy 6.29:** Cut and fill slopes and other areas disturbed by construction activities shall be landscaped or revegetated at the completion of grading. Landscape plans shall provide that:

  a. Planting shall be of native, drought-tolerant plant species, and blend with the existing natural vegetation and natural habitats on the site, except as noted below.

  b. Invasive plant species that tend to supplant native species and natural habitats shall be prohibited.

  c. Noninvasive ornamental plants and lawn may be permitted in combination with native, drought-tolerant species within the irrigated zone(s) required for fuel modification nearest approved residential structures.

  d. Lawn shall not be located on any geologically sensitive area such as coastal blufftop.

  e. Landscaping or revegetation shall provide 90 percent coverage within five years. Landscaping or revegetation that is located within any required fuel modification thinning zone (Zone C, if required by the Los Angeles County Fire Department) shall provide 60 percent coverage within five years.

- **LUP Policy 6.30:** Signs shall be designed and located to minimize impacts to visual resources. Signs approved as part of commercial development shall be incorporated into the design of the project and shall be subject to height and width limitations that ensure that signs are visually compatible with surrounding areas and protect scenic views.

- **LUP Policy 6.31:** Placement of signs other than traffic or public safety signs, utilities, or other accessory equipment that obstruct views to the ocean, beaches, parks, or other scenic areas, from public viewing areas and scenic roads shall be prohibited.

- **LUP Policy 6.33:** The Pacific Coast Highway corridor shall be protected as a scenic highway and significant viewshed.

Local Coastal Program's Local Implementation Plan

Chapter 6, Scenic, Visual, and Hillside Resource Protection Ordinance

Chapter 6, *Scenic, Visual, and Hillside Resource Protection Ordinance*, of the LIP is intended to enhance and protect the scenic and visual qualities of coastal and mountain areas within the City of Malibu as a resource of public importance in accordance with policies of the City of Malibu's LUP and the CCA. Development standards included as Section 6.4 of the chapter are provided to ensure that permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas (City of Malibu 2002c).

5. Environmental Analysis
AESTHETICS

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 3. Conservation Element

The City of Malibu General Plan's Conservation Element serves as a guide for the conservation, protection, restoration and management, development, and appropriate and responsible use of the city's existing natural resources. The Conservation Element has the following goals, policies, and objectives related to visual resources (City of Malibu 1995).

Objective 1.4: Scenic resources preserved and protected.

- **Policy 1.4.1:** The City shall identify, designate, and protect distinct natural landform features as scenic resources.
- **Policy 1.4.2:** The City shall protect viewsheds of the ocean and surrounding mountains and hillsides.
- **Policy 1.4.3:** The City shall protect Pacific Coast Highway as a significant viewshed.

Malibu Municipal Code

City of Malibu Dark Sky Ordinance

The City of Malibu Dark Sky Ordinance, Chapter 17.41 of the Malibu Municipal Code, regulates outdoor lighting through outdoor lighting standards. The purpose of the City of Malibu Dark Sky Ordinance is to protect and promote public health, safety, welfare, quality of life, and the ability to view the night sky by establishing regulations and a process for review of outdoor lighting to accomplish the following (§ 17.41.020):

A. Minimize direct glare and prevent excessive lighting, thereby minimizing light pollution caused by inappropriate or misaligned light fixtures, and promoting common courtesy among neighbors;

B. Reclaim the ability to view the night sky and thereby help preserve Malibu's rural quality of life and the scenic value of this desirable visual resource;

C. Promote wildlife habitation and migration by minimizing light pollution into and adjacent to habitat areas;

D. Prevent light pollution wherever possible in all areas of the city;

E. Provide sufficient lighting where it is needed to promote safety and security on public and private property;

F. Allow flexibility in the style of outdoor lighting;

G. Provide standards for efficient and moderate use of lighting which balance energy use and economic impact;

H. Provide lighting standards that can evolve according to advancements in technology; and

I. Promote lighting practices and systems which conserve energy, decrease dependence on fossil fuels and limit greenhouse gas emissions consistent with the California Global Warming Solutions Act and other applicable state and federal law.

Citywide requirements apply to all outdoor light fixtures, with a few exceptions, including lighting within public rights-of-way for the purpose of illuminating public streets or traffic control, lighting to illuminate certain signage, construction or emergency lighting, aircraft navigation lights, short-term lighting associated with authorized activities, and Malibu school field and parking lot lights. This ordinance also does not apply to indoor lighting.

All outdoor light fixtures are required to be fully shielded and installed and maintained in such a manner that does not allow light trespass in excess of the following amounts, measured with a light meter oriented vertically and horizontally at the property line of the property on which the light is trespassing:

1. From any property onto a residential property, ESHA [Environmentally Sensitive Habitat Area], ESHA buffer, Pacific Ocean, beaches, and public viewing areas, the maximum allowable light trespass shall be 0.1 foot-candles.

2. From any property onto a non-residential property other than ESHA, ESHA buffer, Pacific Ocean, beaches, and public viewing areas, the maximum allowable light trespass shall be 0.25 foot-candles.

The ordinance provides additional citywide regulations and lighting requirements by zoning district.

5.1.1.2 EXISTING CONDITIONS

Visual Character

Local Character and Adjacent Uses

The City of Malibu is in the northern coastal zone of Los Angeles County. Malibu is bound by the Pacific Ocean to the south and west, unincorporated Los Angeles County and Santa Monica Mountains to the north, Pacific Palisades, and the city of Santa Monica to the southeast (see Figure 3-1, *Regional Location*). The visual character of Malibu is largely rural residential in a scenic coastal setting with homes situated in the canyon, mountain, and hillside areas of Malibu, as well as moderate-density contemporary single- and multifamily residential development and commercial uses along Pacific Coast Highway (PCH), which extends the length of the city along the Pacific Ocean, and along the beach itself. Residential development in the area is often architecturally unique, on larger lots with deep setbacks, and complimentary to the natural landscape, contributing to a high scenic quality throughout the area.

Surrounding land uses in the general vicinity of the Project Site include properties that are zoned Rural Residential (RR). These parcels are primarily developed with homes on lots that range between one and two acres in size. Single-family homes are to the north, west, and south of the Project Site. Immediately adjacent to the Project Site to the east is the Malibu Equestrian Center, which leases the property owned by the Santa

Monica-Malibu Unified School District (SMMUSD or District). The entirety of the District-owned property—including the former Juan Cabrillo Elementary School (JCES), the Malibu Middle and High School (MMHS) campus, and the Equestrian Center—is zoned Institutional (I) District Zone that allows for institutional use with a conditional use permit. To the south, across Morning View Drive, is the Malibu United Methodist Church and Nursery School. Zuma Beach and PCH are approximately 1,000 and 1,500 feet southwest of the Project Site, respectively. The beach and coastline are not visible from most vantage points on the campus due to terrain, existing development, and vegetation. Undeveloped land surrounding the Project Site and in the vicinity is commonly vegetated with native and disturbed coastal scrub brush.

Project Site Visual Character

The SMMUSD property is at 30215 Morning View Drive and consists of approximately 87 acres over nine parcels that includes the existing Malibu Equestrian Park in the eastern portion of the property, the existing MMHS campus in the center of the property, and the former JCES campus in the western portion of the property. The majority of the Proposed Project would be developed within the existing MMHS campus and the former JCES campus, with one component of the Proposed Project located within the Malibu Equestrian Park. The Project Site is set amid rolling hills, and its buildings and athletic fields are terraced into the hillside.

The Project Site is approximately 0.25 miles northeast of both PCH and Zuma Beach, and bounded by Merritt Drive to the east, Via Cabrillo Street to the west, and Morning View Drive to the south (see Figure 3-2, *Local Vicinity*). Single-family homes border the Project Site to the north (see Figure 3-3, *Aerial Photograph*).

The former JCES campus is on the western end of the Project Site to the north of Morning View Drive, west of the MMHS campus. JCES formerly served elementary school grades K-5. As part of SMMUSD's wider Malibu Schools Alignment Project, the JCES student population combined with the Point Dume Marine Science School student population and moved to the Point Dume Marine Science School campus, renamed Malibu Elementary School, at the beginning of the 2019-20 school year. The existing former JCES campus includes administration offices, multiple classrooms, a library, a multipurpose room and food service area, and the Malibu Boys and Girls Club. None of the structures on the former JCES campus are considered historic resources. Refer to Section 5.4, *Cultural Resources*, for a detailed description of cultural resources.

The MMHS campus operates as a sixth- through twelfth-grade public school with 60 classrooms (including 12 portable classrooms); a library, auditorium, kitchen and food service area, and administrative offices; athletic fields, two gymnasiums and locker rooms, a pool, nine basketball courts, four tennis courts, a field house for equipment storage, and the Malibu Boys and Girls Club; and parking for 282 vehicles in three parking lots, a bus barn, and a maintenance and operation warehouse. None of the structures on the MMHS campus are considered historic resources.

The Project Site is set amongst rolling hills, with buildings and athletic fields on four terraces set into the hillside, each on a slightly higher elevation. While not designated by the District or MMHS as such, these terraces have been assigned names and are identified in this EIR for descriptive purposes. Figure 5.1-1, *Location of Terraces,* depicts the orientation of the terraces. Terrace A, located at street level (Morning View Drive), contains the existing JCES administration building, four classroom buildings, library building, and multipurpose room building. Terrace A contains the MMHS administration/library/classroom building, as well as an outdoor

courtyard, cafeteria, and auditorium. Terrace B contains the new and old gymnasiums, outdoor basketball courts and swimming pool, the Boys and Girls Club of Malibu facility, and former JCES portables and parking lot. Terrace C contains the former JCES parking lot and MMHS football field and track and Terrace D contains the tennis courts and baseball diamonds. Each terrace is accessible via stairs and handicap-accessible ramps. From street level along Morning View Drive, views of the elevated terraces are limited. Maximum topographic relief on-site is approximately 90 feet, with elevations ranging from 90 to 185 feet above mean sea level (amsl). The split-level configuration of the campus serves to blend development with the existing terrain of the Project Site and the surrounding area.

Development on Terrace A is setback from Morning View Drive by street trees, a landscaped sidewalk, the lower parking lot, and a paved parking area in front of the main entrance to campus. No other terraces are situated adjacent to public roadways, with the exception of Terrace D located at the base of the Clover Heights Avenue cul-de-sac. The main entrance of the former JCES campus features a ramp, parking lot, iron fencing, and the administration building. The administration building is a single-story Modern architectural-style building covered with smooth stucco siding and a flat roof. The main entrance to the MMHS campus features a wide, low stairway, and a covered walkway with several tall, thin supporting columns. The landscaping consists of trees and bushes in low brick planters situated on either side of the entrance to the campus. The building façade, as seen from Morning View Drive and other publicly available vantage points alternates between flat beige stucco walls and flat brick walls, with blue trims and accents, bands of windows, flat roofs, and covered walkways. There are several flat grass areas between buildings. Figures 5.1-2a and 5.1-2b, *Site Photographs*, illustrate the appearance of existing development on campus and depict the different elevations on which the buildings are situated. On the approach to the campus from Morning View Drive going north, the dominant visual feature is the lower parking lot, and a covered stairway leading to the campus between the existing Library and Administration Building and Building E. Building E is set into a vegetated slope and features the same design elements as the main entrance to campus.

The natural terrain of the area consists of rolling hills, vegetated with typical California Mediterranean landscape and the ravine associated with the ESHA that forms the northern boundary of the Project Site. No distinct natural landforms are located on the Project Site. Although the Project Site is considered rural, there is limited natural and/or undisturbed vegetation on-site due to existing development. Landscape on the Project Site, and the surrounding SMMUSD land, consists primarily of grasses, ivy, brush, shrubs, scattered trees, and landscape screening. Some varied trees and vegetation are located in the ESHA, as described in detail in Section 5.3, *Biological Resources*.

From the elevated terraces, the Project Site and the surrounding residential development has limited background views of the Pacific Ocean to the south and the Santa Monica Mountains to the north. However, foreground and midground views consist largely of nearby ridges, hillsides, tree cover, vegetation, and residential development that often obstruct or limit views of these scenic resources visible in the background.

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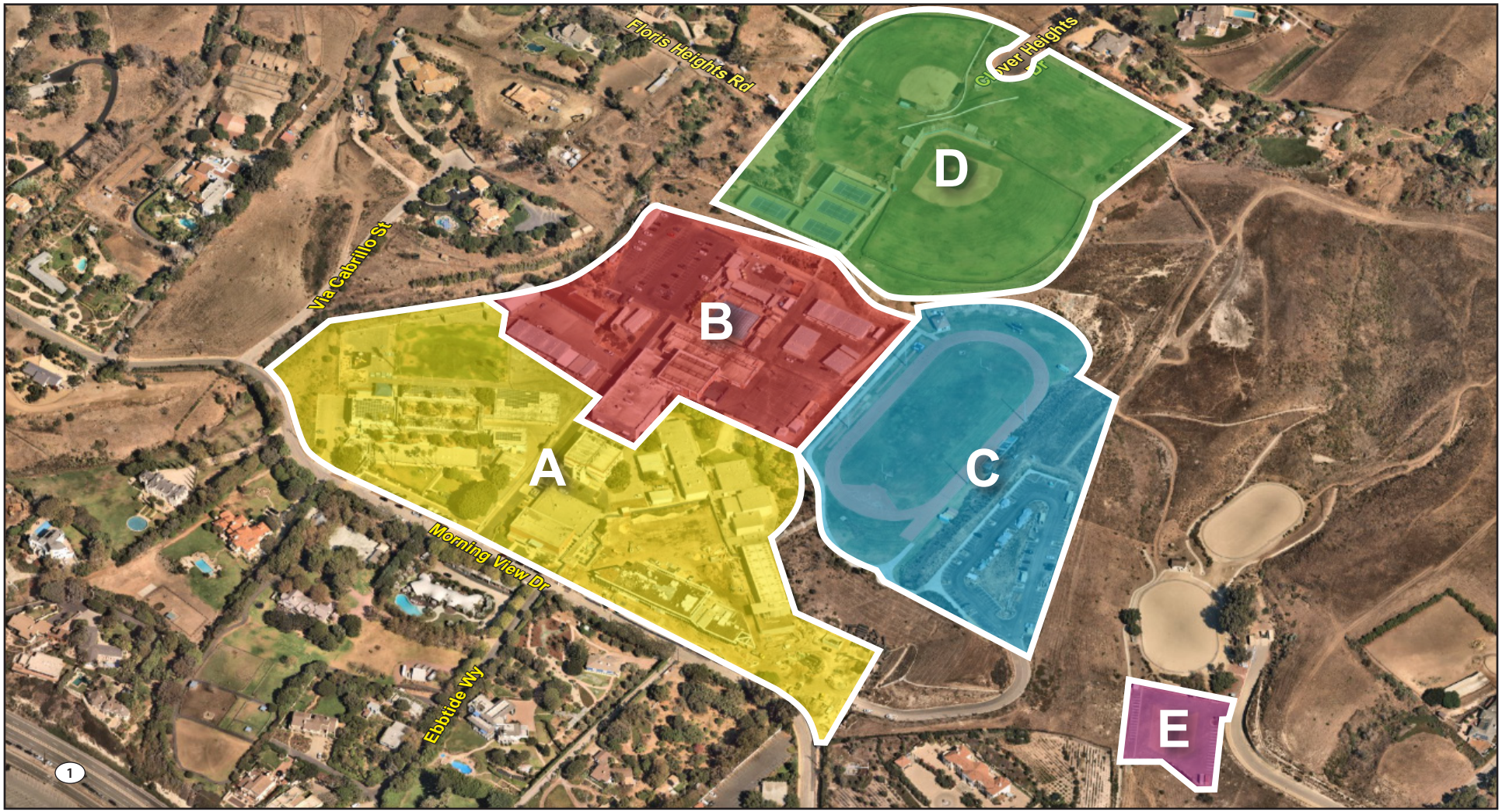
Figure 5.1-1 Location of Terraces



NO SCALE

Source: ATKINS

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Figure 5.1-2a Site Photographs

Photo 1. View of the Project Site from Terrace A looking northeast from Morning View Drive just north of Ebbtide Way.

Photo 2. View of Terrace A (former JCES) looking northeast from Morning View Drive.

Source: PlaceWorks, 2021

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Figure 5.1-2b Site Photographs

Photo 3. View of Terrace D (baseball field), looking south.

Photo 4. View of Terrace A (MMHS) from the Edge of Terrace B looking south.

Source: PlaceWorks, 2021; Figure 4: LPA, 2021

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Scenic Vistas and Visual Resources

The City of Malibu's General Plan Conservation Element defines scenic resources as natural features of the landscape, which exhibit a high scenic value. These scenic resources include landforms, vegetation, and water forms that provide visual enhancement and pleasure and are worthy of preservation for aesthetics, historical, topographical, cultural, and biological reasons. Due to the City's location in a Coastal Zone, the City of Malibu is subject to provisions of the CCA relating to scenic and visual resources. As required by § 30251 of the CCA, scenic and visual resources are to be preserved and protected, and views of these resources are to be protected from public viewing locations.

Scenic resources in Malibu are associated with the dramatic topography and natural landscape features of the area, which includes steep coastal bluffs, hills, rugged slopes, ridgelines, and dense native vegetation that typify the California Mediterranean landscape, as well as beaches, and the Pacific Ocean. These scenic resources are visible from many vantage points. High visibility of these resources can be attributed to the sloping terrain of the area, which slopes towards the ocean providing expansive views from most elevations, and the low to moderate density of development. Places on public roads, trails, parklands, and beaches that offer scenic vistas are considered public viewing areas.

The City of Malibu's General Plan Conservation Element identifies 22 scenic resources and 5 designated vista points in the city and surrounding area. Figure 5.1-3, *General Plan Scenic Resources,* identifies the locations of these scenic resources. Designated scenic resources visible from the Project Site are limited to intermittent background views of the vegetated slopes of the Santa Monica Mountains and the Pacific Ocean, which is also visible from a number of vantage points both on and in the vicinity of the Project Site. No identified scenic resources, as defined by the City of Malibu's General Plan Conservation Element, are located within or adjacent to the Project Site, as shown in Figure 5.1-3. No designated vista points in the city provide views of the Project Site. However, the City of Malibu's LCP considers places along, within, or visible from public scenic roads, trails, beaches, parklands, and state waters that offer scenic vistas of the beach and ocean, coastline, mountains, canyons, and other unique natural features as scenic areas. As the Project Site is visible from a number of public vantage points that offers views of the ocean and mountains, the Project Site is considered to be within a scenic area.

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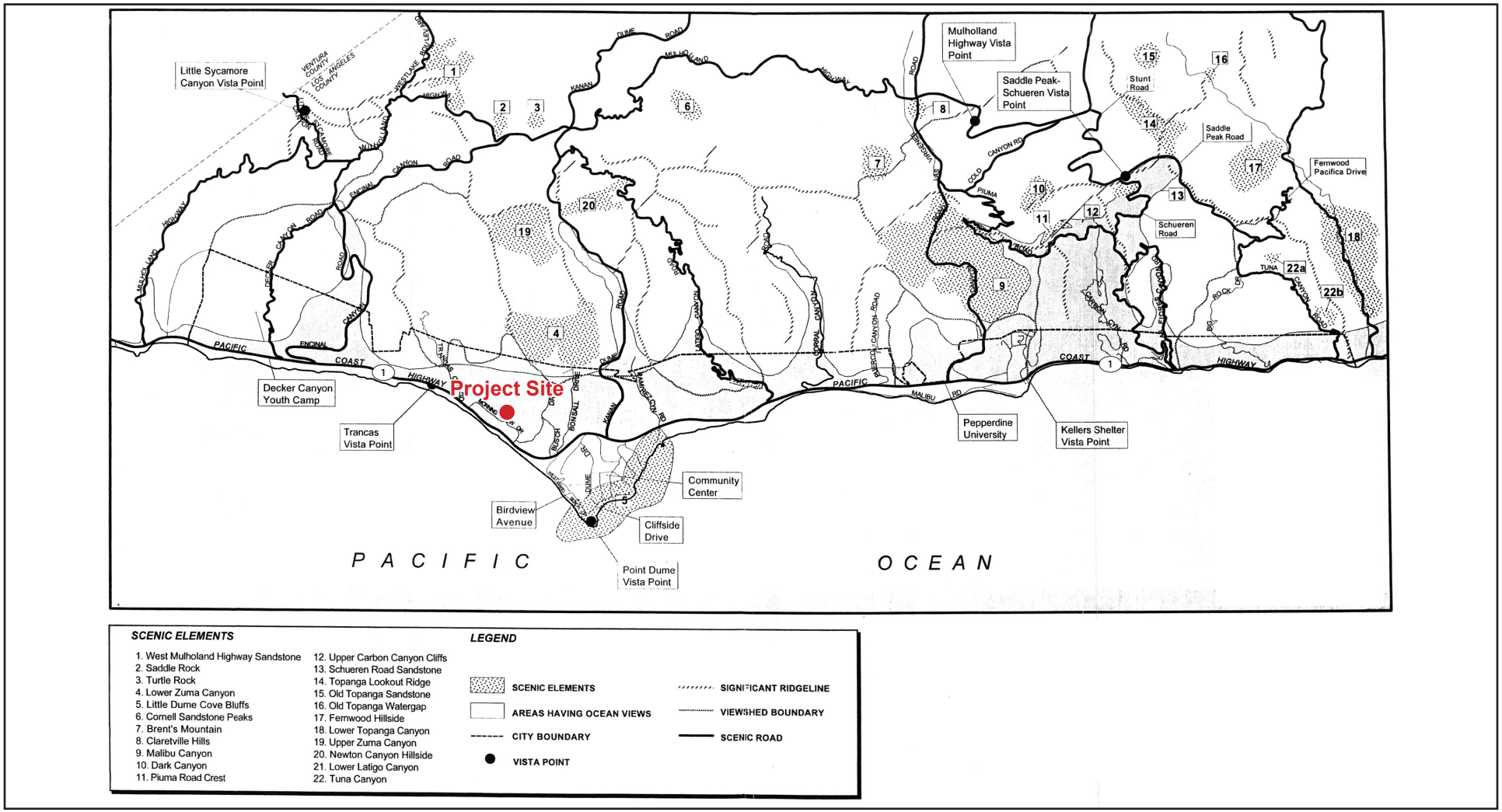
Figure 5.1-3 General Plan Scenic Resources



0 2
Scale (Miles)

Source: Malibu Local Coastal Program, 1986

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Scenic Roads

The closest officially designated state scenic highway is Route 27 (designated in March 2017), approximately 15 miles east from the Project Site. PCH is recognized as an eligible State Scenic Highway by Caltrans but is not officially designated and it is recognized as a Scenic Road by the City of Malibu's LCP (Caltrans 2019) as shown on Figure 5.1-3. PCH extends the length of the city along the ocean and is the primary access road to the city. PCH is located 0.25-mile south of the Project Site. Due to the orientation of the perpendicular road, the terrain, and development, views of the developed portion of the Project Site from the intersection of PCH and Morning View Drive are limited to a channelized view of the undeveloped ridge between the MMHS campus and the Equestrian Center. From all other locations along PCH, views of the Project Site do not exist. The City of Malibu's LCP considers existing public roads where there are views of the ocean and other scenic areas as Scenic Roads. A number of roads within the city are specifically called out under LUP Policy 6.3 of the City of Malibu's LCP as scenic roads; however, with the exception of PCH, none of these roads afford views of the Project Site.

Existing Views

Due to topography of the surrounding area, views vary by vantage point, but typically share high-quality common views of the Pacific Ocean and the Santa Monica Mountains. Views to and from the Project Site are often affected by the deep coastal fog that regularly sets in from the Pacific Ocean. While some residences are visible from the campus and residents may have views of the Project Site from the sloping terrain, dense vegetation, and screening, views of nearby development are commonly obstructed or limited to rooftops and are often blended with the natural landscape and terrain. However, from the Equestrian School Trail that traverses the ridge providing public trail access between Morning View Drive and the Clover Heights Avenue cul de sac, views are available. These views include disturbed overgrown coastal scrub brush in the foreground; development including MMHS buildings, athletic fields, and parking facilities, the Equestrian Center, and dense tree cover and vegetation in the midground; and views of the Pacific Ocean and the Santa Monica Mountains in the background. Residential uses surrounding the Project Site have similar views to those described for the Equestrian School Trail. Views of the campus from residential development and roadways in higher elevations consist of limited views of the upper levels of campus, including the athletic fields, athletic field light poles, parking lot light poles, and gymnasiums. Views of school development along Morning View Drive are not available from higher elevations because of the terrain.

Views of the Project Site from Public Locations

Public viewing points, identified in Figure 5.1-4, *Daytime and Nighttime Public Viewing Point Locations*, were chosen as a representative sample of views of the Project Site from surrounding uses and the broader Project vicinity. Public roads and beaches with views of scenic areas were selected because views from these locations are protected by provisions of the CCA and the City of Malibu's LCP. Views from private residences are not protected views under CEQA or the Coastal Act and are not described here. Views of the Project Site from public roadways in the vicinity of the Project Site are identified in Figure 5.1-4. The views from each of these public viewing points are described here and are captured in Figures 5.1-5a, *Daytime Public Viewing Points 1 and 2*, through Figure 5.1-5e,*Daytime Public Viewing Point 9*. These views were selected based on the angles of public

viewing locations presented in the 2011 *Malibu Middle and High School Campus Improvement Project EIR*, public comments received during the scoping process, and consideration of the goals and policies set forth in the City's General Plan and LCP.

Public Viewing Point 1

Public Viewing Point 1 was taken near the intersection of Merritt Drive and Busch Drive looking west towards the Project Site. The view consists of undeveloped District-owned land, the ridge that separates the campus from the Equestrian Center. The Pacific Ocean is not visible from this location. Topography prevents views of the school from nearby residential uses. Very limited views of the school's rooftops and palm trees along the northwest border of the MMHS can be visible from this location just over the ridge.

Public Viewing Point 2

This public viewing point illustrates the view from further south along Merritt Drive near the entrance to the Malibu Equestrian Center looking northwest across the Malibu Equestrian Center towards the Project Site. The Malibu Equestrian Center facilities are out of sight in this photo because of its location in a topographically low point created by low hills. No campus buildings can be seen from this location. The distant light poles from Parking Lot E and distant palm trees are the only indication that the Campus is beyond the ridge.

Public Viewing Point 3

Public Viewing Point 3 is from the southern approach to MMHS campus looking north from Morning View Drive. Foreground views consist of Morning View Drive, the newly constructed Building A/B and its parking lot, sidewalks, utility power pole and lines, and landscaping. The existing gymnasium building can be seen behind Building A/B. Background views are of residential hillside development and the Santa Monica Mountains. As is common in this area, the dominance of vegetation and sloping terrain often disguises the nature of uses and serves to blend development into the natural environment.

Public Viewing Point 4

Public Viewing Point 4 was near the intersection of Via Cabrillo Street and Morning View Drive looking southeast towards the former JCES campus entrance. This view illustrates the western approach to the former JCES campus. Foreground views consist of Morning View Drive, utility pole and lines, sidewalks along the northern portion of Morning View Drive, and dense coastal vegetation. Background views are of landscaping, palm trees, and limited views of the rooftop of the former JCES buildings. Due to the presence of vegetation along Morning View Drive and Via Cabrillo Street, the developed nature of this roadway and location of the campus in relationship to this viewing point, scenic views are limited and partially obstructed.

Figure 5.1-4 Daytime and Nighttime Public Viewing Point Locations

District Owned Property

Project Boundary

Photo Location and Direction (9)

0 800

Scale (Feet)

Source: Nearmap, 2021

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Figure 5.1-5a Daytime Public Viewing Points 1 and 2

Public Viewing Point 1: View looking southwest from the intersection of Merritt Drive and Busch Drive.

Public Viewing Point 2: View looking northwest from the mid-portion of Merritt Drive across the Malibu Equestrian Center.

Source: LPA, 2021

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Figure 5.1-5b Daytime Public Viewing Points 3 and 4

Public Viewing Point 3: View looking north from the southern approach to MMHS campus along Morning View Drive.

Public Viewing Point 4: View looking southeast from the intersection of Via Cabrillo Street and Morning View Drive towards the former JCES campus entrance.

Source: LPA, 2021

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Public Viewing Point 5

Public Viewing Point 5 was taken from the Clover Heights Avenue cul-de-sac looking southwest towards the campus. Chain-link fencing around the MMHS campus perimeter and ballfields is the dominant foreground feature from this public viewing point. Views of the Pacific Ocean, a scenic resource, is visible on the horizon. The campus's baseball diamond is visible in the mid-ground, with the athletic field and light poles just beyond. Views of the buildings on campus are limited to rooftops, which are partially visible in the left side of the photograph. As evident in this picture, development on the MMHS campus is at a lower elevation than Public Viewing Point 5, and therefore do not reach heights that obstruct background views of the Pacific Ocean.

Public Viewing Point 6

Public Viewing Point 6 was taken near the intersection of Merritt Drive and Harvester Road looking southwest toward the Project Site. The dominant feature from this location is the panoramic view of the Pacific Ocean, which is silhouetted by the northern portion of the ridge located to the southeast of the MMHS campus. The foreground consists of fencing surrounding a private property with landscaping and residence. Portions of the Project Site are visible yet, not discernable in the background. Views of campus building rooftops, sports fields, trees, and light poles are partially visible. As evident in this picture, development on the Project Site is located at a lower elevation than Public Viewing Point 6, and therefore, do not reach heights that obstruct background views of the Pacific Ocean.

Public Viewing Point 7

Public Viewing Point 7 was taken near Zuma Beach near the intersection of PCH and Morning View Drive looking northeast. The dominant features in this view are the distant Santa Monica Mountains and vegetation. Residential development setback from PCH by low vegetated slopes is visible from this public viewing point, as well as roadway infrastructure and utility lines. A narrow view of undeveloped slopes on District property is available looking along Morning View Drive; however, no developed portion of the Project Site is visible from this public viewing point.

Public Viewing Point 8

Public Viewing Point 8 was taken near the intersection of Morning View Drive and Ebbtide Way looking north towards the main entrance of MMHS campus. Foreground views consist of Morning View Drive, sidewalk, chain-link fencing along the perimeter of the MMHS entrance, and a variety of campus buildings. Background views of the Santa Monica Mountains are available.

Public Viewing Point 9

Public Viewing Point 9 represents a distant view of the Project Site and was taken near the cul-de-sac terminus of Horizon Drive looking south towards the Project Site. This location provides a panoramic view of Malibu, the Pacific Ocean, and the unique topography of the area. The Project Site is visible in the middle-ground including campus buildings and sports fields. As evident in this picture, existing development on the Project Site is at a lower elevation than Public Viewing Point 9 and does not reach heights that obstruct background views of the Pacific Ocean.

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Figure 5.1-5c Daytime Public Viewing Points 5 and 6

Public Viewing Point 5: View looking southwest from the Clover Heights Avenue cul-de-sac.

Public Viewing Point 6: View looking southwest from the intersection of Merritt Drive and Harvester Road.

Source: LPA, 2021

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Figure 5.1-5d Daytime Public Viewing Points 7 and 8

Public Viewing Point 7: View looking northeast from Zuma Beach at the intersection of PCH and Morning View Drive.

Public Viewing Point 8: View looking north from the intersection of Morning View Drive and Ebbtide Way.

Source: LPA, 2021

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Figure 5.1-5e Daytime Public Viewing Point 9

Public Viewing Point 9: View looking south from Horizon Drive on the ridge just south of the cul-de-sac.

Source: LPA, 2021

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Light and Glare

The Project Site and the surrounding area currently have a less than average level of nighttime lighting. Artificial light sources found on-site and in the surrounding area include security lights associated with the campus and adjacent residential uses, parking lot lighting associated with the lower parking lot, light emanating from building interiors, an illuminated sign, streetlights along PCH, and automobile headlights. All lighting is designed to provide for the security and safety of students, staff, and visitors. MMHS lighting is currently controlled by separate automatic timers consisting of "security" lighting and "night-time" lighting. Security lighting includes minimal interior and exterior building lights that are programmed on from dusk to dawn to discourage intruders and provide security for students and staff using the campus for authorized off-hour activities. The nighttime lighting includes parking lot, driveway, and pedestrian lighting not essential to building security and is currently programmed off at 11:00 p.m. During periods of the year when school is in session, lighting levels are higher because school building interiors are commonly illuminated, and exterior lights mounted to the school building and parking areas are lit. Field lighting operations are specified in Coast Development Permit No. 12-024 and Conditional Use Permit No. 12-001. Per these permits lighting of the athletic field is authorized as follows:

- No lighting is permitted between June 1 and August 31.
- Lighting is permitted until 7:30 p.m. during Pacific Standard Time (PST) (defined as the first Sunday in November to the second Sunday in March) so long as they are not used for more than 45 nights during PST. Regardless, the maximum allowed lighting per week until 7:30 p.m. or 10:30 p.m. may not exceed three nights per week, combined.
- Lighting is permitted until 10:30 p.m. during PST so long as they are not used for more than 16 nights per year, may not be used until 10:30 p.m. on consecutive (back-to-back) nights, or used until 10:30 p.m. for more than two non-consecutive nights per week. Regardless, the maximum allowed lighting per week until 7:30 p.m. or 10:30 p.m. may not exceed three nights per week, combined.
- Lighting is permitted until 10:30 p.m. outside of PST from September 1 through May 31, subject to the avian monitoring requirements in LIP § 4.6.2(G)(3). Lighting outside of PST would count against the maximum allotment of 16 nights per year until 10:30 p.m. and may not be used until 10:30 p.m. on consecutive (back-to-back) nights or used until 10:30 p.m. for more than two non-consecutive nights per week.
- Lighting shall only be used for school-related practices and games.

During times of the year when school is out of session, mostly the summer and weekends, security lighting remains on, and the nighttime lighting remains off.

Glare generation within the Project vicinity is limited. Building materials in the area generally do not consist of reflective materials, and the abundance of vegetation in the surrounding area and hillsides prevents opportunities for glare resulting from car headlights or other sources of light.

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Figure 5.1-6a, *Nighttime Public Viewing Point 1* through Figure 5.1-6i, *Public Viewing Point 9*, illustrate existing nighttime views from the nine public viewing points. The existing nighttime views capture the campus with stadium lights on and stadium lights off. As shown, except for Public Viewing Points 1, 2, 6 and 7, the Project Site is partly visible at night due to the uneven topography of the surrounding area. With stadium lights on, the Project Site is visible from Public Viewing Areas 1, 2, 3, 4, 6, 8, and 9. With stadium lights off, the Project Site is only visible from Public Viewing Points 3, 4, 5, 8, and 9.

Figure 5.1-6a Nighttime Public Viewing Point 1

Public Viewing Point 1: Stadium Lights On

Public Viewing Point 1: Stadium Lights Off

Source: LPA, 2021

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Figure 5.1-6b Nighttime Public Viewing Point 2

Public Viewing Point 2: Stadium Lights On

Public Viewing Point 2: Stadium Lights Off

Source: LPA, 2021

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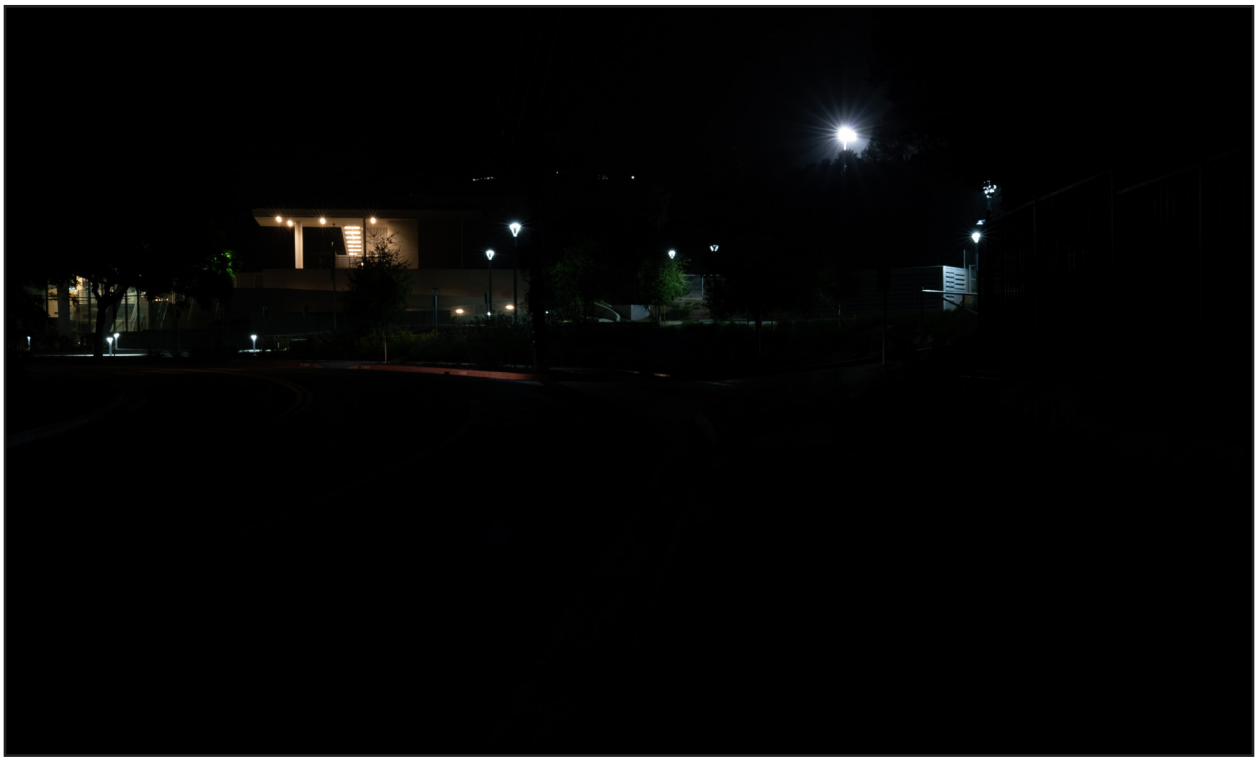
Figure 5.1-6c Nighttime Public Viewing Point 3



Public Viewing Point 3: Stadium Lights On

Public Viewing Point 3: Stadium Lights Off

Source: LPA, 2021

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Figure 5.1-6d Nighttime Public Viewing Point 4

Public Viewing Point 4: Stadium Lights On

Public Viewing Point 4: Stadium Lights Off

Source: LPA, 2021

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Figure 5.1-6e Nighttime Public Viewing Point 5

Public Viewing Point 5: Stadium Lights On

Public Viewing Point 5: Stadium Lights Off

Source: LPA, 2021

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Figure 5.1-6f Nighttime Public Viewing Point 6

Public Viewing Point 6: Stadium Lights On

Public Viewing Point 6: Stadium Lights Off

Source: LPA, 2021

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Figure 5.1-6g Nighttime Public Viewing Point 7

Public Viewing Point 7: Stadium Lights On

Public Viewing Point 7: Stadium Lights Off

Source: LPA, 2021

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Figure 5.1-6h Nighttime Public Viewing Point 8

Public Viewing Point 8: Stadium Lights On

Public Viewing Point 8: Stadium Lights Off

Source: LPA, 2021

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Figure 5.1-6i Nighttime Public Viewing Point 9

Public Viewing Point 9: Stadium Lights On

Public Viewing Point 9: Stadium Lights Off

Source: LPA, 2021

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5.1.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a Project would have a significant effect on the environment if the Project would:

AE-1 Have a substantial adverse effect on a scenic vista.

AE-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

AE-3 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 point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

AE-4 Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

5.1.3 Environmental Impacts

5.1.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.1-1: The Proposed Project would not have a substantial adverse effect on a scenic vista. [Thresholds AE-1 and AE-3]

The Project Site is not located in the viewshed of a designated vista point. The nearest vista point recognized in the City of Malibu's General Plan Conservation Element is the Point Dume Vista Point, which does not afford views of the Project Site or surrounding neighborhood. Other protected scenic vistas in the City of Malibu, according to LUP Policy 6.2, include views of the Pacific Ocean and other scenic areas from public viewing areas, which include public roads, trails, parklands, and beaches, considered to be public viewing areas. Public viewing areas in the vicinity of the Project Site include nearby roads and trails, including Morning View Drive (also a designated trail), Merritt Drive, Busch Drive and Pathway (a roadway and designated trail), Clover Heights Avenue, and nearby trails including the Equestrian School Trail (located on the Project Site), and Busch Pathway. The locations of the selected public viewing areas are shown on Figure 5.1-4.

Views afforded from public viewing areas, located in elevations equal to or greater than the Project Site and to the north and east, which excludes Morning View Drive (because it is at the base of the slope and bound by development), consists mostly of rolling hills, ridgelines, vegetation, structures, and panoramic views of the Pacific Ocean and the Santa Monica Mountains, in the horizon. Distant ridgelines, mountains, and the Pacific Ocean typically dominate views. Partial views of the developed campus on the Project Site are available from a number of public viewing areas to the north of the Project Site that offer scenic vistas of the Pacific Ocean

and mountains. The Project Site is within a scenic area, as defined by LUP Policy 6.4 and is therefore subject to all policies of the LUP related to visual impacts on scenic areas. From most public viewing areas, including most of the nine representative public viewing points described above and shown in Figures 5.1-5a through 5.1-5e, views of development on the Project Site are typically limited to building rooftops or athletic fields. The presence of a low ridge immediately southeast of the Project Site, the undulating hillsides in the area, as well as the intentional split-level design of the campus with buildings terraced down the slope and dense vegetation in surrounding area, allows for the campus to blend in with the natural environment of the area and prevents the obstruction of scenic views. As such, existing development on the Project Site does not currently obstruct or interfere with scenic views of the ocean or the mountains from public viewing areas.

Because of the panoramic and dominant nature of views of the Pacific Ocean and Santa Monica Mountains afforded from public viewing areas, implementation of the Proposed Project would not result in the obstruction of protected scenic vistas; however, several Project components have the potential to alter views of scenic vistas available from nearby public viewing areas. The Project involves a phased replacement of the existing school buildings (with the exception of Buildings A/B and E and athletic fields to remain) with a new Middle School Core, High School Core, and shared amenities. The locations of these Proposed Project components are shown on Figure 3-4, *Proposed Site Plan,* in Chapter 3, *Project Description*. The Campus land uses would be designed in three defined areas: High School Core (Phase 1), Middle School Core, and shared amenities. The proposed plan would consolidate building space, providing for improved wayfinding and student collaboration. The new construction would be integrated into the terraced landscape, consistent with current design. While there would be grading on the Project Site, it would not result in a substantial change in existing elevations. The Project would incorporate design features that are compatible with the surrounding landscape, as specified in the MMHS Site Design Guidelines. Furnishings and fixtures would incorporate natural tones and features such as seating terraced into the hillside, built-in wooden benches, and boulder-shaped seating; hardscape materials would include accent paving and natural tones; walls and fencing would include materials that relate to the architectural form of the campus; and signage would use topography, materials, and form to adapt to the conditions on the project site. Design-level detail for Phase 1 is complete and renderings/photorealistic simulations Phase 1, as well as massing simulations for Phases 2 through 4 are shown in Figures 5.1-7a through 5.1-7e. Phases 2 through 4 would be designed and implemented during later years, with maximum heights, building locations, and massing described below.

Figure 5.1-7a Daytime Visual Simulations of Public Viewing Points 1 and 2

Public Viewing Point 1: View looking southwest from the intersection of Merritt Drive and Busch Drive.

Public Viewing Point 2: View looking northwest from the mid-portion of Merritt Drive across the Malibu Equestrian Center.

Source: LPA, 2021

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Figure 5.1-7b Daytime Visual Simulations of Public Viewing Points 3 and 4

Public Viewing Point 3: View looking northwest from the southern approach to MMHS campus along Morning View Drive.

Public Viewing Point 4: View looking southeast from the intersection of Via Cabrillo Street and Morning View Drive towards the former JCES campus entrance.

Source: LPA, 2021

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Figure 5.1-7c Daytime Visual Simulations of Public Viewing Points 5 and 6

Public Viewing Point 5: View looking southwest from the Clover Heights Avenue cul-de-sac.

Public Viewing Point 6: View looking southwest from the intersection of Merritt Drive and Harvester Road.

Source: LPA, 2021

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Figure 5.1-7d Daytime Visual Simulations of Public Viewing Points 7 and 8

Public Viewing Point 7: View looking northeast from Zuma Beach at the intersection of PCH and Morning View Drive.

Public Viewing Point 8: View looking north from the intersection of Morning View Drive and Ebbtide Way.

Source: LPA, 2021

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Figure 5.1-7e Daytime Visual Simulations of Public Viewing Point 9

Public Viewing Point 9: View looking south from Horizon Drive on the ridge just south of the cul-de-sac.

Source: LPA, 2021

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The High School Core would be developed as Phase 1, with the exception of Building J, at the southwestern portion of the campus occupying the former JCES campus on Terrace A. The High School Core development would consist of two new buildings, Building C (classrooms, administrative) and Building J (gymnasium) on Terraces A and B. These new buildings would replace the existing 11 JCES buildings that would be removed. Building C would be two stories and would be designed to fit the natural topography of the site, such that the southern portion of the building fronting and visible from Morning View Drive would have a maximum height of 36 feet above grade. The required exhaust hoods for the science classes extend another 10 feet above the main roof, which is 4 feet above the parapet for a height of 41 feet; however, the exhaust hoods are near the center of the roof area and would not be visible from Morning View Drive, as illustrated in Figure 5.1-7b.

The new Middle School Core would be developed in Phase 2 and be located at the southeastern portion of the campus (Terrace A, as shown on Figure 5.1-1) with a level academic quad in the middle. The Middle School Core would consist of four buildings, including the existing Building E and Buildings A/B. Building D would include a new middle school gym, student activities, and Food Services. It would have a maximum height of 36 feet above grade to meet the National Federation of State High School Association (NFHS) minimum interior height requirement of 23 feet clear from floor to ceiling necessary for competitive volleyball. Upon completion, the Middle School Core would result in 71,206 square feet of total development. Building D would be located to the north and northwest of Buildings A/B (visibly behind), along the northern edge of the Middle School campus. The student activities and food services portion of Building D would be two stories and 5,444 square feet and would have a maximum height of 36 feet along the northern boundary.

Building J, developed in Phase 3, would be in the center of the campus adjacent to the existing hardcourts. Building J would have a maximum height of 45 feet and would contain high bay/ high volume spaces to house the gymnasium. New Buildings L and M would be developed in Phase 3, on Terraces B and D respectively, for shared uses on the Project Site. Parking lots E and F would be developed in Phase 3 on Terrace B west of the hardcourts and play field. Building L (aquatics center) would be located north of the Middle School and High School Cores and west of the existing Main Sports Field on Terrace B. Building M (upper field house) would be located north of the tennis courts in Terrace D. As part of Phase 4, new Building H (performing arts center) and Building I (special education and campus wellness center) would be developed on Terrace B, and a new bus barn would be developed south of the Equestrian Park on Terrace E. Building H would have a maximum height of 45 feet above grade. Buildings I, L, and M would be a maximum of 28 feet above grade.

Visual simulations, included as Figures 5.1-7a through 5.1-7e, *Daytime Visual Simulations of Public Viewing Points 1 through 9*), were prepared from each of the nine public viewing points to illustrate how implementation of the Proposed Project would not obstruct or degrade scenic views but would slightly alter views as a result of the new buildings' massing and height that is slightly greater than existing conditions. Views of the Pacific Ocean, mountains, and other scenic features such as ridges, hillsides, and vegetation would continue to be widely available from all selected public viewing points, consistent with § 30251 of the CCA, which requires that all new development be sited to preserve views of scenic resources.

Buildings C, D, H, and J would be 36 feet on average, with the science lab hood ventilation equipment for the science classrooms extending to 40 feet. These building heights would exceed the LCP and City's 28-foot height requirements. Building C would be constructed as part of Phase 1 and would be set back from Morning View

Drive further than the existing JCES administration and multipurpose buildings by a lawn, parking lot, and internal access roadway. The former MMHS Building H would be replaced with a parking lot. Building C would exceed the maximum allowable height permitted under LUP Policy 6.7; however, the Proposed Project's maximum height can be increased with an approved site plan review. To lessen the visual impact of the massing, the building would conform to the slope of the street along Morning View Drive, and would be terraced like the existing topography, to integrate the building with the landscape. As previously discussed, Morning View Drive does not afford substantial scenic vistas because of its location at the base of slope. As such, the proposed building heights would not affect scenic views from Morning View Drive (Public Viewing Points 4 and 8). A depiction of Building C is shown in Figure 5.1-7b, *Daytime Visual Simulations of Public Viewing Points 3 and 4*. Buildings D, H, and J are internal to the Project Site and are not located along a public roadway. These buildings would also be terraced like the existing topography to integrate buildings with the landscape. Although the proposed building would exceed the maximum allowable building height, the building height would not interfere with protected views of the ocean, mountains, and other scenic resources available from public viewing areas, similar to existing conditions. This is because the sloped terrain and the distance of public viewing areas from the proposed building allows for views well beyond the proposed building.

Views from Public Viewing Points 1, 2, 5, 6, 7, and 9 would be slightly altered, as the new buildings would be taller; however, because of the expansive nature of the available views and the presence of residential structures and vegetation through the area, structures associated with the existing campus and the proposed redeveloped campus on the Project Site is not a dominant feature of these viewsheds. The dominant feature in Public Viewing Points 1, 2, 5, 6, and 9 are the rolling hills, Santa Monica Mountains, and Pacific Ocean. Additionally, the Proposed Project would adhere to design standards of the MMHS Campus Site Design Guidelines to incorporate colors and exterior materials that are compatible with the surrounding landscape. For instance, furnishings and fixtures would be incorporate natural tones and features such as seating terraced into the hillside, built-in wooden benches, boulder-shaped seating; hardscape materials would include accent paving, natural tones; walls and fencing would include materials that relate to the architectural form of the proposed Campus; signage would use topography, materials, and form to adapt to the conditions on the project site; landscape design would incorporate native or locally adapted drought-tolerant species to play a functional role such as framing views. With compliance to applicable policies of the LUP, development of the Proposed Project would not degrade or obstruct scenic vistas available from public viewing areas.

In consideration of the details provided regarding the availability of views of scenic resources from public viewing areas with implementation of the Proposed Project, construction of the Proposed Project would not significantly obstruct or otherwise degrade scenic vistas, that consist of views of scenic resources, including the ocean, mountains, ridges, hills, and vegetation from public viewing areas. Compliance with all applicable policies contained in the LUP, including those listed above, and Project design features such as the building design, building materials, and landscape plan, would ensure that the Proposed Project would not significantly degrade the quality of scenic vistas currently available from public viewing areas. As such, impacts to scenic vistas is considered **less than significant**, as the Proposed Project would result in the slight alteration of the existing scenic views but would not obstruct or degrade protected views.

Impact 5.1-2: The Proposed Project would not alter scenic resources within a state scenic highway. [Threshold AE-2]

The Project Site is not within the viewshed or corridor of a state-designated scenic highway. The only road in Malibu that has been officially designated as an eligible scenic highway by Caltrans is PCH, located 0.25-mile southwest of the Project Site. Although primary access to Morning View Drive is from PCH, no views of the developed portions of the Project Site are available from PCH (see Figure 5.1-7d). A limited channelized view of the 150-space Parking Lot E is available from the intersection of Morning View Drive and PCH intersection; however, this view is not part of the viewshed visible to motorists while driving on PCH. No other views of the Project Site are available from PCH because of the presence of low bluffs and hillsides that screen views into the canyon. Signage for the school is positioned on Morning View Drive at PCH and would remain with implementation of the Proposed Project. Morning View Drive has been designated by the City of Malibu as a neighborhood trail but has not been classified as a scenic highway and is not subject to regulations and policies relating to scenic highways.

None of the 22 scenic resources identified in the City of Malibu's General Plan Conservation Element are located on or near the Project Site, as shown in Figure 5.1-3, *General Plan Scenic Resources*. No scenic resources, as defined by the City of Malibu's General Plan Conservation Element, are located on or near to the Project Site. As such, the Proposed Project does not have the potential to substantially damage a scenic resource within the viewshed of a State-designated scenic highway, or any other identified scenic resource, and **no impact** would occur.

Impact 5.1-3: The Proposed Project would not substantially degrade the existing visual character or quality of public views of the Project Site and its surroundings. [Threshold AE-3]

The existing visual character of the Project Site is of a school campus in a rural residential neighborhood. Existing development on campus is on several split-level building pads in order to retain the natural topography of the area. The distribution of existing development along the hillside and complementary design elements, such as brick façades and blue trims and accents, coupled with the abundance of vegetation both native and non-native, and the scenic resources on the Project Site and surrounding areas contribute to a high visual quality on and around the Project Site. Development on campus is most visible from Morning View Drive, where the main entrance to campus is located. As such, changes in the visual character of the campus would be most evident from the perspective of Morning View Drive. Views of the campus from other nearby vantage points consist primarily of building outlines and rooftops. Proposed new development on campus that has the potential to alter or degrade the visual character or quality of the Project Site and surrounding area due to the increased height and massing of Buildings C, D, H, and J as compared to current conditions.

As the Project Site is already developed with campus uses along Morning View Drive, the redevelopment of existing buildings and parking lots with new buildings of similar use in approximately the same location would not result in a substantial change in the visual character of the area. While the building heights would exceed the maximum permitted height of 28 feet above grade, as stipulated in LUP Policy 6.7, the new buildings would conform to the slopes and would be terraced like the existing topography, in order to integrate the buildings with the landscape.

The proposed new buildings would be of quality design and would incorporate design features such as colors and exterior materials that are compatible with the surrounding landscape, as specified in the District's Design Guidelines.

As part of Phase 1, the new high school building would include a series of educational program 'sets' under a single unifying roof to create a large, covered porch that would serve as an informal indoor/outdoor learning environment that takes full advantage of the unique hillside setting and Malibu climate. The roof maximizes the potential for solar collection, provides passive shading of the building facades and provides a superstructure for the installation and display of student projects and experiments. A series of solid planes that extend out into the landscape tie the building seamlessly into the Project Site and also frame distant views out towards the hillside, Pacific Ocean, and the middle school campus beyond. A natural material palette of concrete, weathered metals, glass, and natural timbers would give durability while maintaining a warm and informal feel. As the naturally landscaped areas surround it grow the building would weather and feel synthetic with the Project Site.

A landscaping plan prepared for the Proposed Project required by LUP Policy 6.29 identifies a range of native planting that would be incorporated throughout the campus. Landscaping would be provided along pathways, building perimeters, and within and around new parking lot areas and the landscaping palette would be in accordance with the City's landscaping standards. All buildings along Morning View Drive would be set back further than the existing conditions by a lawn, parking lot, and internal access roadway, which would also be landscaped. This setback area would be considered a community gateway. The design of the access roads would be consistent with LUP Policy 6.11, which requires the road follow the natural topography and be a neutral color that blends with the surrounding landforms and vegetation. Incorporation of these design features would ensure that the development of the proposed parking lots and access road would alter but not significantly degrade the visual character and quality of the surrounding area.

Development of the Proposed Project would be subject to the policies contained in the City of Malibu's LUP. Compliance with these policies, as listed above, would ensure that implementation of the Proposed Project would not result in the significant degradation of the visual character and quality of the Project Site and surrounding area. As such, the Proposed Project would result in a **less-than-significant impact** with respect to visual character and quality.

Impact 5.1-4: The Proposed Project could create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. [Threshold AE-4]

Sky glow is the light that "spills" into the sky above the horizon and illuminates the moisture and other tiny particles in the atmosphere. The introduction of sky glow would be considered a significant impact if it were a permanent addition to the environment. In the case of the Proposed Project, a significant impact could occur if the replaced campus and parking lot lighting were uncontrolled and would significantly increase sky glow. Control features are available on the light sources to reduce sky glow and glare from nighttime lighting. These control features direct light downward, thereby reducing the spill of light that causes sky glow and reducing glare.

Light trespass is the light that falls beyond the property it is located on. Typically, light trespass is from a more "horizontal" source, such as streetlights and way-finding/security lighting than sky glow, which emanates from a more vertical source into the atmosphere. A significant light trespass impact would occur if the Proposed Project lighting would exceed 0.1 foot-candles onto a residential property, ESHA, ESHA buffer, Pacific Ocean, beaches, and public viewing areas. A significant light trespass impact would occur if the Proposed Project lighting would exceed 0.25 foot-candles onto a non-residential property.

Glare refers to the sensation we experience when looking into an excessively bright light source that causes a reduction in the ability to see or causes discomfort to the eye. Glare is commonly experienced when driving into a sunrise or sunset, or when approaching an oncoming vehicle using their high beam headlights at night. Glare, and the perception of glare, varies on a number of factors, including source brightness, the contrast between the brightness of the glare source and the brightness of the surrounding environment, and size/location of the glare source. Glare created by lighting systems can be measured for impairment of view. A typical example of glare effects is the car headlight. When viewed directly in front of a vehicle with the headlights on full beam, vision is impaired, resulting in disabling glare. However, when viewed from the side, the same headlights would not impair vision. Outdoor lighting fixtures that have adjustable dimmers with color temperature that exceeds 3,000 Kelvin shall be dimmed to comply with § 17.41.050(G) of the City of Malibu Dark Sky Ordinance to minimize glare and light trespass onto adjacent properties. Under the Proposed Project, glare could be anticipated in three primary scenarios: use of campus lighting, marquee, and daytime reflection off building surfaces.

The Proposed Project would occur on the currently developed former JCES and MMHS campuses, in an area visually characterized as a rural residential neighborhood. Artificial light sources found on-site and in the surrounding area include lighting on the lower parking lot (existing Parking Lot D) adjacent to Building A/B, exterior safety and security lighting associated with the campus and adjacent residential uses, light emanating from on- and off-site building interiors, streetlights along PCH, and automobile headlights. There are no streetlights on adjacent nearby roadways, including Morning View Drive, Merritt Drive, Via Cabrillo Avenue, and Clover Heights Avenue. Light originating from the Project Site accounts for the majority of the nighttime lighting in the area. However, nighttime lighting levels in the surrounding area vary dependent on the time of night and the school calendar. On weekdays when school is in session, lighting levels in the early hours of the evening, before "night" lighting is automatically shut-off at 11:00 p.m., are higher because existing parking areas, driveways, and pedestrian pathways are lit, school building interiors may be illuminated, and "security" lighting is on. However, "night" lighting, which includes parking lot and driveway lighting, are automatically shut off at 11:00 p.m. on school days, and only minimal security lighting remains on throughout the nighttime hours. When school is out of session, primarily weekends and summers, only required security lighting is lit.

Due to the rural nature of the surrounding area, and the absence of streetlights, lighting levels in the vicinity of the Project Site are well below average for typical residential areas.

The Proposed Project includes the following general main light/glare sources: exterior building security lighting, parking lot lighting for new parking lots, marquee/sign lighting, bus barn lighting, pool lighting, and photovoltaic (PV) solar panels. The Proposed Project would not change or modify the restrictions imposed on the Athletic Field lighting (CDP 12-024), or the lighting associated with the 150-space Parking Lot A under the

existing CDP (CDP No. A-MAL-13-030). Consistent with existing conditions, on the limited number of occasions when school activities are scheduled to extend past 10:00 p.m., such as an MMHS sports teams returning to campus following an "away" game, or when a SMMUSD School Board meeting is held on campus, the programmed lights off time would be overridden to accommodate such authorized uses.

The outdoor lighting program, including pathway/walkway lighting, marquee/sign lighting, and exterior security building lighting, throughout the Project Site is required to comply with the City of Malibu Dark Sky Ordinance for Lighting Zone 1 (LZ1) by modeling and providing photometrics, and calculation tables for total site lumen limit, limits to off-site impacts, and light shielding for parking lot illumination. Proposed exterior luminaries would consist of low-intensity, full cut-off shielded light fixtures that maintain safe light levels while avoiding off-site lighting and night sky pollution, as required by the MMHS Design Standards and the City of Malibu Dark Sky Ordinance.

All new parking light fixtures would have a maximum height of 18 feet and would also be City of Malibu Dark Sky Ordinance compliant. All parking lot lighting would be directed towards the interior of the parking lot, pointing downwards toward the ground and would adhere to the City of Malibu Dark Sky Ordinance.

Two new electronic marquee signs that are 16 feet 3 inches wide by 8 feet tall, with 10-foot by 4-foot LED display screens, would be added at the middle and high schools. While electronic message center signs are not in conformance with the City's LIP, the marquee signs would have design features to reduce light and glare, such as gradual brightness reduction in day and night modes and would be set back from sensitive receptors. The marquee signs would be designed to meet the requirements of the City of Malibu Dark Sky Ordinance.

The Project also includes replacement and upgrading of the existing 25-meter pool with a new Olympic-sized 50-meter pool. Consistent with the existing use, the pool would be lit an annual total of 524 hours as detailed below in Table 5.1-1, *Pool Lighting*. Pool lighting would meet the established standards set forth in the Lighting Handbook: Reference and Application (Illuminating Engineering Society of North America (IESNA), 10th Edition). As stated by IESNA, pool illuminance levels must serve the needs of swimmers, divers, lifeguards, instructors, and spectators. Lighting recommendations for a pool with the intended uses of water polo (known as a Class II facility) are that lighting is a minimum of 30 foot candles over the pool and 20 foot candles over the deck, as measured at the water level (IESNA 2011). This is less than other reference documents such as the National Federation of State High School Associations (NFHS), which recommends 100 foot candles minimum (NFHS 2018). Consistent with IESNA recommendations, lighting would also be provided within the pool basin, with the recommended luminance of 15 candelas per square foot (161 candelas per square meter). By meeting the standards of the IESNA, the pool lighting would also meet the requirements of the California Building Code (CBC) § 3115B.1, which requires a pool have underwater and deck lighting such that lifeguards or other persons may observe, without interference of glare, every part of the underwater area, pool surface, and any diving appurtenances.

Table 5.1-1 Pool Lighting

Months	Days Lit	Times
July 1 – August 18	No Lights	-
August 19 – November 6	Monday – Friday (53 school days)	6:15pm – 8:45pm (132.5 hours total over this time period)
November 7 – March 12	Monday – Friday (74 school days)	5:15pm – 8:45pm (259 hours total over this time period)
March 13 – June 10	Monday – Friday (53 school days)	6:15pm – 8:45pm (132.5 hours total over this time period)
June 11 – June 30	No Lights	-

Source: SMMUSD 2021

Lighting measurements were taken at the pool to assess the current nighttime pool light conditions, which meet the CBC requirements and include pool deck and in-water lighting. Light meter reading locations were set around the pool deck, adjacent to the pool, and around outer limits of the pool area with all lights on. Tables 5.1-2 through 5.1-4 show the pool lighting horizontal and vertical meter readings in foot candles. As demonstrated in these readings, pool lighting dissipates from the immediate pool area very quickly, and at a distance of approximately 180 feet is 0.1 foot candles. Given the distance to sensitive receptors (approximately 370 feet away), light spill to offsite receptors is expected to be less than significant. However, it is likely that this upgraded required lighting system exceed the City of Malibu Dark Sky Ordinance. Therefore, impacts related to inconsistency with the City of Malibu Dark Sky Ordinance are considered to be **potentially significant.**

Table 5.1-2 Pool Lighting Meter Readings at the Pool Deck (Pool-Adjacent)

Location	Horizontal[1]	Vertical[1]
1	0.9	0.3
2	0.9	0.3
3	0.5	0.3
4	0.7	0.2
5	0.4	0.2
6	0.6	0.4
7	0.7	0.4
8	0.5	0.4
9	0.3	0.3
10	0.2	0.3
11	0.2	0.2
12	0.2	0.4
13	0.4	0.4
14	0.6	0.4
15	0.5	0.4
16	0.4	0.4
17	0.6	0.3
18	0.5	0.3
19	0.6	0.4
20	0.8	0.4

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Table 5.1-2 Pool Lighting Meter Readings at the Pool Deck (Pool-Adjacent)

Location	Horizontal[1]	Vertical[1]
21	0.8	0.3
22	0.6	0.4
23	0.2	0.3
24	0.2	0.2
25	0.3	0.3
26	0.5	0.4

Source: PlaceWorks 2021
Notes:
[1]. All readings are in foot candles

Table 5.1-3 Pool Lighting Meter Readings Outside Immediate Pool Area (15 to 50 feet from Pool)

Location	Horizontal[1]	Vertical[1]
1	0.4	0.6
2	0	0.2
3	0	0.2
4	0	0.1
5	0	0.1
6	0	0.1
7	0	0.2
8	0	0.2
9	0	0.2
10	0	0.1
11-26	0	0
27	1.2	1.2
28-36	0	0
37	0	0.1
38	0	0.1
39	0	0.1
40	0	0.1
41	0	0.1
42	0	0.1
43	0	0.1
44	0	0.1
45	0	0.1
46	0	0.2
47	0.1	0.4
48	1.8	0.6
49	7.9	0.6
50	1.0	0.4
51	0.8	0.5
52	0.2	0.1
53	0	0.9
54	0	0

Table 5.1-3 Pool Lighting Meter Readings Outside Immediate Pool Area (15 to 50 feet from Pool)

Location	Horizontal[1]	Vertical[1]
55	0.6	0.3
56	0.4	0.3
57	1.4	0.9
58	0.6	0.6
59	1.3	0.2

Source: PlaceWorks 2021
1. All readings are in foot-candles

Table 5.1-4 Pool Lighting Meter Readings Outside Pool Area (60 to 200 feet from Pool)

Location	Horizontal[1]	Vertical[1]
1-18	0	0
19	0	0.1
20	0	0.1
421	0	0.1
22-55	0	0

Source: PlaceWorks 2021
1. All readings are in foot-candles

Glare can also result from daytime reflection of sunlight off building surfaces. PV panels would be installed on the undeveloped sloping hillside to the south of the existing Lot A and the main sports field and to the north/northwest of the new Middle School Building E (core classrooms building). PV panels can be reflective; however, the dark surfaces of the panels, the panel angle, and the existing and proposed landscaping, which would serve as a buffer, would reduce any intrusion of glare from this source into the adjacent residential neighborhood or roadways. Other reflective surfaces at the Project Site would include glass windows. Landscaping adjacent to the structures would soften and diffuse glare from windows.

There is a potential for the new marquee signs, pool lighting, campus lighting configuration, and new building surfaces to adversely affect nighttime views in the area and result in substantial glare. Therefore, impacts are considered **potentially significant**. Mitigation Measures AES- 1 and AES-2 would require that each of the light sources will be directed onto the Project Site or campus and will be equipped with a visor that will further direct the lighting downward, reducing the potential for spill lighting outside of the parking lots and the access road. Implementation of Mitigation Measure AES-3 would ensure that night lighting not required for security is restricted to 10:00 p.m. on school nights and would not be operated when school is not in session. Mitigation Measure AES-4 would require the use of nonreflective textured surfaces on building exteriors, as well as prohibiting the use of reflective glass.

5.1.4 Mitigation Measures

Impact 5.1-4

AES-1 To minimize spill lighting and glare impacts, all lighting from the Proposed Project, including from pool lighting, shall be LED, have full-cutoff shielding, be aimed specifically to direct areas.

AES-2 Atmospheric lighting pollution shall be reduced by using full cut-off shielded lighting fixtures that eliminate light directed to the sky. Marquee sign lighting shall be dimmable in the evenings when not required for student/community communication.

AES-3 Santa Monica-Malibu Unified School District (SMMUSD) shall minimize the effects of new sources of night lighting. Such measures, which may include the following and/or other measures, will be incorporated into each phase of the Proposed Project's design and operation:

- All exterior lighting shall be delineated as either "night lighting" or "security lighting" and controlled by separate automatic timers. Lights delineated as security lighting shall be determined by the campus principal, security, and facility manager.
- All lighting delineated as "night lighting" shall be shut off automatically at 10:00 p.m. on school nights. This includes pool lights.
- When operation of "night lighting" is necessary after 10:00 p.m., SMMUSD as operator of the Project Site shall provide notice to the community by posting such notice on the campus website and the school message board and marquee.
- When school is not in session (such as summer and winter break and weekends), "night lighting" shall not be permitted, and only required security lighting shall be illuminated.

AES-4 All structures shall incorporate nonreflective exterior building materials in their designs, and the use of reflective glass shall be prohibited.

AES-5 The pool lighting shall be designed to meet safety requirements of 30 foot candles over the pool and 20 foot candles over the deck as measured at the water level, while also minimizing light spill, glare, and skyglow to the extent feasible to ensure proper lighting levels necessary for competitive water polo play. Pool lighting shall be turned off within ½ hour of aquatic use.

5.1.5 Level of Significance After Mitigation

Mitigation Measures AES-1 through AES-4 would reduce potential impacts related to an increase in light and glare for the general outdoor lighting program to a level that is **less than significant**. However, in order to meet the required safety standards, the new pool lighting would likely continue to exceed standards set forth in the City of Malibu Dark Sky Ordinance. Therefore, impacts regarding pool lighting would remain **significant and unavoidable**.

5.1.6 Cumulative Impacts

The geographic context for the analysis of cumulative aesthetic impacts varies by threshold. Thus, the geographic context for the cumulative analysis is limited to areas within views of the Project Site. The closest cumulative project similar to the Proposed Project is the new building construction at Point Dume Elementary School, approximately 2.5 miles southwest of the Project Site. All development in the city is subject to all applicable policies contained in the City of Malibu's LCP relating to scenic resources and visual quality. Compliance with these policies would ensure that the limited future development would not result in a substantial adverse effect on a scenic vista or the degradation of the existing visual character or quality of the site and its surroundings. Development within the same viewshed as the Proposed Project consists almost exclusively of low-density single-family residential development in a rural area that is heavily vegetated on sloping natural terrain. These uses are located on lots typically ranging in size from 1 to 2 acres. Because of the substantial lot size of residential uses and the abundance of vegetation in the vicinity of the Project Site, visual changes in the built environment are commonly not perceptible and it is unlikely that cumulative changes to scenic vistas or the aesthetic character of the area would occur.

Additionally, any new sources of lighting would create spillover on adjacent light-sensitive uses. Additionally, Mitigation Measures AES-1 through AES-4 would ensure that the Proposed Project would not create significant impacts relating to light and glare by requiring that strategies are employed to reduce spillover and ambient light created by the Proposed Project's new light sources. Mitigation Measure AES-3 would ensure that lighting would continue to be divided into "night light" circuits and "security light" circuits. Night lighting would include existing and new campus parking lots, pedestrian pathways, and other nighttime non-security-required lighting. The nighttime lighting would be controlled by an automatic timer and would be programmed to turn off at 10:00 p.m. each evening. Minimal safety and security lighting would be provided in the new buildings and existing building interiors, on exterior walls of the buildings and existing buildings, building entrances, covered walks, and where needed to meet specific campus security requirements. Security light circuits would also be controlled by an automatic timer and would be programmed to operate from dusk to dawn. Mitigation Measure AES-4 would require that nonreflective building materials are used in the design of the new proposed buildings.

As such, the contribution of the Proposed Project to such cumulative impacts would not be cumulatively considerable, because, as described, the Proposed Project would not degrade a scenic vista, have a substantial adverse effect on the visual character or quality of the Project Area, or result in light and glare impacts. Therefore, the Proposed Project's contribution would not be cumulatively considerable, and the cumulative impact of the Proposed Project would be **less than significant**.

5.1.7 References

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National Federation of State High School Associations (NFHS). 2018-19. Swimming and Diving Rules Book 2018-2019 (Section 3, Pool Construction).

5.2 AIR QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for the Malibu Middle and High School (MMHS) Campus Specific Plan Project (Proposed Project) to impact air quality in a local and regional context. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (South Coast AQMD). The analysis focuses on air pollution from regional emissions and localized pollutant concentrations. In this section, "emissions" refers to the actual quantity of pollutant, measured in pounds per day (lbs/day), and "concentrations" refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ($\mu g/m^3$).

Criteria air pollutant emissions modeling is included in Appendix D, A*ir Quality and Greenhouse Gas Emissions Data*, of this DEIR. Criteria air pollutant emissions modeling for the Proposed Project is included in Appendix D of this DEIR. Transportation-sector impacts are based on trip generation and vehicle miles traveled as provided by Kittelson & Associates (see Appendix L). Cumulative impacts related to air quality are based on the regional boundaries of the South Coast Air Basin (SoCAB). An evaluation of localized construction health risks is in Appendix E, *Construction Health Risk Assessment*, of this DEIR.

The analysis in this section is based in part on the following technical report(s):

- Appendix D, *Air Quality and Greenhouse Emissions Data*
- Appendix E, *Construction Health Risk Assessment Background and Modeling Data*
- Appendix L, *Malibu Middle and High School Campus Specific Plan Transportation Impact Analysis*, Kittelson & Associates Inc., August 2021

A complete copy of these technical reports is provided in Appendices D, E, and L of this DEIR.

One comment letter was received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project by South Coast AQMD. The following section addresses the comments from South Coast AQMD. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.2.1 Environmental Setting

5.2.1.1 AIR POLLUTANTS OF CONCERN

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_X), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, nitrogen dioxide (NO_2), PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that ambient air quality

standards (AAQS) have been established for them. VOC and NO_X are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants.

Each of the primary and secondary criteria air pollutants and its known health effects are described below.

- **Carbon Monoxide** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (South Coast AQMD 2005; US EPA 2021a). The SoCAB is designated as being in attainment under the California AAQS and attainment (serious maintenance) under the National AAQS (CARB 2019).

- **Volatile Organic Compounds** are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as aerosols (South Coast AQMD 2005). There are no AAQS for VOCs. However, because they contribute to the formation of O_3, South Coast AQMD has established a significance threshold. The health effects for ozone are described later in this section.

- **Nitrogen Oxides** are a byproduct of fuel combustion and contribute to the formation of O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_X are nitric oxide (NO) and NO_2. The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure (South Coast AQMD 2005; US EPA 2021a). The SoCAB is designated as an attainment (maintenance) area under the National AAQS and attainment area under the California AAQS (CARB 2019).

- **Sulfur Dioxide** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory

effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing) at lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (South Coast AQMD 2005; US EPA 2021a). The SoCAB is designated as attainment under the California and National AAQS (CARB 2019).

- **Suspended Particulate Matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤10 millionths of a meter or 0.0004 inch). Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns or less (i.e., ≤2.5 millionths of a meter or 0.0001 inch). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The US Environmental Protection Agency's (EPA) scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing) (South Coast AQMD 2005). There has been emerging evidence that ultrafine particulates, which are even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch) have human health implications because their toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2013). However, the EPA and the California Air Resources Board (CARB) have not adopted AAQS to regulate these particulates. Diesel particulate matter is classified by CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects such as visibility impairment,[1] environmental damage,[2] and aesthetic damage[3] (South Coast AQMD 2005; US EPA 2021a). The SoCAB is a nonattainment area for $PM_{2.5}$ under California and National AAQS and a nonattainment area for PM_{10} under the California AAQS (CARB 2019).[4]

- **Ozone**, or O_3, is a key ingredient of "smog" and is a gas that is formed when VOCs and NO_X, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O_3 poses

[1] $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.

[2] Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

[3] Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

[4] CARB approved the South Coast AQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM_{10} standards from 2004 to 2007. The EPA approved the State of California's request to redesignate the South Coast PM_{10} nonattainment area to attainment of the PM_{10} National AAQS, effective on July 26, 2013.

a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (South Coast AQMD 2005; US EPA 2021a). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2019).

- **Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (South Coast AQMD 2005; US EPA 2021a). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.[5] As a result of these violations, the Los Angeles County portion of the SoCAB is designated nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2019). Because emissions of lead are found only in projects that are permitted by South Coast AQMD, lead is not a pollutant of concern for the Proposed Project.

Table 5.2-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

[5] Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (South Coast AQMD 2012).

Table 5.2-1 Criteria Air Pollutant Health Effects Summary

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	• Chest pain in heart patients • Headaches, nausea • Reduced mental alertness • Death at very high levels	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O_3)	• Cough, chest tightness • Difficulty taking a deep breath • Worsened asthma symptoms • Lung inflammation	Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO_2)	• Increased response to allergens • Aggravation of respiratory illness	Same as carbon monoxide sources
Particulate Matter (PM_{10} and $PM_{2.5}$)	• Hospitalizations for worsened heart diseases • Emergency room visits for asthma • Premature death	Cars and trucks (particularly diesels) Fireplaces and woodstoves Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO_2)	• Aggravation of respiratory disease (e.g., asthma and emphysema) • Reduced lung function	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	• Behavioral and learning disabilities in children • Nervous system impairment	Contaminated soil

Source: CARB 2019; South Coast AQMD 2005.

Toxic Air Contaminants

People exposed to toxic air contaminants (TACs) at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (US EPA 2021b). By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. There are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most relevant to the Proposed Project being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified diesel particulate matter (DPM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs. Long-term (chronic) inhalation of DPM is likely a lung cancer risk. Short-term (i.e., acute) exposure can cause irritation and inflammatory systems and may exacerbate existing allergies and asthma systems (US EPA 2002).

5.2.1.2 REGULATORY BACKGROUND

Ambient air quality standards (AAQS) have been adopted at the state and federal levels for criteria air pollutants. In addition, both the state and federal government regulate the release of TACs. The Proposed Project is in the SoCAB and is subject to the rules and regulations imposed by the South Coast AQMD, the California AAQS adopted by the California Air Resources Board (CARB), and National AAQS adopted by the US EPA. Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the Proposed Project are summarized in this section.

Federal and State

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 CAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 5.2-2, *Ambient Air Quality Standards for Criteria Air Pollutants*. These pollutants are O_3), NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and Pb. In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 5.2-2 Ambient Air Quality Standards for Criteria Air Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4]	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)[5]	24 hours	25 µg/m^3	*	Industrial processes.
Visibility-Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

Table 5.2-2 Ambient Air Quality Standards for Criteria Air Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016.
Notes: ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
1 California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in § 70200 of Title 17 of the California Code of Regulations.
2 National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
4 On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
5 On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions:

- **Assembly Bill (AB) 1493: Pavley Fuel Efficiency Standards.** Pavley I is a clean-car standard that reduces greenhouse gas (GHG) emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.

- **Senate Bill (SB) 1078 and SB 107: Renewables Portfolio Standards.** A major component of California's Renewable Energy Program is the renewables portfolio standard (RPS) established under SB 1078 (Sher) and SB 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent to reach at least 20 percent by December 30, 2010.

- **20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards.** The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on

December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances.

- **24 CCR, Part 6: Building and Energy Efficiency Standards.** Energy conservation standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977.

- **24 CCR, Part 11: Green Building Standards Code.** Establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[6]

Tanner Air Toxics Act and Air Toxics Hot Spot Information and Assessment Act

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and reduce exposure to them. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health" (17 CCR § 93000). A substance that is listed as a hazardous air pollutant pursuant to § 112(b) of the federal Clean Air Act (42 US Code § 7412[b]) is a TAC. Under state law, the California Environmental Protection Agency (Cal EPA), acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit that TAC. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate "toxics best available control technology" to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- **13 CCR Chapter 10 § 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.** Generally restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes.

[6] The green building standards became mandatory in the 2010 edition of the code.

- **13 CCR Chapter 10 § 2480: Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools.** Generally restricts a school bus or transit bus from idling for more than five minutes when within 100 feet of a school.

- **13 CCR § 2477 and Article 8: Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate.** Regulations established to control emissions associated with diesel-powered TRUs.

Regional

Air Quality Management Planning

South Coast AQMD is the agency responsible for improving air quality in the SoCAB and ensuring that the National and California AAQS are attained and maintained. South Coast AQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

2016 AQMP

On March 3, 2017, South Coast AQMD adopted the 2016 AQMP, which serves as an update to the 2012 AQMP. The 2016 AQMP addresses strategies and measures to attain the following National AAQS:

- 2008 National 8-hour ozone standard by 2031
- 2012 National annual $PM_{2.5}$ standard by 2025[7]
- 2006 National 24-hour $PM_{2.5}$ standard by 2019
- 1997 National 8-hour ozone standard by 2023
- 1979 National 1-hour ozone standard by 2022

It is projected that total NO_X emissions in the SoCAB would need to be reduced to 150 tons per day (tpd) by year 2023 and to 100 tpd in year 2031 to meet the 1997 and 2008 federal 8-hour ozone standards. The strategy to meet the 1997 federal 8-hour ozone standard would also lead to attaining the 1979 federal 1-hour ozone standard by year 2022 (South Coast AQMD 2017), which requires reducing NO_X emissions in the SoCAB to 250 tpd. This is approximately 45 percent additional reductions above existing regulations for the 2023 ozone standard and 55 percent additional reductions to existing regulations to meet the 2031 ozone standard.

Reducing NO_X emissions would also reduce $PM_{2.5}$ concentrations in the SoCAB. However, because the goal is to meet the 2012 federal annual $PM_{2.5}$ standard no later than year 2025, South Coast AQMD is seeking to reclassify the SoCAB from "moderate" to "serious" nonattainment under this federal standard. A "moderate" nonattainment would require meeting the 2012 federal standard by no later than 2021.

Overall, the 2016 AQMP is composed of stationary and mobile-source emission reductions from regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources, such as aircrafts, locomotives, and ocean-going vessels. Strategies outlined in

[7] The 2016 AQMP requests a reclassification from moderate to serious nonattainment for the 2012 National $PM_{2.5}$ standard.

the 2016 AQMP would be implemented in collaboration between CARB and the EPA (South Coast AQMD 2017).

Lead Implementation Plan

In 2008, the EPA designated the Los Angeles County portion of the SoCAB as a nonattainment area under the federal lead (Pb) classification because of the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in the City of Vernon and the City of Industry that exceeded the new standard in the 2007 to 2009 period. The remainder of the SoCAB, outside the Los Angeles County nonattainment area, remains in attainment of the new 2008 lead standard. On May 24, 2012, CARB approved the State Implementation Plan (SIP) revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to the EPA for approval.

South Coast AQMD Rules and Regulations

All projects are subject to South Coast AQMD rules and regulations in effect at the time of activity, including:

- **Rule 401, Visible Emissions.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than three minutes in any one hour that is as dark as or darker than designated No. 1 on the Ringelmann Chart, as published by the US Bureau of Mines.

- **Rule 402, Nuisance.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

- **Rule 403, Fugitive Dust.** This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth-moving and grading activities.

- **Rule 445, Wood Burning Devices.** In general, the rule prohibits new developments from the installation of wood-burning devices. This rule is intended to reduce the emission of particulate matter from wood-burning devices and applies to manufacturers and sellers of wood-burning devices, commercial sellers of firewood, and property owners and tenants that operate a wood-burning device.

- **Rule 1113, Architectural Coatings.** This rule serves to limit the VOCs content of architectural coatings used on projects in the South Coast AQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the South Coast AQMD must comply with the current VOC standards set in this rule.

- **Rule 1403, Asbestos Emissions from Demolition/Renovation Activities.** The purpose of this rule is to specify work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

The LUP identifies the following policies related to air quality (City of Malibu 2002b):

Chapter 4—Hazards & Shoreline/Bluff Development

Section 30253

New development shall:

3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 5. Safety and Health Element

The City of Malibu General Plan's Safety and Health Element creates a cohesive guide consisting of specific policy-oriented implementation measures. The intention is to reduce the potential for loss of life, injuries, damage to property, and social and economic dislocation resulting from major hazards throughout the community. The Safety and Health Element has the following goals, policies, and objectives related to air quality:

S Goal 1: A community that is free from all avoidable risks to safety, health and welfare from natural and man-made hazards

- **S Objective 1.1:** Losses to life and property from natural and man-made hazards greatly reduced from historic levels.
  - **S Policy 1.1.1:** The City shall protect people and property from environmental hazards.
  - **S Policy 1.1.6:** The City shall reduce air pollution and improve Malibu's air quality.

To implement these policies, the City shall:

- **S Implementation Measure 12:** Provide South Coast Air Quality Management District regional wind patterns maps to homeowners, architects and contractors to help them plan development siting and design that minimizes fire hazards.
- **S Implementation Measure 30:** Work with regional agencies to implement the provisions of the South Coast Air Quality Management Plan (AQMP).
- **S Implementation Measure 31**: Promote public education and awareness of air quality.
- **S Implementation Measure 32**: Work with other agencies to reduce local sources of air pollution such as dust, smoke, and vehicle emissions.
- **S Implementation Measure 33:** Evaluate impacts on air quality in connection with development proposals.
- **S Implementation Measure 34:** Encourage residents and visitors to reduce the number of vehicle miles traveled while in the City.

5.2.1.3 EXISTING CONDITIONS

The Project Site is in the SoCAB, which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (South Coast AQMD 2005).

Meteorology

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the Project Site that best represents the climatological conditions of the Project Site is the Thousand Oaks 1SW, California Monitoring Station (ID 048904). The average low temperature is reported as 43.2°F in January, and the average high temperature is 85.9°F in July (WRCC 2021).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Rainfall averages 10.49 inches per year in the vicinity of the Project Site (WRCC 2021).

Humidity

Although the SoCAB has a semiarid climate, the air near the Earth's surface is typically moist because of a shallow marine layer. This "ocean effect" is dominant except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds. Periods of heavy fog are frequent, given the Project Site's location along the coast. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (South Coast AQMD 1993).

Wind

Wind patterns across the southern coastal region are characterized by westerly or southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB combined with other meteorological conditions can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east inhibit the eastward transport and diffusion of pollutants. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (South Coast AQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The

height of the base of the inversion at any given time is known as the "mixing height." The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the Project Area (South Coast AQMD 2005).

SoCAB Nonattainment Areas

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the SIP. Areas are classified as attainment or nonattainment areas for particular pollutants depending on whether they meet the AAQS. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- ***Unclassified.*** A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- ***Attainment.*** A pollutant is in attainment if the AAQS for that pollutant was not violated at any site in the area during a three-year period.
- ***Nonattainment.*** A pollutant is in nonattainment if there was at least one violation of an AAQS for that pollutant in the area.
- ***Nonattainment/Transitional.*** A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 5.2-3, *Attainment Status of Criteria Air Pollutants in the South Coast Air Basin*.

Table 5.2-3 Attainment Status of Criteria Air Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM_{10}	Serious Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only)[1]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2021a.

[1] In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new 2008 federal AAQS as a result of large industrial emitters. Remaining areas in the SoCAB are unclassified.

Multiple Air Toxics Exposure Study V

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on existing ambient concentrations of TACs and the potential health risks from air toxics in the SoCAB. In April 2021, South Coast AQMD released the latest update to the MATES study, MATES V. The first MATES analysis, MATES I, began

in 1986 but was limited because of the technology available at the time. Conducted in 1998, MATES II was the first MATES iteration to include a comprehensive monitoring program, an air toxics emissions inventory, and a modeling component. MATES III was conducted in 2004 to 2006, with MATES IV following in 2012 to 2013.

MATES V uses measurements taken during 2018 and 2019, with a comprehensive modeling analysis and emissions inventory based on 2018 data. The previous MATES studies quantified the cancer risks based on the inhalation pathway only. MATES V includes information on the chronic noncancer risks from inhalation and non-inhalation pathways for the first time. Cancer risks and chronic noncancer risks from MATES II through IV measurements have been re-examined using current Office of Environmental Health Hazards Assessment and CalEPA risk assessment methodologies and modern statistical methods to examine the trends over time.

The MATES V study showed that cancer risk in the SoCAB decreased to 454 in a million from 997 in a million in the MATES IV study. Overall, air toxics cancer risk in the SoCAB decreased by 54 percent since 2012 when MATES IV was conducted. MATES V showed the highest risk locations near the Los Angeles International Airport and the Ports of Long Beach and Los Angeles. DPM continues to be the major contributor to air toxics cancer risk (approximately 72 percent of the total cancer risk). Goods movement and transportation corridors have the highest cancer risk. Transportation sources account for 88 percent of carcinogenic air toxics emissions, and the remainder is from stationary sources, which include large industrial operations such as refineries and power plants as well as smaller businesses such as gas stations and chrome-plating facilities. (South Coast AQMD 2021).

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the Project Site are best documented by measurements taken by the South Coast AQMD. The Proposed Project is located within Source Receptor Area (SRA) 2: Northwest Coastal LA County.[8] The air quality monitoring station closest to the Proposed Project is the West Los Angeles-Veterans' Administration (VA) Hospital Monitoring Station, which is one of 31 monitoring stations South Coast AQMD operates and maintains within the SoCAB.[9] Data from this station includes O_3, NO_2, and $PM_{2.5}$ and is summarized in Table 5.2-4, *Ambient Air Quality Monitoring Summary*. Data for PM_{10} is supplemented by the Los Angeles-Westchester Parkway Monitoring Station and data for $PM_{2.5}$ is supplemented by the Reseda Monitoring Station. The data show that the area regularly exceeds the state and federal one-hour and eight-hour O_3 standards within the last five recorded years. Additionally, the area has regularly exceeded the state PM_{10} standards and has exceeded the federal $PM_{2.5}$ standard.

[8] Per South Coast AQMD Rule 701, an SRA is defined as: "A source area is that area in which contaminants are discharged, and a receptor area is that area in which the contaminants accumulate and are measured. Any of the areas can be a source area, a receptor area, or both a source and receptor area." There are 37 SRAs in the South Coast AQMD's jurisdiction.

[9] Locations of the SRAs and monitoring stations are shown here: http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf.

Table 5.2-4 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Thresholds Were Exceeded and Maximum Levels[1, 2]				
	2015	2016	2017	2018	2019[3]
Ozone (O_3)[1]					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	2	0	1	0	0
Federal 8-hour ≥ 0.070 ppm (days exceed threshold)	2	2	3	2	1
Max. 1-Hour Conc. (ppm)	0.102	0.085	0.099	0.094	0.086
Max. 8-Hour Conc. (ppm)	0.072	0.073	0.077	0.073	0.075
Nitrogen Dioxide (NO_2)[1]					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.0676	0.0545	0.0557	0.0647	0.0488
Coarse Particulates (PM_{10})[2]					
State 24-Hour > 50 µg/m^3 (days exceed threshold)	0	0	0	0	2
Federal 24-Hour > 150 µg/m^3 (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (µg/m^3)	42.0	43.0	46.5	45.3	62.1
Fine Particulates ($PM_{2.5}$)[4]					
Federal 24-Hour > 35 µg/m^3 (days exceed threshold)	1	0	0	1	0
Max. 24-Hour Conc. (µg/m^3)	36.8	30.0	35.2	38.9	30.0

Source: CARB 2021b.
Notes: ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter; * = Data not available
[1] Data obtained from the West Los Angeles-VA Hospital Monitoring Station$_5$.
[2] Data obtained from the Los Angeles-Westchester Parkway Monitoring Station.
[3] Data obtained from the Reseda Monitoring Station.
[4] Most recent data available as of August 2021.

Existing Emissions

The Project Site houses the Malibu Middle and High School (MMHS) campus, which contains 203,734 square feet of developed structures as well as student areas, athletic fields, and parking areas. The existing middle school and high school operations currently generate criteria air pollutant emissions from area sources (e.g., use of landscaping equipment, maintenance activities such as architectural coating), energy use (i.e., natural gas used for heating), and mobile sources (i.e., student and staff trips to the campus).

Sensitive Receptors

Some land uses are considered more sensitive to air pollution (i.e., TACs) than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent because

the majority of workers tend to stay indoors most of the time. In addition, the workforce is generally the healthiest segment of the population.

As seen in Figures 1 and 2 of Appendix E, the nearest off-site sensitive receptors to the Project Site include residences to the northeast along Clover Heights Avenue, to the west along Via Cabrillo, and southwest along Morning View Drive.

5.2.2 Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.

AQ-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.

AQ-3 Expose sensitive receptors to substantial pollutant concentrations.

AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The IS/NOP, included as Appendix B to this DEIR, substantiates that the impacts associated with the following thresholds would be less than significant; therefore, this impact will not be further addressed in this DEIR:

- Threshold AQ-4

5.2.2.1 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS

South Coast AQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB, shown in Table 5.2-5, *South Coast AQMD Significance Thresholds*. The table lists thresholds that are applicable for all projects uniformly, regardless of size or scope. There is growing evidence that although ultrafine particulate matter contributes a very small portion of the overall atmospheric mass concentration, it represents a greater proportion of the health risk from PM. However, the US EPA and CARB have not adopted AAQS to regulate ultrafine particulate matter; therefore, South Coast AQMD has not developed thresholds for it.

Table 5.2-5 South Coast AQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day
Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

Source: South Coast AQMD 2019.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health effects. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Increases cancer risk ($PM_{2.5}$, TACs)
- Aggravates respiratory disease (O_3, $PM_{2.5}$)
- Increases bronchitis (O_3, $PM_{2.5}$)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O_3)
- Reduces resistance to infections and increases fatigue (O_3)
- Reduces lung growth in children ($PM_{2.5}$)
- Contributes to heart disease and heart attacks ($PM_{2.5}$)
- Contributes to premature death (O_3, $PM_{2.5}$)
- Contributes to lower birth weight in newborns ($PM_{2.5}$) (South Coast AQMD 2015b)

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of $PM_{2.5}$ is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists, in a landmark children's health study, found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (South Coast AQMD 2015b).

South Coast AQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals exposed to elevated concentrations of air pollutants in the SoCAB and has established thresholds that would be protective of these individuals. To achieve the health-based standards established by the EPA, South Coast AQMD prepares an AQMP that details regional programs to attain the AAQS. Mass emissions shown in Table 5.2-5 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. The thresholds are based on the trigger levels for the federal New Source Review (NSR) Program. The NSR Program was created to ensure projects are consistent with attainment of health-based federal AAQS. Regional emissions from a single project do not single-handedly trigger a regional health impact, and it is speculative to identify how many more individuals in the air basin would be affected by the health effects listed previously. Projects that do not exceed the South Coast AQMD regional significance thresholds in Table 5.2-5 would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

If projects exceed the emissions in Table 5.2-5, emissions would cumulatively contribute to the nonattainment status and would contribute to elevating health effects associated with these criteria air pollutants. Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Health effects associated with particulate matter include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would further contribute to reducing possible health effects related to criteria air pollutants. However, for projects that exceed the emissions in Table 5.2-5, it is speculative to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment since mass emissions are

not correlated with concentrations of emissions or how many additional individuals in the air basin would be affected by the health effects cited previously.

South Coast AQMD has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health to address the issue raised in *Sierra Club v. County of Fresno* (Friant Ranch, L.P.) (2018) 6 Cal.5th 502, Case No. S21978. Ozone concentrations are dependent on a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground-level ozone concentrations in relation to the National AAQS and California AAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds. However, if a project in the SoCAB exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the basin until the attainment standards are met in the SoCAB.

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles and introduction of cleaner fuels, as well as implementation of control technology on industrial facilities, CO concentrations in the SoCAB and the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hotspot analysis conducted for attainment by South Coast AQMD did not predict a violation of CO standards at the busiest intersections in Los Angeles during the peak morning and afternoon periods.[10] As identified in South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in years before redesignation were a result of unusual meteorological and topographical conditions and not of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—to generate a significant CO impact (BAAQMD 2017).[11]

[10] The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

[11] The CO hotspot analysis refers to the modeling conducted by the Bay Area Air Quality Management District for its CEQA Guidelines because it is based on newer data and considers the improvement in mobile-source CO emissions. Although meteorological conditions in the Bay Area differ from those in the Southern California region, the modeling conducted by BAAQMD demonstrates that the net increase in peak hour traffic volumes at an intersection in a single hour would need to be substantial. This finding is consistent with the CO hotspot analysis South Coast AQMD prepared as part of its 2003 AQMP to provide support in seeking CO attainment for the SoCAB. Based on the analysis prepared by South Coast AQMD, no CO hotspots were predicted for the SoCAB. As noted in the preceding footnote, the analysis included some of Los Angeles' busiest intersections, with daily traffic volumes of 100,000 or more peak hour vehicle trips operating at LOS E and F.

Localized Significance Thresholds

South Coast AQMD identifies localized significance thresholds (LST), shown in Table 5.2-6, *South Coast AQMD Localized Significance Thresholds*. Emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at a project site could expose sensitive receptors to substantial concentrations of criteria air pollutants. Off-site mobile-source emissions are not included in the LST analysis. A project would generate a significant impact if it generates emissions that, when added to the local background concentrations, violate the AAQS.

Table 5.2-6 South Coast AQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual NO_2 Standard (CAAQS)	0.03 ppm
24-Hour PM_{10} Standard – Construction (South Coast AQMD)[1]	10.4 µg/m^3
24-Hour $PM_{2.5}$ Standard – Construction (South Coast AQMD)[1]	10.4 µg/m^3
24-Hour PM_{10} Standard – Operation (South Coast AQMD)[1]	2.5 µg/m^3
24-Hour $PM_{2.5}$ Standard – Operation (South Coast AQMD)[1]	2.5 µg/m^3
Annual Average PM_{10} Standard (South Coast AQMD)[1]	1.0 µg/m^3

Source: South Coast AQMD 2019.
ppm – parts per million; µg/m^3 – micrograms per cubic meter
[1] Threshold is based on South Coast AQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, South Coast AQMD developed screening-level LSTs to back-calculate the mass amount (pounds per day) of emissions generated on-site that would trigger the levels shown in Table 5.2-6 for projects under five acres. These "screening-level" LST tables are the LSTs for all projects of five acres and less and are based on emissions over an 8-hour period; however, they can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required.

The screening-level LSTs in SRA 2 are shown in Table 5.2-7, *South Coast AQMD Screening-Level LSTs (Phase 1)*, and Table 5.2-8, *South Coast AQMD Screening-Level LSTs (Phases 2 through 4)*, for Phase 1 and Phases 2 through 4 construction activities, respectively. For construction activities, LSTs are based on the acreage disturbed per day based on equipment use (South Coast AQMD 2011) up to the Project Site acreage. For Phase 1, the screening-level LSTs reflect the thresholds for receptors, who would be on-site less than 24 hours per day (e.g., students), within 82 feet (25 meters) for NOx and CO, and receptors who could potentially be within the screening distance for up to 24 hours per day (e.g., residential uses), which are at 115 feet (35 meters) for PM_{10} and $PM_{2.5}$. The Phases 2 through 4 screening-level LSTs reflect the thresholds for receptors within 82 feet (25 meters).

Table 5.2-7 South Coast AQMD Screening-Level LSTs (Phase 1)

	Phase 1 Threshold (lbs/day)			
Acreage Disturbed	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
≤1.00 Acre Disturbed Per Day	103	562	7.22	3.40
1.31 Acres Disturbed Per Day	117	645	8.47	3.71
1.81 Acres Disturbed Per Day	139	777	10.48	4.21

Table 5.2-7 South Coast AQMD Screening-Level LSTs (Phase 1)

	Phase 1 Threshold (lbs/day)			
Acreage Disturbed	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
2.50 Acres Disturbed Per Day	159	944	13.33	4.80

Source: South Coast AQMD 2008a, 2011.
The screening-level LSTs are based on receptors with exposure durations less than 24-hours within 82 feet (25 meters) for NO_x and CO; and receptors within 115 feet (35 meters) of the Project Site for PM_{10} and $PM_{2.5}$.

Table 5.2-8 South Coast AQMD Screening-Level LSTs (Phases 2 through 4)

	Phases 2 through 4 Threshold (lbs/day)			
Acreage Disturbed	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
≤1.00 Acre Disturbed Per Day	103	562	4.00	3.00
1.31 Acres Disturbed Per Day	117	645	4.62	3.31
1.81 Acres Disturbed Per Day	139	777	10.48	4.21
2.50 Acres Disturbed Per Day	159	944	7.16	4.33

Source: South Coast AQMD 2008a, 2011.
The screening-level LSTs are based on receptors within 82 feet (25 meters).

Health Risk

Whenever a project would require use of chemical compounds that have been identified in South Coast AQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the South Coast AQMD. Table 5.2-9, *South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. This environmental evaluation identifies the significant effects of the Proposed Project on the environment, not the significant effects of the environment on the Proposed Project (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 [Case No. S213478]). However, the environmental document must analyze the impacts of environmental hazards on future users when a Proposed Project exacerbates an existing environmental hazard or condition. Residential, school, commercial, and office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects.

Table 5.2-9 South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Cancer Burden (in areas ≥ 1 in 1 million)	> 0.5 excess cancer cases
Hazard Index (project increment)	≥ 1.0

Source: South Coast AQMD 2019.

5.2.3 Environmental Impacts

5.2.3.1 METHODOLOGY

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with future development that would be accommodated by the Proposed Project. South Coast AQMD's *CEQA Air Quality Handbook* (Handbook) and updates on its website are intended to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in environmental impact reports (EIRs), and they were used in this analysis.

Criteria Air Pollutant Emissions

Air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), version 2020.4 (CAPCOA 2021). CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater (annual only). Criteria air pollutant emissions modeling is included in Appendix D of this DEIR. The calculated emissions of the Proposed Project are compared to thresholds of significance for individual projects using the South Coast AQMD's Handbook. Following is a summary of the assumptions used for the Proposed Project analysis.

Construction Phase

Construction would entail demolition of existing structures and asphalt, site preparation, grading, off-site hauling of demolition debris and earthwork material, construction of the proposed structures and buildings, architectural coating, and asphalt paving on 40 acres of the approximately 87-acre Project Site over 4 construction phases (Phases 1, 2, 3, and 4). The Proposed Project is anticipated to be constructed over a period of approximately 10 years, from June 2022 to May 2031. The campus would continue to operate during construction; therefore, construction activities could occur during periods in which students are on campus.

Phase 1 (Near-Term Construction)

Phase 1 construction air pollutant emissions are based on the preliminary information provided or verified by the District for near-term construction. Construction of Phase 1 would involve demolition of the existing Juan Cabrillo Elementary School (JCES) buildings and debris haul as well as site preparation, grading and soil haul, utility trenching, building construction, architectural coating, paving, and finishing and landscaping on

approximately 5.72 acres of the Project Site. Table 5.2-10, *Construction Phasing and Equipment (Phase 1),* shows the construction phasing, duration, and equipment mix anticipated for Phase 1.

Table 5.2-10 Construction Phasing and Equipment (Phase 1)

Construction Phase	Description	Approximate Duration	Equipment/Haul
Demolition	Building and Asphalt Demolition	June 2022 to August 2022 2.5 months	1 – Cat 242D 2 – Volvo 380E 1 – Generator 1 – Water Truck
	Building and Asphalt Demolition Haul	June 2022 to August 2022 2.5 months	1 – CAT 352 1 – Deere 724L 1 – Peterbilt 4000 1 – Peterbilt 389
Site Preparation	Building and Asphalt Demolition and Site Preparation	August 2022 2 weeks	1 – Cat 242D 2 – Volvo 380E 1 – Generator 1 – Loader 1 – Street Sweeper
Grading	Rough Grading	September 2022 to October 2022 2 months	1 – Blade 1 – Dozer 1 – Scraper 1 – Roller
	Rough Grading Import and Export	September 2022 to October 2022 2 months	1 – Skip Loader 1 – Street Sweeper
Utility Trenching	Utility Trenching	November 2022 to December 2022 1.5 months	1 – Excavator 1 – Loader 1 – Street Sweeper
Building Construction	Building Construction	December 2022 to March 2024 15.5 months	1 – Crane 3 – Forklifts 1 – Generator Sets 3 – Tractors/Loaders/Backhoes 1 – Welders
	Building Construction and Fine Grading	November 2023 to November 2023 2 weeks	1 – Blade 1 – Roller 1 – Cranes 3 – Forklifts 1 – Generator Sets 3 – Tractors/Loaders/Backhoes 1 – Welders
Architectural Coating	Architectural Coating of Buildings	April 2024 1 month	Not Applicable
Paving	Asphalt Paving	May 2024 to June 2024 2 months	1 – Volvo Blawknox P5170 1 – CAT CB15 1 – CAT CB8 1 – Deere 210L 1 – Peterbilt 4000

Table 5.2-10 Construction Phasing and Equipment (Phase 1)

Construction Phase	Description	Approximate Duration	Equipment/Haul
Finishing/ Landscaping	Site Finishing and Landscaping	July 2024 to August 2024 2 months	1 – Deere 210L 1 – CAT 450

Note: Construction duration and equipment provided by the District.

Phases 2 through 4 (Long-Term Construction)

Phases 2 through 4 construction air pollutant emissions were evaluated based on program-level information for long-term buildout. Construction modeling for these phases is based on the worst-case demolition, construction, and hauling information as well as construction duration and largest construction phase area of 7.05 acres among these phases as provided or verified by the District for the most conservative results. Because construction equipment is not available for Phases 2 through 4, the CalEEMod default construction equipment mix was used in the model. Overall, construction of Phases 2 through 4 would involve similar activities, including demolition and debris haul, grading and soil haul, utility trenching, building construction, architectural coating, paving, and finishing and landscaping on approximately 15.92 acres of the Project Site. Table 5.2.11, *Construction Phasing and Equipment (Phases 2 through 4),* shows the construction phasing, duration, and equipment mix for each phase.

Table 5.2-11 Construction Phasing and Equipment (Phases 2 through 4)

Construction Phase	Description	Approximate Duration	Equipment/Haul
Demolition	Building and Asphalt Demolition and Debris Haul	July 2024 to August 2024 2 months	1 – Concrete/Industrial Saws 3 – Excavators 2 – Rubber Tired Dozers
Grading	Rough Grading and Soil Haul	September 2024 to November 2024 2 months	1 – Excavator 1 – Grader 1 – Rubber Tired Dozer 3 – Tractors/Loaders/Backhoes
Building Construction	Building Construction	December 2024 to March 2026 16 months	1 – Crane 3 – Forklifts 1 – Generator Set 3 – Tractors/Loaders/Backhoes 1 – Welders
Architectural Coating	Architectural Coating of Buildings	April 2026 1 month	1 – Air Compressor
Paving	Asphalt Paving	May 2026 to June 2026 2 months	2 – Pavers 2 – Paving Equipment 2 – Rollers
Finishing/ Landscaping	Site Finishing and Landscaping	July 2026 to August 2026 2 months	1 – Excavator

Operational Phase (Full Campus Buildout)

Following completion of construction over the four phases, the campus would operate in a manner similar to existing conditions. Enrollment, staffing, and types of activities used by both the school and the community

would operate in the same manner as existing conditions. Three main sources of emissions are associated with operation: transportation, area sources, and energy consumption. These are described herein.

- **Transportation:** The primary source of mobile criteria air pollutant emissions is tailpipe exhaust emissions from the combustion of fuel (i.e., gasoline and diesel). For particulate matter, brake and tire wear and fugitive dust are created by vehicles traveling on roadways. Because student capacity is not anticipated to increase, the Proposed Project would not result in additional trips.

- **Area Sources.** Area source emissions from use of consumer cleaning products, landscaping equipment, and VOC emissions from paints for Phase 1 buildings are based on information provided or verified by the District. Area source emissions from Phases 2 through 4 are based on CalEEMod default values and the square footage of the proposed buildings and surface parking and non-parking areas.

- **Energy:** Criteria air pollutant emissions from energy use (natural gas used for cooking, heating, etc.) are based on the CalEEMod defaults for natural gas usage for nonresidential land uses. Criteria air pollutant emissions from energy use are associated with natural gas used for heating. Because all of the new buildings would be modern and more efficient than existing buildings (and fewer buildings in number), energy consumption would be similar or lower than existing conditions.

Toxic Air Contaminants

A construction health risk assessment (HRA) from TACs and $PM_{2.5}$ associated with construction equipment exhaust was prepared for the Proposed Project and is included in Appendix E of this DEIR. Sources evaluated in the HRA include off-road construction equipment and heavy-duty diesel trucks along the truck haul route. Modeling is based on US EPA AERMOD, Version 9.9, air dispersion modeling program and the latest HRA guidance from the Office of Environmental Health Hazard Assessment (OEHHA) to estimate excess lifetime cancer risks, chronic non-cancer hazard indices, and the $PM_{2.5}$ maximum annual concentrations at the nearest maximum exposed off-site and on-site sensitive receptors and assumes 24-hour outdoor exposure with risks averaged over a 70-year lifetime (OEHHA 2015).

DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM_{10} construction emissions presented in pounds (lbs) per day. The $PM_{2.5}$ emissions were taken from the CalEEMod output for exhaust $PM_{2.5}$ also presented in lbs per day. Construction of the Proposed Project would take place over 9 years (2,348 workdays) from June 2022 to May 2031. Construction modeling considered years 2022-2024 for Phase 1 construction activities and years 2024-2026 to represent the worst-case Phase 2 through 4 activities for the most conservative results. To account for construction from 2024 through 2031 under the program-level analysis of Phases 2 through 4, the emissions from the worst-case construction model were applied to Phases 2 and 3 as well as the two sets of activities for Phase 4. Because some activities from different phases would overlap, the 2024 emissions from Phase 1 were added with the worst-case emissions data from the Phase 2 through 4 model to represent the overlap in phases. The average daily emission rates from construction equipment used during the Proposed Project were determined by dividing the annual average emissions for each construction year by the number of construction days per year for each calendar year of construction (i.e., 2022 through 2031). The off-site hauling emission rates were adjusted to evaluate localized emissions from the 0.38-mile haul route within 1,000 feet of the Project Site.

Air dispersion modeling using the US EPA's AERMOD program was conducted to assess the impact of emitted compounds on sensitive receptors. The model is a steady-state Gaussian plume model and is an approved model by South Coast AQMD for estimating ground level impacts from point and fugitive sources in simple and complex terrain. Meteorological data obtained from the South Coast AQMD for the nearest representative meteorological station (Santa Monica Airport) with the five latest available years (2012 to 2016) of record were used to represent local weather conditions and prevailing winds.

For all modeling runs, a unit emission rate of 1 gram per second was used. The unit emission rates were proportioned over the poly-area sources for on-site construction emissions and divided between the volume sources for off-site hauling emissions. The maximum modeled concentrations at each sensitive receptor were then multiplied by the construction emission rates to obtain the maximum concentrations at the off-site and on-site maximum exposed receptors (MER). The calculated total cancer risk conservatively assumes that the risk for the MER consists of a pregnant woman in the third trimester that subsequently gives birth to an infant during the approximately 9-year construction period; therefore, all calculated risk values were multiplied by a factor of 10 for the first 2.25 years of construction and by a factor of 3 for the remaining years. In addition, it was conservatively assumed that the residents were outdoors 8 hours a day, 260 construction days per year, and exposed to all of the daily construction emissions.

5.2.3.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.2-1: The Proposed Project would be consistent with the applicable air quality management plan. [Threshold AQ-1]

A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental effects of the Proposed Project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the AQMP.

The regional emissions inventory for the SoCAB is compiled by South Coast AQMD and SCAG. Regional population, housing, and employment projections developed by SCAG are based, in part, on cities' general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP. These demographic trends are incorporated into SCAG's regional transportation plan/sustainable communities strategy to determine priority transportation projects and vehicle miles traveled in the SCAG region. The AQMP strategy is based on projections from local general plans.

Changes in population, housing, or employment growth projections have the potential to affect SCAG's demographic projections and therefore the assumptions in South Coast AQMD's AQMP. Based on the scope and nature of the Proposed Project in that student capacity, staffing, and community event use would not increase, the Proposed Project would not substantially affect housing, employment, or population projections within the region. Finally, the long-term emissions generated by the Proposed Project would not produce

criteria air pollutants that exceed the South Coast AQMD significance thresholds for Proposed Project operations (see Impact 5.2-3). South Coast AQMD's significance thresholds identify whether a project has the potential to cumulatively contribute to the SoCAB's nonattainment designations. Because the Proposed Project would not exceed the South Coast AQMD's regional significance thresholds (see Impact 5.2-2 and Impact 5.2-3) and growth is consistent with regional growth projections, the Proposed Project would not interfere with South Coast AQMD's ability to achieve the long-term air quality goals identified in the AQMP. Therefore, the Proposed Project would be consistent with the AQMP, and impacts would be **less than significant**.

Impact 5.2-2: Construction activities associated with the Proposed Project would not generate short-term emissions in exceedance of South Coast AQMD's threshold criteria. [Threshold AQ-2]

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Construction of the Proposed Project would generate criteria air pollutants associated with construction equipment exhaust and fugitive dust from demolition and debris haul, grading and soil haul, utilities trenching, building construction, architectural coating, pavement of asphalt and non-asphalt surfaces, and finishing and landscaping of the site. Air pollutant emissions from construction activities on-site would vary daily as construction activity levels change. An estimate of maximum daily construction emissions for the Proposed Project is provided in Table 5.2-12, *Maximum Daily Regional Construction Emissions (Phase 1)*, for Phase 1 activities and Table 5.2-13, *Maximum Daily Regional Construction Emissions (Phases 2 through 4)*, for Phases 2 through 4 activities.

Table 5.2-12 Maximum Daily Regional Construction Emissions (Phase 1)

Construction Phase	Pollutants (lb/day)[1, 2]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 1						
Year 2022						
Building and Asphalt Demolition	1	8	10	<1	<1	<1
Building and Asphalt Demolition and Debris Haul	1	10	10	<1	2	1
Building and Asphalt Demolition, Debris Haul, and Site Preparation	1	14	15	<1	2	1
Rough Grading and Soil Haul (Import/Export)	3	52	24	<1	7	3
Utility Trenching	1	5	8	<1	<1	<1
Utility Trenching and Building Construction 1 2022	3	24	29	<1	3	2
Building Construction 1 2022	2	18	21	<1	2	1
Year 2023						
Building Construction 1 2023	2	17	21	<1	2	1
Building Construction 1 2023 and Fine Grading	3	23	25	<1	3	1
Building Construction 2 2023	2	17	21	<1	2	1
Year 2024						
Building Construction 2 2024	2	16	21	<1	2	1
Architectural Coating	8	1	3	<1	<1	<1
Paving	1	10	15	<1	1	<1
Finishing/Landscaping	<1	1	3	<1	<1	<1

Table 5.2-12 Maximum Daily Regional Construction Emissions (Phase 1)

Construction Phase	Pollutants (lb/day)[1, 2] VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Daily Construction Emissions Phase 1						
Maximum Daily Emissions	8	52	29	<1	7	3
South Coast AQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod Version 2020.4.
[1] Based on the preliminary information provided by the District. Where specific information regarding Proposed Project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.
[2] Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers.

Table 5.2-13 Maximum Daily Regional Construction Emissions (Phases 2 through 4)

Construction Phase	Pollutants (lb/day)[1, 2] VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Phase 2 through 4						
Year 2024						
Building and Asphalt Demolition and Debris Haul	2	23	21	<1	3	1
Rough Grading and Soil Haul	2	26	18	<1	5	3
Building Construction 2024	2	16	21	<1	2	1
Year 2025						
Building Construction 2025	2	15	21	<1	2	1
Year 2026						
Building Construction 2026	2	15	21	<1	2	1
Architectural Coating	25	1	3	<1	<1	<1
Paving	1	9	15	<1	1	<1
Finishing/Landscaping	<1	1	3	<1	<1	<1
Maximum Daily Construction Emissions Phase 2 through 4						
Maximum Daily Emissions	25	26	21	<1	5	3
South Coast AQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod Version 2020.4.
[1] Based on the preliminary information provided by the District. Where specific information regarding Proposed Project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.
[2] Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers.

The SoCAB is designated nonattainment for O_3 and $PM_{2.5}$ under the California and National AAQS, nonattainment for PM_{10} under the California AAQS,[12] and nonattainment for lead (Los Angeles County only) under the National AAQS. According to South Coast AQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values would not add significantly to a cumulative impact

[12] Portions of the SoCAB along SR-60 in Los Angeles, Riverside, and San Bernardino Counties are proposed as nonattainment for NO_2 under the California AAQS.

(South Coast AQMD 1993). As shown in these tables, the maximum daily emissions for VOC, NOx, CO, SO_2, PM_{10}, and $PM_{2.5}$ from construction-related activities for Phase 1 and Phases 2 through 4 would be less than their respective South Coast AQMD regional significance threshold values. Therefore, short-term air quality impacts from Proposed Project-related construction activities would be **less than significant**.

Impact 5.2-3: Long-term operation of the Proposed Project would not generate additional vehicle trips and associated emissions in exceedance of South Coast AQMD's threshold criteria. [Threshold AQ-2]

Following full buildout of the four phases of the Proposed Project, operation would generate a net increase in criteria air pollutant emissions from area sources (e.g., landscaping equipment, architectural coating) and energy (i.e., natural gas used for heating and cooking). As shown in Table 5.2-14, *Maximum Daily Regional Operations Emissions (Phase 1)*, and Table 5.2-15, *Maximum Daily Regional Operations Emissions (Full Buildout)*, the maximum daily operation emissions would be less than their respective South Coast AQMD regional significance threshold values. Projects that do not exceed the South Coast AQMD regional significance thresholds would not result in an incremental increase in health impacts in the SoCAB from Project-related increases in criteria air pollutants. Therefore, impacts to the regional air quality associated with operation of the Proposed Project would be **less than significant**.

Table 5.2-14 Maximum Daily Regional Operations Emissions (Phase 1)

Source	Maximum Daily Emissions (lbs/Day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	5	<1	<1	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile[1]	0	0	0	0	0	0
Total	5	1	1	<1	<1	<1
Existing Emissions	4	1	<1	<1	<1	<1
Net Change in Emissions	1	<1	<1	<1	<1	<1
South Coast AQMD Regional Threshold	**55**	**55**	**550**	**150**	**150**	**550**
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Version 2020.4. Highest winter or summer emissions are reported.
Notes: lbs = Pounds.
[1] Because student capacity is not anticipated to increase, the Proposed Project would not result in additional trips.

Table 5.2-15 Maximum Daily Regional Operations Emissions (Full Buildout)

Source	Maximum Daily Emissions (lbs/Day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	6	<1	<1	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile[1]	0	0	0	0	0	0
Total	6	1	1	<1	<1	<1
Existing Emissions	4	1	<1	<1	<1	<1
Net Change in Emissions	2	<1	<1	<1	<1	<1

Table 5.2-15 Maximum Daily Regional Operations Emissions (Full Buildout)

Source	Maximum Daily Emissions (lbs/Day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
South Coast AQMD Regional Threshold	**55**	**55**	**550**	**150**	**150**	**550**
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Version 2020.4. Highest winter or summer emissions are reported.
Notes: lbs = Pounds.
[1] Because student capacity is not anticipated to increase, the Proposed Project would not result in additional trips.

Overlap of Construction and Operational Phases

The South Coast AQMD does not have a significance threshold for construction/operation overlap; therefore, this analysis is included for informational purposes only.

- Table 5.2-16, *Potential Overlap of Construction and Operational Activities (Phase 1)*, shows the maximum daily emissions during an approximately 25-month period where Proposed Project-related Phase 1 operation and Phase 2 construction activities overlap. Based on the development timeline for the Proposed Project, it is anticipated that operation of the new Phase 1 buildings would occur while Phase 2 would undergo construction.

- Table 5.2-17, *Potential Overlap of Construction and Operational Activities (Phases 2 through 4)*, shows the maximum daily emissions for construction and operation activities overlap. Buildout of the Proposed Project would not be complete until 2031. Phase 3 would be constructed while Phase 2 begins operations and Phase 4 would be constructed while Phase 3 begins operations. Because modeling used the worst-case data among Phases 2 through 4, the emissions estimates are conservative.

For purposes of this discussion, the maximum daily combined emissions shown in the table represent a conservative scenario because the maximum daily operational emissions are based on full buildout of the Proposed Project. In reality, if Project-related construction and operation activities were to overlap, only a proportion of the Proposed Project would be operational while the rest is constructed.

Table 5.2-16 Potential Overlap of Construction and Operational Activities (Phase 1)

Source	Maximum Daily Emissions (lbs/day)[1]					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction Phase 2 through 4 Peak Emissions	25	26	21	<1	5	3
Phase 1 Operational Emissions	5	1	1	<1	<1	<1
Maximum Daily Combined Emissions	30	27	22	<1	5	3
South Coast AQMD Regional Threshold	**55**	**55**	**550**	**150**	**150**	**550**
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Version 2020.4. Highest winter or summer emissions are reported.
Notes: lbs: Pounds.
[1] The maximum daily operational emissions are based on full buildout. Therefore, the maximum daily combined emissions represent a conservative scenario because in practice, only a proportion of the allowable land use space would be operating while the rest of the Proposed Project is constructed and fully built out.

Table 5.2-17 Potential Overlap of Construction and Operational Activities (Phases 2 through 4 Operations)

Source	Maximum Daily Emissions (lbs/day)[1]					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction: Phase 2 through 4 Peak Emissions	25	26	21	<1	5	3
Full Buildout Operational Emissions	6	1	1	<1	<1	<1
Maximum Daily Combined Emissions	31	27	22	<1	5	3
South Coast AQMD Regional Threshold	**55**	**55**	**550**	**150**	**150**	**550**
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Version 2020.4. Highest winter or summer emissions are reported.
Notes: lbs: Pounds.
[1] The maximum daily operational emissions are based on full buildout. Therefore, the maximum daily combined emissions represent a conservative scenario because in practice, only a proportion of the allowable land use space would be operating while the rest of the Proposed Project is constructed and fully built out.

Impact 5.2-4: The Proposed Project could expose sensitive receptors to substantial pollutant concentrations during construction. [Threshold AQ-3]

This impact analysis describes changes in localized impacts from short-term construction activities. The Proposed Project could expose sensitive receptors to elevated pollutant concentrations during construction activities if it would cause or contribute significantly to elevated levels. Unlike the mass of emissions shown in the regional emissions analysis shown in Tables 5.2-12 and 5.2-13, which are described in pounds per day, localized concentrations refer to an amount of pollutant in a volume of air (ppm or $\mu g/m^3$) and can be correlated to potential health effects.

Construction-Phase LSTs

Screening-level LSTs (pounds per day) are the amount of Project-related mass emissions at which localized concentrations (ppm or $\mu g/m^3$) could exceed the AAQS for criteria air pollutants for which the SoCAB is designated nonattainment. The screening-level LSTs are based on the Project Site size and distance to the nearest sensitive receptor and are based on the California AAQS, which are the most stringent AAQS, established to protect sensitive receptors most susceptible to respiratory distress.

Table 5.2-18, *Construction Emissions Compared to the Screening-Level LSTs (Phase 1),* shows the Phase 1 maximum daily construction emissions (pounds per day) generated during on-site construction activities compared with the South Coast AQMD's screening-level LSTs, for non-sensitive receptors within 82 feet (25 meters) for NO_x and CO and sensitive receptors within 115 feet (35 meters) of the Project Area for PM_{10} and $PM_{2.5}$.

Table 5.2-18 Construction Emissions Compared to the Screening-Level LSTs (Phase 1)

	Pollutants (lbs/day)[1]			
	NO_X	CO	PM_{10}[2]	$PM_{2.5}$[2]
South Coast AQMD ≤1.00-Acre LST	**103**	**562**	**7.22**	**3.40**
Building and Asphalt Demolition	8	10	0.33	0.31
Building and Asphalt Demolition and Debris Haul	8	10	1.27	0.46

Table 5.2-18 Construction Emissions Compared to the Screening-Level LSTs (Phase 1)

	Pollutants (lbs/day)[1]			
	NO_X	**CO**	**PM_{10}[2]**	**$PM_{2.5}$[2]**
Building and Asphalt Demolition, Debris Haul, and Site Preparation	12	14	1.48	0.65
Utility Trenching	5	7	0.30	0.27
Architectural Coating	1	2	0.06	0.06
Paving	10	15	0.47	0.43
Finishing/Landscaping	1	3	0.07	0.06
Exceeds LST?	No	No	No	No
South Coast AQMD 1.31-Acre LSTs	**117**	**645**	**8.47**	**3.71**
Building Construction 1 2022	16	16	0.81	0.76
Building Construction 1 2023	14	16	0.70	0.66
Building Construction 2 2023	14	16	0.70	0.66
Building Construction 2 2024	13	16	0.61	0.58
Exceeds LST?	No	No	No	No
South Coast AQMD 1.81-Acre LSTs	**139**	**777**	**10.48**	**4.21**
Utility Trenching and Building Construction 1 2022	21	24	1.11	1.03
Building Construction 2023 and Fine Grading	21	20	1.17	0.90
Exceeds LST?	No	No	No	No
South Coast AQMD 2.50-Acre LSTs	**159**	**944**	**13.33**	**4.80**
Rough Grading and Soil Haul (Import/Export)	28	18	4.78	2.67
Exceeds LST?	No	No	No	No

Sources: CalEEMod Version 2020.4., and South Coast AQMD 2008b and 2011.
Notes: In accordance with South Coast AQMD methodology, only onsite stationary sources and mobile equipment occurring on the Project area are included in the analysis. LSTs are based on non-sensitive receptors within 82 feet (25 meters) for NO_x and CO; and sensitive receptors within 115 feet (35 meters) of the Project area for PM_{10} and $PM_{2.5}$ in Source Receptor Area (SRA) 2.
[1] Based on information provided or verified by the District. Where specific information regarding Project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.
[2] Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers.

sTable 5.2-19, *Construction Emissions Compared to the Screening-Level LSTs (Phases 2 through 4),* shows the Phases 2 through 4 maximum daily construction emissions (pounds per day) generated during on-site construction activities compared with the South Coast AQMD's screening-level LSTs, for sensitive receptors within 82 feet (25 meters).

Table 5.2-19 Construction Emissions Compared to the Screening-Level LSTs (Phases 2 through 4)

	Pollutants (lbs/day)[1]			
	NO_X	**CO**	**PM_{10}[2]**	**$PM_{2.5}$[2]**
South Coast AQMD ≤1.00-Acre LST	103	562	4.00	3.00
Building and Asphalt Demolition and Debris Haul	21	20	2.33	1.10
Architectural Coating	1	2	0.05	0.05
Paving	9	15	0.42	0.39
Finishing/Landscaping	1	3	0.06	0.06

Table 5.2-19 Construction Emissions Compared to the Screening-Level LSTs (Phases 2 through 4)

	Pollutants (lbs/day)[1]			
	NO_X	CO	PM_{10}[2]	$PM_{2.5}$[2]
Exceeds LST?	No	No	No	No
South Coast AQMD 1.31-Acre LSTs	**117**	**645**	**4.62**	**3.31**
Building Construction 2024	13	16	0.61	0.58
Building Construction 2025	12	16	0.53	0.50
Building Construction 2026	12	16	0.53	0.50
Exceeds LST?	No	No	No	No
South Coast AQMD 2.50-Acre LSTs	**159**	**944**	**7.16**	**4.33**
Rough Grading and Soil Haul	17	15	3.78	2.13
Exceeds LST?	No	No	No	No

Sources: CalEEMod Version 2020.4 South Coast AQMD 2008b, 2011.
Notes: In accordance with South Coast AQMD methodology, only onsite stationary sources and mobile equipment occurring on the Project area are included in the analysis. LSTs are based on sensitive receptors within 82 feet (25 meters) in Source Receptor Area (SRA) 2.
1 Based on information provided or verified by the District. Where specific information regarding Project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.
2 Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers.

As shown in the tables, construction of the Proposed Project would not generate construction-related on-site emissions that would exceed the screening-level LSTs. Thus, Project-related construction activities would not have the potential to expose sensitive receptors to substantial pollutant concentrations. Therefore, localized air quality impacts from construction activities would be **less than significant**.

Construction Health Risk

The Proposed Project would elevate concentrations of TACs (i.e., DPM) in the vicinity of sensitive land uses during construction activities. Construction modeling considered years 2022-2024 for Phase 1 construction activities and years 2024-2026 to represent the worst-case Phase 2 through 4 activities for the most conservative results. To account for construction from 2024 through 2031 under the program-level analysis of Phases 2 through 4, the emissions from the worst-case construction model were applied to Phases 2 and 3 as well as the two sets of activities for Phase 4.

The nearest sensitive receptors to the Project Site are the on-site students who will be on campus during periods of construction activity and the single-family residence to the northwest on Via Cabrillo Street. Consequently, a site-specific construction HRA of TACs was prepared (see Appendix E). The results of the analysis are shown in Table 5.2-20, *Construction Risk Summary*.

Table 5.2-20 Construction Risk Summary

Receptor	Cancer Risk (per million)	Chronic Hazards
Maximum Exposed Receptor – Off-site Resident	**19.0**	0.082
Maximum Exposed Receptor – On-site Students	**10.3**	0.209
South Coast AQMD Threshold	10	1.0

Table 5.2-20 Construction Risk Summary

Receptor	Cancer Risk (per million)	Chronic Hazards
Exceeds Threshold?	**Yes**	No

Source: Appendix E
Note: Cancer risk calculated using 2015 OEHHA HRA guidance.

The results of the HRA are based on the maximum receptor concentration over an approximately nine-year construction exposure duration for off-site receptors.

- Cancer risk for the maximum exposed off-site resident from construction activities related to the Proposed Project were calculated to be 19.0 in a million and would exceed the 10 in a million-significance threshold.
- Cancer risk for the maximum exposed on-site student receptor from construction activities would be 10.3 in a million and would also exceed the 10 in a million-significance threshold.
- For non-carcinogenic effects, the chronic hazard index identified for each toxicological endpoint totaled less than one for all the off-site sensitive receptors. Therefore, chronic non-carcinogenic hazards are less than significant.

As discussed in Section 5.2.3.1, *Methodology,* it was conservatively assumed that the residents and on-site students were outdoors 8 hours a day, 260 construction days per year, and exposed to all of the daily construction emissions. Because cancer risks for the off-site residential MER and the student MER would exceed South Coast AQMD significance threshold, construction activities associated with the Proposed Project are **potentially significant.** Mitigation Measure AQ-1 in Section 5.2.4 would ensure that air quality-related impacts associated with health risk in sensitive populations would be reduced.

Impact 5.2-5: The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations during operation. [Threshold AQ-3]

This impact analysis describes changes in localized impacts from long-term operational activities. The Proposed Project could expose sensitive receptors to elevated pollutant concentrations during operation of the Proposed Project if it would cause or contribute significantly to elevated levels. Overall, implementation of the Proposed Project would not result in any changes to the Project Site's current operations for school use.

Operational Phase LSTs

Operation of the Proposed Project would not generate substantial quantities of emissions from on-site, stationary sources. Land uses that have the potential to generate substantial stationary sources of emissions require a permit from South Coast AQMD, such as chemical processing or warehousing operations where substantial truck idling could occur on-site. Emissions from uses such as chemistry labs would be minimal and would not be greater than emissions from current uses on-site. Overall, the Proposed Project does not fall within these categories of uses. Therefore, net localized air quality impacts from Proposed Project-related operations would be **less than significant**.

Operational Health Risk – Bus Barn

A potential source of TACs from operation of the Proposed Project would be from school buses associated with the relocated bus barn. As noted in MATES V previously, regional DPM emissions represent approximately 72 percent of the potential health risk from air toxics. However, the District bus fleet is not diesel fueled, but consists of 8 compressed natural gas (CNG) buses and 17 gasoline buses. In general, the TACs emitted from CNG and gasoline-fueled vehicle produce much lower health risks than diesel-fueled vehicles despite that gasoline vehicles account for over 95 percent of the vehicle population in Los Angeles County (CARB 2021c). In addition, the Proposed Project would not increase the amount of bus activity occurring at the relocated bus barn.

Therefore, the Proposed Project would not expose sensitive receptors to substantial concentrations of TACs during operation. Impacts would be **less than significant**.

Carbon Monoxide Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. The SoCAB has been designated in attainment of both the National and California AAQS for CO. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—to generate a significant CO impact (BAAQMD 2017). As described in the Proposed Project's Transportation Impact Analysis (Appendix L), the Proposed Project would generate a net increase of 651 AM peak-hour trips, which is substantially below the incremental increase in peak-hour vehicle trips needed to generate a significant CO impact. Implementation of the Proposed Project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the Project Site. Impacts would be **less than significant**.

5.2.4 Mitigation Measures

Impact 5.2-4

AQ-1 Construction bids for Phase 1 through 4 activities at the Project Site shall specify use of off-road equipment that meets the United States Environmental Protection Agency (US EPA) Tier 4 interim emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower, unless it can be demonstrated that such equipment is not available. In the event the equipment is not available, as demonstrated by the contractor, Tier 3 equipment retrofitted with a California Air Resources Board's Level 3 Verified Diesel Emissions Control Strategy (VDECS) shall be used. The following shall be specified in the construction bid:

- Construction contractors shall use engines that meet US EPA Tier 4 Interim emission standards for equipment over 50 horsepower.

- Construction contractors shall maintain a list of all operating equipment in use on the Project Site in use for more than 20 hours for verification by the District. The construction equipment list shall state the makes, models, and number of construction equipment on-site.

- Construction contractors shall ensure that all equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations.

- Construction contractors shall communicate with all sub-contractors in contracts and construction documents that all non-essential idling of construction equipment is restricted to five minutes or less in compliance with CARB Rule 2449. Construction contractors shall be responsible for ensuring that this requirement is met.

5.2.5 Level of Significance After Mitigation

Impact 5.2-4

As seen in Table 5.2-21, *Construction Risk Summary with Mitigation*, Mitigation Measure AQ-1 would reduce potential impacts associated with air quality below the South Coast AQMD cancer risk threshold of 10 in a million. Therefore, the Proposed Project would not expose off-site nor on-site sensitive receptors to substantial concentrations of air pollutant emissions during construction and impacts would be reduced to a level that is less than significant with mitigation. Therefore, no significant unavoidable adverse impacts relating to air quality have been identified.

Table 5.2-21 Construction Risk Summary with Mitigation

Receptor	Cancer Risk (per million)[1]	Chronic Hazards
Maximum Exposed Receptor – Off-site Resident	2.4	0.010
Maximum Exposed Receptor – On-site Student	1.4	0.029
South Coast AQMD Threshold	10	1.0
Exceeds Threshold?	No	No

Source: Appendix E
Note: Cancer risk calculated using 2015 OEHHA HRA guidance.
[1] Risks incorporate Mitigation Measure AQ-1, which includes using construction equipment which meets US EPA Tier 4 Interim engine requirements for equipment over 50 horsepower. Note, equipment meeting Tier 4 interim standards typically reduce DPM emissions by over 90 percent, whereas equipment meeting Tier 3 engine requirements with added Level 3 Verified Diesel Emissions Control Strategy (VDECS) typically reduce DPM emissions by 85 percent (CARB 2021d). Based on the results of the Construction HRA, use of Tier 3 engine requirements with added Level 3 VDECS would also mitigate health risks to nearby sensitive receptors.

5.2.6 Cumulative Impacts

In accordance with South Coast AQMD's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Consistent with the methodology, projects that do not exceed the regional significance thresholds or localized significance thresholds would not result in significant cumulative impacts. In addition, projects that do not exceed the cancer risk or chronic hazard thresholds based on the latest guidance from OEHHA (2015) would not result in significant cumulative impacts. Cumulative projects in the local area include new development and general growth in the Project Area. The greatest source of emissions in the SoCAB is mobile sources. Due to the extent of the area potentially impacted by cumulative emissions (i.e., the SoCAB), South Coast AQMD considers a project cumulatively significant when project-related emissions exceed the South Coast AQMD regional emissions thresholds shown in Table 5.2-5 or risk threshold in Table 5.2-9 (South Coast AQMD 1993).

Construction

The SoCAB is designated nonattainment for O_3 and $PM_{2.5}$ under the California and National AAQS and nonattainment for PM_{10} and lead (Los Angeles County only) under the National AAQS. Construction of cumulative projects would further degrade the regional and local air quality. As shown in Impact 5.2-2, Project-related construction activities would not generate short-term emissions that would exceed the South Coast AQMD regional emissions thresholds. However, construction of the Proposed Project would exceed the cancer risk threshold during Phase 1 construction activities and overall worst-case Phase 2 through 4 activities. Therefore, the Proposed Project's contribution to cumulative air quality impacts would be cumulatively considerable. However, with incorporation of mitigation, Project-related construction emissions would be reduced to below the cancer risk threshold and construction-related cumulative impacts would be reduced to less than significant.

Operation

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values would not be considered by South Coast AQMD to be a substantial source of air pollution and does not add significantly to a cumulative impact. Because implementation of the Proposed Project would not result in an increase in student capacity, it would not generate additional mobile emissions. Operation of the Proposed Project would not result in emissions in excess of the South Coast AQMD regional emissions thresholds. Therefore, the Proposed Project's contribution to cumulative air quality impacts would not be cumulatively considerable.

5.2.7 References

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5.3 BIOLOGICAL RESOURCES

This section of the Draft Environmental Impact Report (DEIR) evaluates the Malibu Middle and High School (MMHS) Campus Specific Plan Project's (Proposed Project) potential impacts on biological resources near or within the Project Site.

The analysis in this section is based in part on the following technical report(s):

- *Biological Assessment Report (Biological Report), Malibu Middle and High School Campus Specific Plan and LCP Amendment Project in Malibu, Los Angeles County, California*, Psomas, September 2021.
- *Conceptual Plant Palette for Restoration of the Environmentally Sensitive Habitat Area Memorandum*, Psomas, March 2021
- *Jurisdictional Delineation Report*, Psomas, September 2021.
- *Tree Evaluation Report,* Psomas, May 18, 2021

A complete copy of these technical reports is provided in Appendix C of this DEIR.

In response to the to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project, one comment letter from the County of Los Angeles Fire Department (LACoFD) was received, that address biological resource topics. The comment letter discusses the concerns regarding removal or relocation or Oak Trees near the Project Site. The IS/NOP and all scoping comment letters are included as Appendices B and C to this document.

5.3.1 Environmental Setting

5.3.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to biological resources that are applicable to the Proposed Project are summarized below.

Federal

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, protects and conserves any species of plant or animal that is endangered or threatened with extinction, as well as the habitats where these species are found. "Take" of endangered species is prohibited under Section 9 of the FESA. "Take" means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Section 7 of the FESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) on proposed federal actions that may affect any endangered, threatened, or proposed (for listing) species or critical habitat that may support the species. Section 4(a) of the FESA requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened." This provides guidance for planners/managers and biologists by indicating locations of suitable habitat and where preservation of a particular species has high priority. Section 10 of the FESA provides the

regulatory mechanism for incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCPs) for the impacted species must be developed in support of incidental take permits to minimize impacts to the species and formulate viable mitigation measures.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 affirms and implements the United States' commitment to four international conventions—with Canada, Japan, Mexico, and Russia—to protect shared migratory bird resources. The MBTA governs the take, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these items, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the MBTA.

Clean Water Act, Section 404

The United States Army Corps of Engineers (USACE) regulates discharge of dredged or fill material into "waters of the United States."[1] Any filling or dredging within waters of the United States requires a permit, which entails assessment of potential adverse impacts to Corps wetlands and jurisdictional waters and any mitigation measures that the Corps requires. Section 7 consultation with USFWS may be required for impacts to a federally listed species. If cultural resources may be present, § 106 review may also be required. When a § 404 permit is required, a § 401 Water Quality Certification is also required from the Regional Water Quality Control Board (RWQCB).

Clean Water Act, Sections 401and 402

Section 401(a)(1) of the Clean Water Act (CWA) specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency with a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring § 401 certification include Corps § 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the U.S. Environmental Protection Agency (EPA) under § 402 of the CWA. NPDES permits are issued by the applicable RWQCB. The City of Malibu is in the jurisdiction of the Santa Ana RWQCB (Region 8).

U.S. Army Corp of Engineers

The USACE Regulatory Branch regulates activities that discharge dredged or fill materials into waters of the United States (WOTUS) under § 404 of the Federal CWA and § 10 of the Rivers and Harbors Act. Its authority

[1] "Waters of the United States," as applied to the jurisdictional limits of the Corps under the Clean Water Act, includes all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the tide; all interstate waters, including interstate wetlands; and all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds whose use, degradation, or destruction could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; and wetlands adjacent to waters. The terminology used by Section 404 of the Clean Water Act includes "navigable waters," which is defined at Section 502(7) of the act as "waters of the United States, including the territorial seas."

applies to all WOTUS where the material (1) replaces any portion of a water of the United States with dry land or (2) changes the bottom elevation of any portion of any WOTUS. Activities that result in fill or dredge of WOTUS require a permit from the USACE. To be considered WOTUS, a feature must be a Traditional Navigable Water (TNW),1 an interstate water, a territorial sea, or an impoundment of these waters, or have a connection to a TNW (whether as a tributary or as an adjacent wetland).

State

California Fish and Game Code, Section 1600

Section 1600 of the California Fish and Game Code requires a project proponent to notify the California Department of Fish and Wildlife (CDFW) of any proposed alteration of streambeds, rivers, and lakes. The intent is to protect habitats that are important to fish and wildlife. CDFW may review and place conditions on the project, as part of a Streambed Alteration Agreement (SAA), that address potentially significant adverse impacts within CDFW's jurisdictional limits.

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or memorandum of understanding (MOU). In addition, some sensitive mammals and birds are protected by the state as "fully protected species." California "species of special concern" are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's California Natural Diversity Database (CNDDB), which maintains a record of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se but warrant consideration in the preparation of biological resources assessments.

California Environmental Quality Act

State law (California Fish and Game Code § 1802) confers upon the CDFW the trustee responsibility and authority for the public trust resource of wildlife in California. The CDFW may play various roles under the CEQA process. By State law, the CDFW has jurisdiction over the conservation, protection, and management of the wildlife, native plants, and habitat necessary to maintain biologically sustainable populations. The CDFW is responsible for consulting with CEQA lead and responsible agencies and provides the requisite biological expertise to review and comment upon environmental documents and impacts arising from Project activities.

As a trustee agency, the CDFW has jurisdiction over certain resources held in trust for the people of California. Trustee agencies are generally required to be notified of CEQA documents relevant to their jurisdiction, whether or not these agencies have actual permitting authority or approval power over aspects of the underlying

project (14 California Code of Regulations § 15386). The CDFW, as a trustee agency, must be notified of CEQA documents regarding projects involving fish and wildlife of the State, as well as Rare and Endangered native plants, wildlife areas, and ecological reserves. Although, the CDFW, as a trustee agency, cannot approve or disapprove a project, CEQA lead and responsible agencies are required to consult with the CDFW. The CDFW, as the trustee agency, has the authority to make recommendations regarding those resources held in trust for the people of California (California Fish and Game Code § 1802).

Lake and Streambed Alteration Program

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that support wildlife resources and/or riparian vegetation are subject to CDFW regulations, pursuant to §§ 1600 through 1616 of the California Fish and Game Code. Under § 1602, it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by CDFW as waters within their jurisdiction without first notifying CDFW of such activity. Additionally, a person cannot use any material from the streambeds without first notifying the CDFW of such activity. For a project that may affect stream channels and/or riparian vegetation regulated under §§ 1600 through 1616 of the California Fish and Game Code, CDFW authorization is required in the form of a Streambed Alteration Agreement.

California Department pf Fish and Wildlife

The CDFW regulates activities that may affect rivers, streams, and lakes pursuant to the California Fish and Game Code (§§1600–1616). According to § 1602 of the California Fish and Game Code, the CDFW has jurisdictional authority over any work that will (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

California Coastal Act

Under authority of the California Coastal Act, the California Coastal Commission (CCC), in partnership with coastal cities and counties, plans and regulates the use of land and water in the Coastal Zone, an area covering a 3-mile-wide band of ocean and extending inland from the mean high tide line to a variable distance based on surrounding land cover. Development in the Coastal Zone requires a Coastal Development Permit (CDP) issued by either the CCC or a local government with a certified Local Coastal Program (LCP).

The City of Malibu has a certified LCP that provides for protection and preservation of environmentally sensitive habitat areas (ESHAs). An ESHA is defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem which could be easily disturbed or degraded by human activities and developments." ESHAs include rare or valuable habitat, habitat that contributes to the viability of plant or animal species that are designated or are candidates for listing under State or Federal law, habitat that contributes to the viability of species that are designated as "fully protected" or "species of special concern" under State law, habitat that contributes to the viability of species

for which there is other compelling evidence of rarity (e.g., species with a California Rare Plant Rank of 1 or 2), designated Areas of Special Biological Significance or Marine Protected Area, and Streams.

Native Plant Protection Act

The Native Plant Protection Act (California Fish and Game Code, § 1900 et seq.) provides for the preservation, protection, and enhancement of Endangered or Rare native plants in California. These sections also allow for the adoption of regulations governing the taking, possession, propagation, transportation, exportation, importation, or sale of any Endangered or Rare native plants.

California Fully Protected Species

Bird, mammal, reptile, amphibian, and fish species are defined as California Fully Protected Species in §§ 3511, 4700, 5050, and 5515 of the California Fish and Game Code. Fully protected animals may not be harmed, taken, or possessed.

Nesting Bird Protection

Nesting birds are protected in §§ 3503, 3503.5, and 3513 of the California Fish and Game Code. These sections state that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by or any regulation made pursuant to this code. Section 3503.5 explicitly provides protection for all birds of prey, including their eggs and nests. Section 3513 makes it unlawful to take or possess any migratory non-game bird as designated in the MBTA.

Threatened and Endangered Species

The California Code of Regulations (§§ 670.2 and 670.5) lists species, subspecies, and varieties of plants (§ 670.2) and animals (§ 670.5) that are designated as Threatened or Endangered (as defined by § 2067 of the California Fish and Game Code) or Rare (as defined by § 1901 of the California Fish and Game Code) in California.

California Porter-Cologne Water Quality Control Act

Pursuant to the California Porter-Cologne Water Quality Control Act, the State Water Resources Control Board (SWRCB) and the 9 RWQCBs may require permits (known as "Waste Discharge Requirements" [WDRs]) for the fill or alteration of the "Waters of the State". The term "Waters of the State" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code § 13050[e]). The State and Regional Boards have interpreted their authority to require WDRs to extend to any proposal to fill or alter "Waters of the State", even if those same waters are not under USACE jurisdiction. Pursuant to this authority, the State and Regional Boards may require the submission of a "report of waste discharge" under § 13260 of the California Water Code, which is treated as an application for WDRs.

Regional

Regional Water Quality Control Board

The SWRCB, in conjunction with the nine RWQCBs, is the primary agency responsible for protecting water quality in California through the regulation of discharges to surface waters under the CWA and the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The SWRCB's and RWQCBs' jurisdictions extend to all WOTUS, but also to waters of the State that are outside federal jurisdiction, including wetlands.

On August 28, 2019, the Office of Administrative Law (OAL) approved the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to waters of the State. The procedures will go into effect on May 28, 2020. Under these new regulations, the SWRCB and its nine RWQCBs will assert jurisdiction over all existing WOTUS, and all waters that would have been considered WOTUS under the 2015 Rule. Thus, the WOTUS that would no longer be under USACE jurisdiction would be under SWRCB jurisdiction.

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

Chapter 3 - Marine And Land Resources

The LUP identifies the following policies related to biological resources (City of Malibu 2002b, City of Malibu 2021a).

Land Resources

A. ESHA Designation

- **LUP Policy 3.1 -** Areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments are Environmentally Sensitive Habitat Areas (ESHAs) and are generally shown on the LUP ESHA Map. The ESHAs in the City of Malibu are riparian areas, streams, native woodlands, native grasslands/savannas, chaparral, coastal sage scrub, dunes, bluffs, and wetlands, unless there is site-specific evidence that establishes that a habitat area is not especially valuable because of its special nature or role in the ecosystem. Regardless of whether streams and wetlands are designated as ESHA, the policies and standards in the LCP applicable to streams and wetlands shall apply. Existing,

legally established agricultural uses, confined animal facilities, and fuel modification areas required by the Los Angeles County Fire Department for existing, legal structures do not meet the definition of ESHA.

B. ESHA Protection

- **LUP Policy 3.8** - Environmentally Sensitive Habitat Areas (ESHAs) shall be protected against significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

- **LUP Policy 3.9** - Public accessways and trails are considered resource dependent uses. Accessways and trails located within or adjacent to ESHA shall be sited to minimize impacts to ESHA to the maximum extent feasible. Measures, including but not limited to, signage, placement of boardwalks, and limited fencing shall be implemented as necessary to protect ESHA.

- **LUP Policy 3.10** - If the application of the policies and standards contained in this LCP regarding use of property designated as Environmentally Sensitive Habitat Area, including the restriction of ESHA to only resource-dependent use, would likely constitute a taking of private property, then a use that is not consistent with the Environmentally Sensitive Habitat Area provisions of the LCP shall be allowed on the property, provided such use is consistent with all other applicable policies and is the minimum amount of development necessary to avoid a taking.

- **LUP Policy 3.11** - Applications for development of a non-resource dependent use within ESHA or for development that is not consistent with all ESHA policies and standards of the LCP shall demonstrate the extent of ESHA on the property.

- **LUP Policy 3.12** - No development shall be allowed in wetlands unless it is authorized under Policy 3.89. For all ESHA other than wetlands, the allowable development area (including the building pad and all graded slopes, if any, as well any permitted structures) on parcels where all feasible building sites are ESHA or ESHA buffer shall be 10,000 square feet or 25 percent of the parcel size, whichever is less. If it is demonstrated that it is not feasible from an engineering standpoint to include all graded slopes within the approved development area, then graded slope areas may be excluded from the approved development area. For parcels over 40 acres in size, the maximum development area may be increased by 500 sq. ft. for each additional acre in parcel size to a maximum of 43,560-sq. ft. (1 acre) in size. The development must be sited to avoid destruction of riparian habitat to the maximum extent feasible. These development areas shall be reduced, or no development shall be allowed, if necessary to avoid a nuisance, as defined in California Civil Code Section 3479. Mitigation of adverse impacts to ESHA that cannot be avoided through the implementation of siting and design alternatives shall be required.

- **LUP Policy 3.13** - The allowable development area may be increased for projects that comprise two or more legal lots, if the existing lots are merged into one lot and one consolidated development area is provided with one access road or driveway. The allowable development area shall not exceed the total of the development areas allowed for each individual parcel in Policy 3.12.

- **LUP Policy 3.14** - New development shall be sited and designed to avoid impacts to ESHA. If there is no feasible alternative that can eliminate all impacts, then the alternative that would result in the fewest or least

significant impacts shall be selected. Impacts to ESHA that cannot be avoided through the implementation of siting and design alternatives shall be fully mitigated, with priority given to on-site mitigation. Off-site mitigation measures shall only be approved when it is not feasible to fully mitigate impacts on-site or where off-site mitigation is more protective in the context of a Natural Community Conservation Plan that is certified by the Commission as an amendment to the LCP. Mitigation shall not substitute for implementation of the project alternative that would avoid impacts to ESHA.

- **LUP Policy 3.15** - Mitigation measures for impacts to ESHA that cannot be avoided through the implementation of siting and design alternatives, including habitat restoration and/or enhancement shall be monitored for a period of no less than five years following completion. Specific mitigation objectives and performance standards shall be designed to measure the success of the restoration and/or enhancement. Mid-course corrections shall be implemented if necessary. Monitoring reports shall be provided to the City annually and at the conclusion of the five-year monitoring period that document the success or failure of the mitigation. If performance standards are not met by the end of five years, the monitoring period shall be extended until the standards are met. However, if after ten years, performance standards have still not been met, the applicant shall submit an amendment proposing alternative mitigation measures.

- **LUP Policy 3.18** - Except as permitted pursuant to this provision or Policy 3.20, throughout the City of Malibu, development that involves the use of pesticides, including insecticides, herbicides, rodenticides or any other similar toxic chemical substances, shall be prohibited in cases where the application of such substances would have the potential to significantly degrade Environmental Sensitive Habitat Areas or coastal water quality or harm wildlife. Herbicides may be used for the eradication of invasive plant species or habitat restoration, but only if the use of non-chemical methods for prevention and management such as physical, mechanical, cultural, and biological controls are infeasible. Herbicides shall be restricted to the least toxic product and method, and to the maximum extent feasible, shall be biodegradable, derived from natural sources, and used for a limited time. The City will identify non-toxic and earth-friendly management techniques for controlling pests and will conduct public outreach to promote the use of such techniques on property with the City.

- **LUP Policy 3.19** - The use of insecticides, herbicides, or other toxic substances by City employees and contractors in construction and maintenance of City facilities shall be minimized.

- **LUP Policy 3.20** - Mosquito abatement within or adjacent to ESHA shall be limited to the implementation of the minimum measures necessary to protect human health, and shall minimize adverse impacts to ESHA.

- **LUP Policy 3.21** - Wildfire burn areas shall be allowed to revegetate naturally, except where re-seeding is necessary to minimize risks to public health or safety. Where necessary, re-seeding shall utilize a mix of native plant seeds appropriate for the site and collected in a similar habitat within the same geographic region, where feasible. Wildfire burn area that were previously subject to fuel modification or brush clearance for existing structures, pursuant to the requirements of the Los Angeles County Fire Department, may be revegetated to pre-fire conditions.

C. Areas Adjacent to ESHA and Parks

- **LUP Policy 3.23** - Development adjacent to ESHAs shall minimize impacts to habitat values or sensitive species to the maximum extent feasible. Native vegetation buffer areas shall be provided around ESHAs to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the ESHA they are designed to protect. All buffers shall be a minimum of 100 feet in width, except for the case addressed in Policy 3.27.

- **LUP Policy 3.24** - New development adjacent to parklands, where the purpose of the park is to protect the natural environment and ESHA, shall be sited and designed to minimize impacts to habitat and recreational opportunities, to the maximum extent feasible. Natural vegetation buffer areas shall be provided around parklands. Buffers shall be of a sufficient size to prevent impacts to parkland resources, but in no case shall they be less than 100 feet in width.

- **LUP Policy 3.25** - New development, including, but not limited to, vegetation removal, vegetation thinning, or planting of non-native or invasive vegetation shall not be permitted in required ESHA or park buffer areas, except for that case addressed in Policy 3.27. Habitat restoration and invasive plant eradication may be permitted within required buffer areas if designed to protect and enhance habitat values.

- **LUP Policy 3.26** - Required buffer areas shall extend from the following points:

  a. The outer edge of the canopy of riparian vegetation for riparian ESHA.
  b. The outer edge of the tree canopy for oak or other native woodland ESHA.
  c. The top of bluff for coastal bluff ESHA. (Resolution No. 07-04)

- **LUP Policy 3.27** - Buffers shall be provided from coastal sage scrub and chaparral ESHA that are of sufficient width to ensure that no required fuel modification (Zones A, B, or C, if required) will extend into the ESHA and that no structures will be within 100 feet of the outer edge of the plants that comprise the habitat.

- **LUP Policy 3.31** - Permitted development located within or adjacent to ESHA and/or parklands that adversely impact those areas may include open space or conservation restrictions or easements over ESHA, ESHA buffer, or parkland buffer in order to protect resources.

G. New Development

- **LUP Policy 3.51** - Disturbed areas ESHAs shall not be further degraded, and if feasible, restored. If new development removes or adversely impacts native vegetation, measures to restore any disturbed or degraded habitat on the property shall be included as mitigation.

- **LUP Policy 3.53** - Fencing or walls shall be prohibited within riparian, bluff, Point Dume canyon or dune ESHA, except where necessary for public safety or habitat protection or restoration. Fencing or walls that do not permit the free passage of wildlife shall be prohibited in any wildlife corridor

- **LUP Policy 3.54** - Development permitted pursuant to Policy 3.10 within coastal sage scrub or chaparral ESHA may include fencing, if necessary for security, that is limited to the area around the clustered development area. Any such fencing shall be sited and designed to be wildlife permeable.

- **LUP Policy 3.55** - Fencing adjacent to ESHA shall be sited and designed to be wildlife permeable, enabling wildlife to pass through.

- **LUP Policy 3.56** - Exterior night lighting shall be minimized, restricted to low intensity fixtures, shielded, and directed away from ESHA in order to minimize impacts on wildlife. High intensity perimeter lighting and lighting for sports courts or other private recreational facilities in ESHA, ESHA buffer, or where night lighting would increase illumination in ESHA is prohibited.

Local Coastal Program's Local Implementation Plan

The LIP was adopted by the CCC on September 13, 2002, pursuant to the provisions of California PRC § 30166.5. The stated purpose of the Plan is to implement the policies of the California Coastal Act of 1976, to carry out the policies of the City of Malibu Land Use Plan, and, in part, to:

- Assure orderly, balanced utilization and conservation of coastal zone resources, considering the social and economic needs of the people of this City and of the State.

- Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and manmade resources.

- To protect and enhance the quality of the natural environment.

- To ensure that any development in the coastal zone preserves and enhances coastal resources; and protects coastal views and access; and guides growth, development, and environmental management in a manner consistent with the provisions of the Land Use Plan of the Local Coastal Program.

- To provide adequate light and air, clean ground water, and non-polluting waste disposal.

The Proposed Project's Biological Report was drafted in accordance with the requirements of the City of Malibu Local Coastal Program Local Implementation Plan for projects with potential for sensitive species or habitat, or if the proposed development (including required fuel modification) occurs within 200 feet of a known (mapped) ESHA.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 3. Conservation Element

The Conservation Element serves as a guide for the conservation, protection, restoration and management, development, and appropriate and responsible utilization of the City's existing natural resources. The City of Malibu has established goal and policies to protect these resources, which address a variety of natural resource issues that include water quality, coastal and slope erosion, maintenance of unique plant communities, habitat protection, and viable populations of plants and wildlife, and preservation of visual resources. The following goal and policies in the Conservation Element are relevant to the Proposed Project:

CON GOAL 1: Natural Resources Preserved And Protected

- **CON OBJECTIVE 1.1:** Natural Resources Managed In Accordance With This Comprehensive Natural Resources Protection And Management Plan.
  - **CON Policy 1.1.1**: The City shall minimize disruption of natural systems and areas rich in biodiversity and avoid consumption of ecologically sensitive lands (e.g., Resource Protection Areas (RPAs) including ESHAs, significant watersheds, wildlife habitat linkages, disturbed sensitive resource areas, blueline streams and significant oak woodlands as designated on Figures CO-3 and CO-4 and Table 3-5).
  - **CON Policy 1.1.2**: The City shall protect riparian areas and undisturbed areas within significant watersheds and wildlife habitat linkages through the use of open space or conservation easements or equivalent measures.
  - **CON Policy 1.1.4**: The City shall protect Environmentally Sensitive Habitat Areas (ESHAs) as a priority over development and against any significant disruption of habitat values.
  - **CON Policy 1.1.6**: The City shall restore Disturbed Sensitive Resource Areas (DSRAs), to the extent feasible and ecologically desirable.
  - **CON Policy 1.1.8**: The City shall protect land formations and soils by avoiding vegetation removal in RPAs and in other areas of high potential erosion hazard.
- **CON OBJECTIVE 1.2:** Wildlife And Biota Resources Preserved, Protected And Reclaimed.
  - **CON Policy 1.2.1:** The City shall preserve wildlife habitats and habitat linkages.
  - **CON Policy 1.2.2:** The City shall protect, preserve and reclaim very threatened plant community types that occur in Malibu, as inventoried by the Department of Fish and Game (See Table 3-3) with special emphasis on these: Southern Coastal Bluff Scrub; Southern Dune Scrub; Valley Needlegrass Grassland; Southern Foredunes (Broadbeach); Venturan Coastal Sage Scrub; Coastal Brackish Marsh (Malibu Creek and Lagoon); Coastal and Valley Freshwater Marsh; Southern Willow Scrub; California Walnut Woodland; and Valley Oak Woodland.
  - **CON Policy 1.2.3:** The City shall mitigate net loss of very threatened plant communities.

- **CON Policy 1.2.4:** The City shall regulate removal of vegetation in ESHAs.
- **CON Policy 1.2.6:** The City shall discourage the use of insecticides, herbicides or toxic chemical substances (excepting non-regulated home pesticides) within the City or if ESHAs, raptors and other animals could be adversely affected, except in an emergency which threatens wildlife or the habitat itself.
- **CON Policy 1.2.7:** The City shall reduce impacts resulting from night lighting so as not to disturb natural habitats.
- **CON Policy 1.2.9:** The City shall apply setback requirements, determined by site specific analysis, to new septic systems for protection of oak and riparian woodlands, and to prevent lateral seepage into stream or coastal waters.

5.3.1.2 EXISTING CONDITIONS

This section, derived from the Proposed Project's Biological Report, describes the biological resources that occur or potentially occur on the Project Site or within nearby off-site areas associated with the Proposed Project.

Existing Land Uses

The Biological Study Area (BSA) is located within the City of Malibu, within the Santa Monica Bay Watershed on the U.S. Geological Survey's (USGS') Point Dume 7.5-minute topographic quadrangle map in Township 02S, Range 19W, § 01. The BSA encompasses approximately 87 acres over nine parcels, and it includes the entire campus, which is landscaped with typical ornamental groundcovers, shrubs, and trees. The parcels also include the existing Malibu Equestrian Park in the eastern part of the BSA, the existing MMHS campus in the center, and the former Juan Cabrillo Elementary School (JCES) campus in the west. The athletic field on the MMHS is vegetated with turf grasses and ornamental species, and the slopes surrounding the athletic field are vegetated with ruderal species and disturbed coastal sage scrub. Open space areas to the north and east of the campus support disturbed coastal sage scrub, coastal sage scrub, ruderal vegetation, and disturbed/developed land. Areas to the south and west include disturbed/ developed land. The Malibu Equestrian Center consists of parking areas and two small horse arenas. Surrounding land uses include rural residential detached single-family housing. These parcels are primarily developed with large homes on lots two or more acres in size. The northwest edge borders along a drainage feature which is also an ESHA.

Topographically, the Project Site is situated on the southern flanks of the western portion of the Santa Monica Mountains amongst rolling hills. The campus consists of several terraces with generally ascending slopes to the north and descending slopes to the Pacific Coast Highway (PCH) to the south. A total of four drainages and one basin occurs in the Survey Area. Topography on the BSA is hilly with elevations ranging from approximately 90 to 210 feet above mean sea level (msl).

Vegetation Communities

The BSA is comprised primarily of developed and non-native habitats, with some patchy native scrub habitat occurring scattered around the perimeter and center portions. Woodlands are also present on site, which consist of native plantings (California sycamore and coast live oak), and non-native eucalyptus plantings in the southeastern portion of the Survey Area. A small patch of arroyo willow thicket also occurs in the southeastern portion of the Survey Area.

The following vegetation types and other areas occur in the BSA: California sagebrush scrub, coyote brush – California sagebrush scrub, coyote brush – California sagebrush scrub/upland mustards, coyote brush – California sagebrush scrub/annual grassland, disturbed coyote brush – California sagebrush scrub, upland mustards, disturbed wild oats and annual brome grassland, riparian herb, arroyo willow thicket, eucalyptus grove, California sycamore – coast live oak planting, ornamental – native planting, turf, developed/ornamental, and disturbed. The coverage and sensitivity status of these vegetation communities are further described in Table 5.3-1, *Vegetation Types and Other Areas in the Study Area*, and shown on Figure 5.3-1, *Vegetation types and Other Areas*. Vegetation was mapped in the field by a qualified biologist on an aerial photograph at a scale of 1-inch equals 200 feet (1"=200').

Table 5.3-1 Vegetation Types and Other Areas in the Study Area

Vegetation Type or Other Area	Amount in BSA (acres)	Sensitive Natural Community
California Sagebrush Scrub	0.72	No
Coyote Brush – California Sagebrush Scrub	0.54	No
Coyote Brush – California Sagebrush Scrub/Upland Mustards	21.12	No
Coyote Brush – California Sagebrush Scrub/Annual Grassland	1.53	No
Disturbed Coyote Brush – California Sagebrush Scrub	1.45	No
Upland Mustards	5.45	No
Disturbed Upland Mustards	4.82	No
Disturbed Wild Oats and Annual Brome Grassland	2.17	No
Riparian Herb	0.11	No[b]
Arroyo Willow Thicket	0.40	Yes
Eucalyptus Grove	0.38	No
California Sycamore – Coast Live Oak Planting	0.55	No[c]
Ornamental – Native Planting	2.18	No[d]

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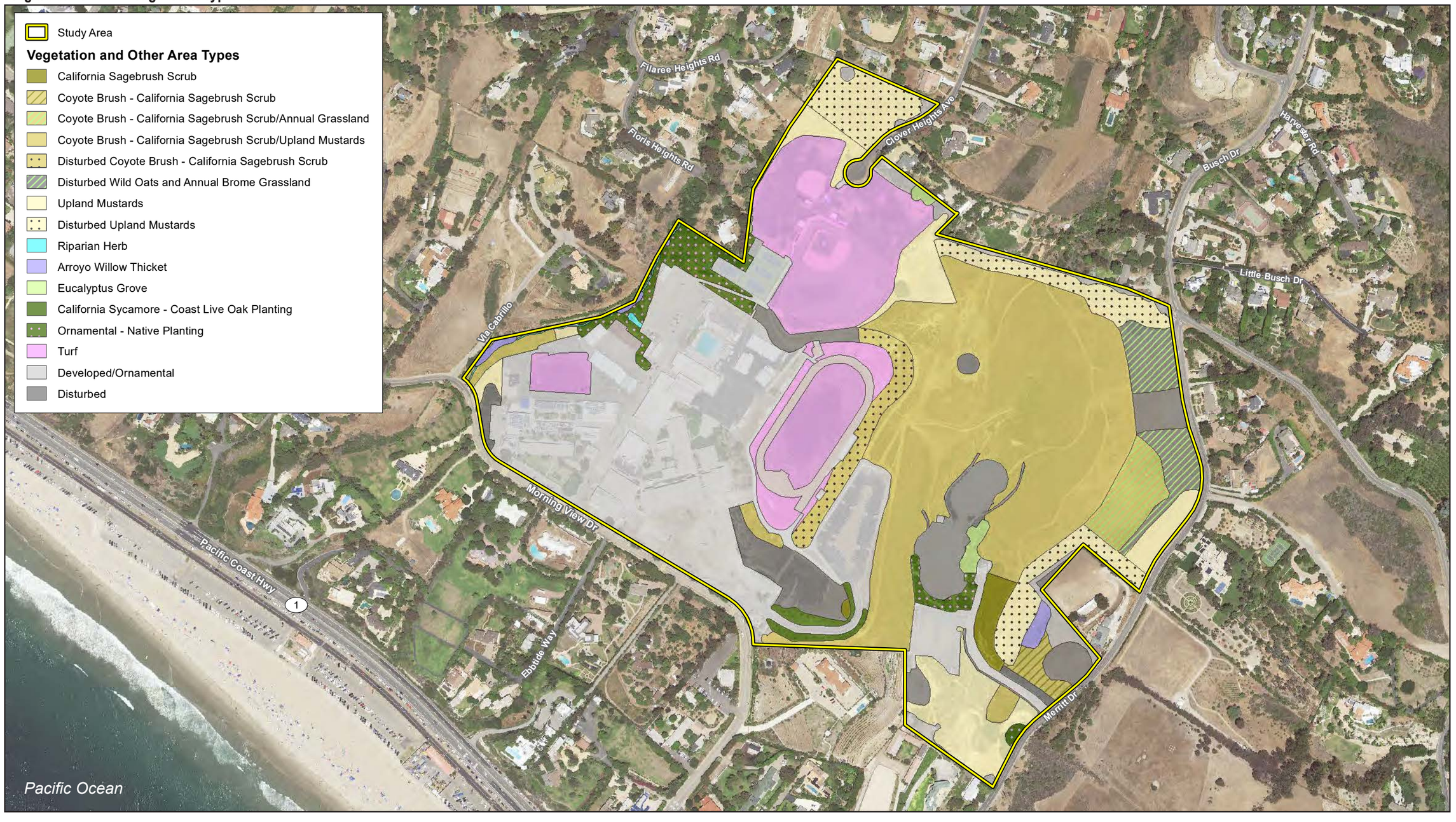
Table 5.3-1 Vegetation Types and Other Areas in the Study Area

Vegetation Type or Other Area	Amount in BSA (acres)	Sensitive Natural Community
Turf	11.86	No
Developed/Ornamental	26.98	No
Disturbed	6.42	No
Total	86.69	

[a] As determined by CDFW (2021a).
[b] While the riparian herb vegetation along the drainage may be considered part of the *Salix lasiolepis* Association, these areas currently do not support a willow canopy and may not be considered sensitive by the CDFW (2021a). The *Typha* Association is not considered sensitive.
[c] While the *Platanus racemosa – Quercus agrifolia* Association is considered sensitive by the CDFW (2021a), the on-site vegetation consists of ornamental landscaping of these native trees and would not provide the same biological functions and values as natural woodland.
[d] While the *Juglans californica* Association is considered sensitive by the CDFW (2021a), the on-site vegetation consists of a small number of isolated trees and would not provide the same biological functions and values as natural woodland.

Figure 5.3-1 Vegetation Types and Other Areas



Source: PSOMAS, 2021

5. Environmental Analysis
BIOLOGICAL RESOURCES

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California Sagebrush Scrub

California sagebrush scrub occurs as an isolated patch near the southern end of the BSA. This vegetation type contains the densest cover of native species (approximately 90 percent) observed in the BSA. It is composed of a continuous canopy of California sagebrush (*Artemisia californica*) with scattered coyote brush (*Baccharis pilularis* ssp. *consanguinea*).

This area was mapped as "coastal sage scrub" in the 2009 Biological Assessment, prepared for the Malibu Middle and High School Campus Improvement Project (SCH No. 2008091059), and generally matches the previous description of "Venturan coastal sage scrub". It conforms to the *Artemisia californica* Association in *A Manual of California Vegetation*. This Association is not considered a sensitive natural community by the CDFW. It should be noted that in certain cases California sagebrush scrub would be considered locally sensitive habitat for its ability to support Threatened or Endangered species. However, the sagebrush scrub that occurs on the Project Site does not have the potential to support any Threatened or Endangered species, and therefore would not be considered a sensitive habitat type.

Coyote Brush – California Sagebrush Scrub

Coyote brush – California sagebrush scrub occurs on the eastern edge of the BSA. This vegetation type contains a relatively dense cover (approximately 80 percent) of coyote brush and California sagebrush with a small amount of laurel sumac (*Malosma laurina*) and the non-native shortpod mustard (*Hirschfeldia incana*).

This area was mapped as "disturbed/coastal sage scrub" in the 2009 Biological Assessment, but generally matches the previous description of "Venturan coastal sage scrub". It conforms to the *Baccharis pilularis – Artemisia californica* Association in *A Manual of California Vegetation*. This Association is not considered a sensitive natural community by the CDFW.

Coyote Brush – California Sagebrush Scrub/Upland Mustards

Coyote brush – California sagebrush scrub/upland mustards occurs on the periphery of the campus facilities in undeveloped portions of the BSA. This vegetation type has approximately 15 to 20 percent cover of native species, primarily coyote brush, California sagebrush, and saw-toothed goldenbush (*Hazardia squarrosa*). It has been heavily degraded by the presence of non-native, weedy species such as shortpod mustard and fennel (*Foeniculum vulgare*).

These areas were mapped as "coastal sage scrub", "disturbed/Venturan coastal sage scrub", and "disturbed/coyote brush" in the 2009 Biological Assessment, and generally match the previous description of "disturbed/coastal sage scrub". They conform to the *Baccharis pilularis – Artemisia californica* Association in *A Manual of California Vegetation* (CNPS 2019), though they are heavily degraded. This Association is not considered a sensitive natural community by the CDFW.

Coyote Brush – California Sagebrush Scrub/Annual Grassland

Coyote brush – California sagebrush scrub/annual grassland occurs along the eastern side of the BSA. This vegetation type has approximately 20 to 25 percent cover of native species, primarily California sagebrush and

coyote brush with laurel sumac, deerweed, California everlasting (*Pseudognaphalium californicum*), needle grass (*Stipa* sp.), chilicothe (*Marah macrocarpa*), and western blue-eyed-grass (*Sisyrinchium bellum*). It has been degraded by the presence of non-native, annual grasses such as red brome (*Bromus rubens*), wild oat (*Avena fatu*a), and soft chess (*Bromus hordeaceus*) with non-native forbs, such as fennel and petty spurge (*Euphorbia peplus*).

This area is mapped as "ruderal" in the 2009 Biological Assessment and generally matches a combination of the previous descriptions of "disturbed Venturan coastal sage scrub" and "ruderal". It conforms to a combination of the Baccharis pilularis – Artemisia californica Association and the *Baccharis pilularis*/annual grass–herb Association in *A Manual of California Vegetation*. This Association is not considered a sensitive natural community by the CDFW.

Disturbed Coyote Brush – California Sagebrush Scrub

Disturbed coyote brush – California sagebrush scrub occurs on a cut slope along the track on the eastern portion of the BSA. This vegetation type has approximately 10 to 15 percent cover of native species, including coyote brush, California sagebrush, California buckwheat (*Eriogonum fasciculatum*), and stephanomeria (*Stephanomeria* sp.). While it contains non-native, weedy species such as fennel, red brome, and Geraldton carnation weed (*Euphorbia terracina*), the weed cover is relatively low compared to coyote brush – California sagebrush scrub/upland mustards.

This area was mapped as "disturbed/coastal sage scrub" in the 2009 Biological Assessment and generally matches the previous vegetation description of "disturbed Venturan coastal sage scrub". It conforms to the *Baccharis pilularis – Artemisia californica* Association in *A Manual of California Vegetation*, though it is characterized by ground disturbance. This Association is not considered a sensitive natural community by the CDFW.

Upland Mustards/Disturbed Upland Mustards

Areas of upland mustards occur on the periphery of the campus in undeveloped portions of the BSA. This vegetation type is dominated by non-native, weedy species—primarily shortpod mustard with fennel, Russian thistle (*Salsola tragus*), and Bermuda grass (*Cynodon dactylon*). Some of these areas were mowed at the time of the survey (indicated as "disturbed upland mustards" on Figure 5.3-1).

These areas were mapped as "turf", "ruderal" and "coastal sage scrub" in the 2009 Biological Assessment and generally match the previous description of "ruderal". They conform to the *Hirschfeldia incana* Association in *A Manual of California Vegetation*. This Association is not considered a sensitive natural community by the CDFW (CDFW 2021a).

Disturbed Wild Oats and Annual Brome Grassland

Disturbed wild oats and annual brome grassland occurs along the eastern edge of the BSA. This vegetation type is dominated by a mix of nonnative, weedy grasses and forbs such as wild oat, red brome, ripgut grass (*Bromus diandrus*), soft chess, radish (*Raphanus sativus*), and petty spurge. These areas had previously been mowed.

These areas were mapped as "ruderal" in the 2009 Biological Assessment and generally match the previous description of "ruderal". They conform to the *Avena* spp. – *Bromus* spp. Alliance in *A Manual of California Vegetation*. This Alliance is not considered a sensitive natural community by the CDFW.

Riparian Herb

Riparian herb grows along the bed of the main drainage feature and in an adjacent basin on the western edge of the BSA. The drainage contains patches of species typical of riparian understory such as watercress (*Nasturtium officinale*), California rose (*Rosa californica*), and California blackberry (*Rubus ursinus*) with non-native species including castor bean (*Ricinus communis*), garden nasturtium (*Tropaeolum majus*), and Saint Augustine grass (*Stenotaphrum secundatum*). No single species is dominant throughout the length of the drainage.

Vegetation in the drainage was included as part of the "arroyo willow riparian forest" in the 2009 Biological Assessment, though the willow canopy has since burned. *A Manual of California Vegetation* does not provide an Alliance or Association classification for areas dominated by a variety of riparian understory vegetation. On-site vegetation does not have a high enough relative cover of California rose or California blackberry for it to be considered part of the *Rosa californica* or *Rubus ursinus* Association and there is no classification for an area dominated by watercress or castor bean. Given that the area formerly had a more extensive willow canopy, it could be considered part of the *Salix lasiolepis* Association. This Association is considered sensitive by the CDFW; however, the resource agencies may not consider areas currently lacking willows to be a sensitive natural community.

The basin is dominated by a patch of cattail (*Typha* sp.) surrounded by scattered natives such as an arroyo willow sapling (*Salix lasiolepis*), coyote brush, mule fat (*Baccharis salicifolia* ssp. *salicifolia*), and beardless wild-rye (*Elymus triticoides*).

Based on historic aerial images, the basin appears to have been constructed following the 2009 survey and so was not part of the 2009 Biological Assessment. It conforms to a *Typha* Association in *A Manual of California Vegetation*. This Association is not considered a sensitive natural community by the CDFW.

Arroyo Willow Thicket

Arroyo willow thicket occurs along the main drainage feature on the western edge of the BSA and along a drainage feature in the eastern portion of the BSA. This vegetation type is characterized by individuals and patches of arroyo willows. The non-native castor bean is present in the understory. The patch in the eastern portion of the BSA also contains blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prior to the Woolsey fire, the vegetation on the western edge of the BSA was more extensive. Many of the trees burned and some are regrowing while others remain as dead standing snags. Understory vegetation, where present, is similar to riparian herb, described above.

These areas were mapped as "arroyo willow riparian forest" in the 2009 Biological Assessment and generally match that previous vegetation description. They conform to the *Salix lasiolepis* Association in *A Manual of California Vegetation*. This Association is considered sensitive by the CDFW.

Eucalyptus Grove

Eucalyptus groves occur in two large patches at the northern end of the BSA and in a patch adjacent to the equestrian center. This vegetation type consists of mature eucalyptus trees (Eucalyptus sp.), though some of the trees burned in the Woolsey fire and remain as standing snags.

These areas were included in the "ornamental vegetation" classification in the 2009 Biological Assessment. It has been provided as its own vegetation category in the current report because A Manual of California Vegetation includes a Eucalyptus Association and because coastal eucalyptus groves are known to support wintering monarch butterflies (discussed below in Section 4.3, *Direct Impacts*), a species of local concern and CDFW Special Animal. This non-native vegetation type is not considered a sensitive natural community by the CDFW.

California Sycamore – Coast Live Oak Planting

A California sycamore – coast live oak planting occurs along a roadway at the southern end of the BSA. This vegetation type consists of newly planted western sycamore and coast live oak saplings; many of the trees appeared dead or dying at the time of the survey. The understory consists of a planted prostrate coyote brush cultivar with scattered non-natives such as shortpod mustard and freeway ice plant (*Carpobrotus edulis*).

This area was not planted at the time of the 2009 Biological Assessment but is consistent with the "ornamental vegetation" classification used in that report. It generally conforms to the *Platanus racemosa – Quercus agrifolia* Association in *A Manual of California Vegetation* due to the co-dominant tree species. This Association is considered a sensitive natural community by the CDFW; however, the resource agencies would likely not consider this landscaped area to provide the same biological functions and values as a natural sycamore – oak woodland.

Ornamental – Native Planting

Ornamental – native plantings occur primarily along the northwest periphery of the campus, near the equestrian center, and near the southern end of the BSA. This vegetation type is very heterogeneous and consists of a mix of native and non-native planted individuals and naturalized weedy species. While this area could be considered part of the developed/ornamental vegetation type discussed below, the vegetation is not as closely associated with structures and does not appear as "formally landscaped", even though many of the species appear to have been planted. The northern areas burned during the Woolsey fire. Species observed include natives such as coast live oak, Coulter's matilija poppy (*Romneya coulteri*) (a CRPR List 4.2 species), bladderpod (*Peritoma arborea*), laurel sumac, and California poppy (*Eschscholzia californica*) and nonnatives such as European olive (*Olea europaea*), tree tobacco (*Nicotiana glauca*), Mexican sage (*Salvia leucantha*), shortpod mustard, castor bean, and Russian thistle. A patch of southern California black walnut (*Juglans californica*) occurs at the southeastern edge of the BSA and consists of a few individual trees.

The areas along the northwest periphery of the campus were mapped as "ruderal" and "disturbed/coyote brush" in the 2009 Biological Assessment. The area near the equestrian center was mapped as "disturbed/developed". The southern California black walnut trees were mapped as "black walnut trees" but

were not considered a "California walnut woodland" because the patch of trees is small, not contiguous with other woodland habitat, and functions as ornamental vegetation. *A Manual of California Vegetation* does not provide an Alliance or Association classification for vegetation as heterogeneous as is present in these areas. Due to the high diversity of non-native species, this vegetation type would not be considered a sensitive natural community by the CDFW. Since the patch of black walnut trees is small and isolated, it would likely not be considered a sensitive natural community by the CDFW.

Turf

Turf occurs on the campus athletic fields throughout the BSA. This vegetation consists of maintained turf grass. Unvegetated landcover closely associated with these fields (e.g., baseball diamonds, sidewalks, and dugouts) are included in this mapping.

These areas were mapped as "turf" in the 2009 Biological Assessment. *A Manual of California Vegetation* does not provide an Alliance or Association classification for fields of cultivated grasses. As a non-native landscaped area, this vegetation type would not be considered a sensitive natural community by the CDFW.

Developed/Ornamental

Developed/ornamental areas occur throughout the main campus and adjacent residential areas. This landcover includes buildings, paved roads, parking lots, the campus track, and other structures. A construction site that was active at the time of the field survey is also included in this landcover. Ornamental landscaping that is closely associated with these structures is included in this landcover and includes a variety of species such as pine (Pinus sp.), Mexican fan palm (*Washingtonia robusta*), pepper tree (*Schinus molle*), blue jacaranda (*Jacaranda mimosifolia*), southern magnolia (*Magnolia grandiflora*), bougainvillea (*Bougainvillea* sp.), cape leadwort (Plumbago auriculata), pampas grass (*Cortaderia selloana*), and turf grass.

These areas were mapped as "disturbed/developed" in the 2009 Biological Assessment. *A Manual of California Vegetation* does not provide an Alliance or Association classification for developed areas or most ornamental landscaping. As a generally unvegetated area, this landcover would not be considered a sensitive natural community by the CDFW.

Disturbed

Disturbed landcover occur throughout the BSA. These areas consist of bare ground and are largely unvegetated (sparse weedy vegetation at less than 5 percent cover is present in some areas). Disturbed slopes had wattles placed along the slope contours to prevent erosion.

Some areas currently mapped as disturbed were vegetated at the time of the 2009 Biological Assessment while other areas were not included in the 2009 study area. *A Manual of California Vegetation* does not provide an Alliance or Association classification for unvegetated areas. As an unvegetated area, this landcover would not be considered a sensitive natural community by the CDFW.

Trees

Protected Trees

A Certified Arborist performed a tree evaluation on February 1 and 2, and April 19, 2021, to document the type, quantity, and conditions of trees present within the BSA. Trees protected pursuant to City ordinance on the site include eight western sycamores, one Southern California black walnut, and one coast live oak. Generally, these trees are located on slopes or in drainages over 30 feet from existing structures. The Coast Live Oak (*Quercus agrifolia)* is located in the northern portion of the Project Site, adjacent to the tennis courts. The Southern California black walnut is located next to a residence on the southeast corner of the Project Site. Two western sycamores were located on the northern portion of the Project Site, four were located on the western portion near the basketball courts, one was located on the southern portion of the Project Site, and one was located on the eastern school boundary. The Biological Report includes figures with locations of the trees and a table with specifications for each tree surveyed (Appendix C).

Other Tree Species

Other tree species onsite that are not protected pursuant to City ordinance are located mainly within landscaped areas between school structures, within drainage areas, and on slopes near parking lots and athletic fields. Of particular note is a dragon tree (*Dracaena draco*) and Monterey cypress (*Hesperocyparis macrocarpa*) located within the current Cabrillo Elementary School grounds. These are mature specimens with good health and very few defects. As these specimens have taken considerable time to reach their current size, consideration should be given for their protection and/or relocation during construction.

Additional trees not protected by the City were recorded at the request of the District. All trees with one trunk measuring 3 inches dbh or more, or a combination of any two trunks measuring 1.5 inches dbh or more in diameter were documented and are included in Appendix C.

Wildlife and Wildlife Habitats

Common Wildlife

Common wildlife species observed or expected to occur in the BSA are discussed below.

Fish

No portion of the BSA supports perennial water, but there are no ponded areas. The seep in the upstream end of Drainage 1 has some intermittent flow. However, flow is only present a very short distance above ground and would not provide adequate habitat for fish. Therefore, no suitable habitat for fish species is present on the BSA.

Reptiles and Amphibians

Amphibians require moisture for at least a portion of their life cycle, and many require standing or flowing water for reproduction. Terrestrial species may or may not require standing water for reproduction. These species are able to survive in dry areas by aestivating (i.e., remaining beneath the soil in burrows or under logs

and leaf litter and emerging only when temperatures are low and humidity is high). Many of these species' habitats are associated with water and they emerge to breed once the rainy season begins. Soil moisture conditions can remain high throughout the year in some habitat types depending on factors such as the amount of vegetation cover, elevation, and slope aspect. Amphibian species that may occur include western toad (*Anaxyrus boreas*) and Baja California treefrog (*Pseudacris hypochondriaca*).

Reptilian diversity and abundance typically vary with vegetation type and character. Many species prefer only one or two vegetation types; however, most species will forage in a variety of habitats. Most species occurring in open areas use rodent burrows for cover, protection from predators, and refuge during extreme weather conditions. The only reptile species observed in the BSA was the western fence lizard (Sceloporus occidentalis). Other reptile species that may occur in all vegetation types on the BSA include common side-blotched lizard (*Uta stansburiana*), southern alligator lizard (*Elgaria multicarinata*), California striped racer (*Masticophis lateralis lateralis*), San Diego night snake (*Hypsiglena ochrorhyncha*), San Diego gopher snake (*Pituophis catenifer annectens*), California lyresnake (*Trimorphodon lyrophanes*) and southern pacific rattlesnake (*Crotalus oreganus helleri*).

Birds

A variety of bird species are expected to be residents in the BSA, using the habitat throughout the year. Other species are present only during certain seasons. For example, the white-crowned sparrow (*Zonotrichia leucophrys*) is expected to occur on the Project Site during the winter season and then migrate north in the spring to breed during the summer. On the Project Site, chaparral and scrub vegetation supports bird populations composed of species adapted to the dense vegetation that typifies these areas. Although large numbers of individuals can often be found inhabiting these vegetation types, species diversity is usually low to moderate, depending on the season. A relatively high proportion of the birds breeding in these habitats are year-round residents. Such species observed during the surveys include mourning dove (*Zenaida macroura*), Bewick's wren (*Thryomanes bewickii*), wrentit (*Chamaea fasciata*), northern mockingbird (*Mimus polyglottos*), spotted towhee (*Pipilo maculatus*), and California towhee (*Pipilo crissalis*).

Other bird species observed in the BSA include Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), black-bellied plover (*Pluvialis squatarola*), killdeer (*Charadrius vociferus*), ring-billed gull (*Larus delawarensis*), western gull (*Larus occidentalis*), California gull (*Larus californicus*), Nuttall's woodpecker (*Picoides nuttallii*), nanday parakeet (*Aratinga nenday*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), Cassin's kingbird (*Tyrannus vociferans*), western kingbird (*Tyrannus verticalis*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), northern rough-winged swallow (*Stelgidopteryx serripennis*), cliff swallow (*Petrochelidon pyrrhonota*), barn swallow (*Hirundo rustica*), oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltriparus minimus*), blue-gray gnatcatcher (*Polioptila caerulea*), ruby-crowned kinglet (*Regulus calendula*), wrentit (*Chamaea fasciata*), western bluebird (*Sialia mexicana*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), American pipit (*Anthus rubescens*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), song sparrow (*Melospiza melodia*), Lincoln's sparrow (*Melospiza lincolnii*), white-crowned sparrow, dark-eyed junco (*Junco hyemalis*), Bullock's oriole (*Icterus bullockii*), red-winged blackbird (*Agelaius phoeniceus*), brown-headed cowbird (*Molothrus ater*), Brewer's blackbird (*Euphagus cyanocephalus*), common yellowthroat (*Geothlypis trichas*), yellow-rumped warbler (*Setophaga coronata*), and Wilson's warbler (*Cardellina pusilla*).

Birds of prey (raptors) observed within the BSA include northern harrier (*Circus cyaneus*), a California Species of Special Concern when nesting; red-shouldered hawk (*Buteo lineatus*); redtailed hawk (*Buteo jamaicensis*); great horned owl (*Bubo virginianus*); burrowing owl (*Athene cunicularia*), a California Species of Special Concern when nesting and wintering; American kestrel (*Falco sparverius*); and American peregrine falcon (*Falco peregrinus anatum*) (flyover occurrence), a CDFW Fully Protected species. Other raptors expected to occur on the Project Site include the turkey vulture (*Cathartes aura*), Cooper's hawk (*Accipiter cooperii*), barn owl (*Tyto alba*), red-tailed hawk, barn owl, great horned owl, red-shouldered hawk, Cooper's hawk, and American kestrel. The burrowing owl may occur for wintering or breeding.

Mammals

As with other taxonomic groups, the presence of different vegetation types on the Project Site offers mammals a variety of habitats. The BSA being mostly developed, or disturbed habitat is expected to support a relatively low diversity, but potentially moderately high abundance, of mammals. Small, ground-dwelling mammals observed in the BSA include western gray squirrel (Sciurus griseus), California ground squirrel (*Otospermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*). Other common small mammals that may occur on the BSA include North American deermouse (*Peromyscus maniculatus*), California pocket mouse (*Chaetodipus californicus*) house mouse (*Mus musculus*), and black rat (*Rattus rattus*). Medium to large-sized mammals or their sign observed during the survey include desert cottontail (*Sylvilagus audubonii*), brush rabbit (*Sylvilagus bachmani*), and coyote (*Canis latrans*). Other common medium to large-sized mammals that may occur on the BSA include striped skunk (*Mephitis mephitis*), bobcat (*Felis rufus*), mule deer (*Odocoileus hemionus*), Virginia opossum (*Didelphis virginiana*), gray fox (*Urocyon cinereoargenteus*), and northern raccoon (*Procyon lotor*).

Bats occur throughout most of Southern California and may use any portion of the Project Site as foraging habitat. The trees in the BSA also provide potential roosting opportunities for the hoary bat (*Aeorestes cinereus*) or the western red bat (*Lasiurus frantzii*). Species that may occur include but are not limited to the Brazilian free-tailed bat (*Tadarida brasiliensis*), big brown bat (*Eptesicus fuscus*), canyon bat (*Parastrellus hesperus*), and California myotis (*Myotis californicus*) may all occur in the BSA.

Special Status Plant and Wildlife Species

The following section addresses special status biological resources reported from the region. These resources include plant and wildlife species that have been afforded special status and/or are recognized by federal and State resource agencies, as well as private conservation organizations. In general, the principal reason an individual taxon (i.e., species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitations of its population size, geographic range, and/or distribution resulting in most cases from habitat loss. This list includes species reported by the CNDDB, and CNPS and is supplemented with species from the author's experience that could occur based on the presence of suitable habitat. In addition, special status biological resources include vegetation types and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, State, and local government conservation programs. Sources used to determine the special status of biological resources are listed below.

- Habitats: the CNDDB and the CDFW's California Natural Communities List.
- Plants: the Electronic Inventory of Rare and Endangered Vascular Plants of California; the CNDDB various USFWS Federal Register notices regarding listing status of plant species; and the CDFW's List of Special Vascular Plants, Bryophytes, and Lichens.
- Wildlife: the CNDDB; various USFWS Federal Register notices regarding listing status of wildlife species; and the CDFW's List of Special Animals.

Definition of Special-Status Biological Resources

A federally Endangered species is one facing extinction throughout all or a significant portion of its geographic range. A federally Threatened species is one likely to become Endangered within the foreseeable future throughout all or a significant portion of its range. The presence of any federally Threatened or Endangered species within a project impact area generally imposes severe constraints on development, particularly if an action would result in "take" of the species or its habitat. The FESA defines the term "take" as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Harm, in this sense, can include any disturbance of habitats used by the species during any portion of its life history. Proposed species or Candidate species are those officially proposed by the USFWS for addition to the federal Threatened and Endangered species list. Because proposed species may soon be listed as Threatened or Endangered, the presence of a Proposed or Candidate species may impose constraints on development if they are listed prior to an action, particularly if the action would result in "take" of the species or its habitat.

The State of California considers an Endangered species as one whose prospects of survival and reproduction are in immediate jeopardy; a Threatened species as one present in such small numbers throughout its range that it is likely to become an Endangered species in the near future in the absence of special protection or management; and a Rare species as one present in such small numbers throughout its range that it may become Endangered if its present environment worsens. Rare species applies only to California native plants; these species are treated as State-listed species. State-listed Threatened and Endangered species are fully protected against take unless an Incidental Take Permit is obtained from the resource agencies. The presence of any State-listed Rare, Threatened, or Endangered species generally imposes constraints on proposed actions, particularly if the action would result in "take" of the species or its habitat.

California Species of Special Concern is an informal designation used by the CDFW for some declining wildlife species that are not State Candidates. This designation does not provide legal protection but signifies that these species are recognized as special status by the CDFW.

Species that are California Fully Protected and Protected include those protected by special legislation for various reasons, such as the mountain lion and white-tailed kite (*Elanus leucurus*). Fully Protected species may not be taken or possessed at any time. California Protected species include those species that may not be taken or possessed at any time except under special permit from the CDFW issued pursuant to the California Code of Regulations (Title 14, §§ 650, 670.7) or § 2081 of the California Fish and Game Code.

The California Rare Plant Rank (CRPR), formerly known as California Native Plant Society (CNPS) List, is a ranking system by the Rare Plant Status Review group[2] and managed by the CNPS and the CDFW. A CRPR summarizes information on the distribution, rarity, and endangerment of California's vascular plants. Plants with a CRPR of 1A are presumed extinct in California because they have not been seen in the wild for many years. Plants with a CRPR of 1B are Rare, Threatened, or Endangered throughout their range. Plants with a CRPR of 2A are presumed extirpated from California but are more common elsewhere. Plants with a CRPR of 2B are considered Rare, Threatened, or Endangered in California, but are more common elsewhere. Plants with a CRPR of 3 require more information before they can be assigned to another rank or rejected; this is a "review" list. Plants with a CRPR of 4 are of limited distribution or infrequent throughout a broader area in California; this is a "watch" list. The Threat Rank is an extension added onto the CRPR to designate the level of endangerment by a 1 to 3 ranking. An extension of .1 is assigned to plants that are considered to be "seriously threatened" in California (i.e., over 80 percent of the occurrences are threatened or having a high degree and immediacy of threat). Extension .2 indicates the plant is "fairly threatened" in California (i.e., between 20 and 80 percent of the occurrences are threatened or have a moderate degree and immediacy of threat). Extension .3 is assigned to plants that are considered "not very threatened" in California (i.e., less than 20 percent of occurrences are threatened or have a low degree and immediacy of threat or no current threats known). The absence of a threat code extension indicates plants lacking any threat information.

Special Status Vegetation Types

One of the vegetation types within the BSA is considered special status: arroyo willow thicket.

Survey for Special-Status Biological Resources

An initial biological resource literature review was conducted based on existing records for the region. The CNPS's Inventory of Rare and Endangered Vascular Plants of California and the CDFW's CNDDB were reviewed to identify special status plants, wildlife, and habitats reported to occur within the Proposed Project vicinity. These standard databases searched the USGS' Point Dume, Malibu Beach, Triunfo Pass, Newbury Park, Thousand Oaks, and Calabasas 7.5-minute topographic quadrangles. A review of FESA critical habitat documents was used to identify any portion of the BSA occurring within proposed or designated Critical Habitat. Additionally, readily available environmental documents created for the Malibu Middle and High School Campus Improvements Project were reviewed (SCH No. 2008091059).

Summary of Biological Survey Protocols

A general biological survey was conducted by qualified biologists on November 12, 2019, and again on April 15, 2021[3] to evaluate the potential presence of habitats that could support special status plant and wildlife species.

[2] A group of over 300 botanical experts from the government, academia, non-governmental organizations, and the private sector.

[3] Qualified Biologists visited the site to conduct a general survey and map the vegetation in the eastern portion of the BSA, as the BSA had expanded to include the area up to Merritt Drive.

Focused special status plant surveys were floristic in nature and conducted following the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. Surveys were conducted on May 4 and June 11, 2020, by a qualified biologist. A systematic survey was conducted in all areas of suitable special status plant habitat in the BSA[4]. A list of plant species observed is included in the Project Biological Report (Appendix C).

Wildlife species surveys were conducted through various means. Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris. Birds were identified by visual and by auditory recognition through two bird surveys, one during the breeding season (March 15 – August 21) on May 21, 2020, and one during the non-breeding (September 1 – March 14) season on December 9, 2019. Focused raptor surveys were conducted by a qualified biologist on January 8, March 26, April 23, June 3, and May 21, 2020. Raptor surveys were conducted at least one week apart and during the early morning hours between dawn and 10:00 AM. In order to account for seasonal variations, surveys were conducted during the spring/breeding season (March 1 – June 15) as well as winter/non-breeding (December 1 – March 15). One raptor survey was conducted in the eastern portion of the BSA by a qualified biologist. Three additional surveys were conducted for owls immediately before nightfall on February 27, March 27, and April 27, 2020. All surveys were conducted during weather conditions appropriate for diurnal raptor detection and bird and owl detection and the entire BSA was walked using binoculars to survey all shrubs, trees, and potential raptor foraging, roosting and/or nesting locations. Survey dates, times, and weather data are shown in Appendix C.

Searches for mammals were conducted during the day and included searching for and identifying diagnostic sign, including scat, footprints, burrows, and trails. All species observed were recorded in field notes. A list of wildlife species observed is included in Appendix C.

Special-Status Plant Species

Many special status plant species have been reported from the Project region. Table 5.3-2, *Special Status Plant Species of the Project Region*, provides a list of these species; their listing status; and their potential to occur in each portion of the BSA. Locations of special status plant species that were identified on the Project Site during focused surveys can be found on Figure 5.3-2, *Special Status Plant Survey Results*.

[4] The Survey Area expanded in 2021, after special status plant surveys were conducted; however, any special status plant species observed incidentally during vegetation mapping conducted in 2021 were recorded and mapped.

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Table 5.3-2 Special Status Plant Species of the Project Region

Scientific Name	Common Name	USFWS	CDFW	CRPR	Species Background	Potential
Abronia maritima	red sand-verbena	-	-	4.2	Perennial herb. Coastal dunes; 0–328 ft. Southern California County Distribution: Los Angeles, Orange, San Diego, and Ventura. Blooming period: February–November.	Not expected to occur; no suitable habitat.
Astragalus brauntonii	Braunton's milk-vetch	FE	-	1B.1	Perennial herb. Recently burned and disturbed areas, in sandstone and carbonite soils, in chaparral, coastal scrub, and grasslands; 13–2,099 ft. Southern California County Distribution: Los Angeles, Orange, Riverside, Ventura. Blooming period: January–August.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Atriplex coulteri	Coulter's saltbush	-	-	1B.2	Perennial herb. Alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, and grassland; 9–1,509 ft. Southern California County Distribution: Los Angeles, Orange, San Bernardino, San Diego, Ventura. Blooming period: March–October.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Atriplex serenana var. *davidsonii*	Davidson's saltscale	-	-	1B.2	Annual herb. Alkaline conditions in coastal bluff scrub and coastal scrub; 32–656 ft. Southern California County Distribution: Los Angeles (Presumed extirpated; Occurrence confirmed, but possibly extirpated), Orange, Riverside, San Diego, Ventura. Blooming period: April–October.	Not expected to occur; limited, marginally suitable habitat; few records in the region.
Baccharis malibuensis	Malibu baccharis	-	-	1B.1	Deciduous shrub. Chaparral, coastal scrub, cismontane and riparian woodland; 492–1,000 ft. Southern California County Distribution: Los Angeles, Orange. Blooming period: August.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Calochortus catalinae	Catalina mariposa lily	-	-	4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, and grassland; 49–2,296 ft. Southern California County Distribution: Los Angeles, Orange, San Bernardino, San Diego, Ventura. Blooming period: February–June.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Calochortus clavatus var. *clavatus*	club-haired mariposa lily	-	-	4.3	Perennial bulbiferous herb. Clay, rocky, or serpentine soils in chaparral, coastal scrub, cismontane woodland, grassland; 246–4,264 ft. Southern California County Distribution: Los Angeles, Ventura. Blooming period: May–June.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Calochortus clavatus var. *gracilis*	slender mariposa lily	-	-	1B.2	Perennial bulbiferous herb. Chaparral, coastal scrub, grassland; 0–3,280 ft. Southern California County Distribution: Los Angeles, Ventura. Blooming period: March–June.	Limited potential to occur; marginally suitable habitat.
Calochortus plummerae	Plummer's mariposa lily	-	-	4.2	Perennial bulbiferous herb. Granitic and rocky areas in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and grassland; 0–5,576 ft. Southern California County Distribution: Los Angeles, Orange, Riverside, San Bernardino, Ventura. Blooming period: May–July.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.

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Table 5.3-2 Special Status Plant Species of the Project Region

Scientific Name	Common Name	USFWS	CDFW	CRPR	Species Background	Potential
Camissoniopsis lewisii	Lewis' evening-primrose	-	-	3	Annual herb. Sandy or clay soils in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and grassland; 0–984 ft. Southern California County Distribution: Los Angeles, Orange (Presumed extirpated), San Diego. Blooming period: March–June.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Centromadia parryi ssp. *australis*	southern tarplant	-	-	1B.1	Annual herb. Found within the margin of marshes and swamps, vernally mesic soils in grassland, and vernal pools; 0–1,574 ft. Southern California County Distribution: Los Angeles, Orange, San Diego, Ventura. Blooming period: May–November.	Not expected to occur; no suitable habitat.
Cercocarpus betuloides var. *blancheae*	island mountain-mahogany	-	-	4.3	Evergreen shrub. Closed-cone coniferous forests and chaparral; 98–1,968 ft. Southern California County Distribution: Los Angeles, Ventura. Blooming period: February–May.	Not expected to occur; no suitable habitat.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	-	-	1B.1	Annual herb. Sandy soils in coastal bluff scrub and coastal dunes; 0–328 ft. Southern California County Distribution: Los Angeles, Orange (Presumed extirpated), San Diego, Ventura. Blooming period: January–August.	Not expected to occur; no suitable habitat.
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	-	SE	1B.1	Annual herb. Sandy soil in coastal scrub and grassland; 492–4,002 ft. Southern California County Distribution: Los Angeles, Orange (Presumed extirpated), Ventura. Blooming period: April–July.	Not expected to occur; no suitable soils.
Chorizanthe parryi var. *parryi*	Parry's spineflower	-	-	1B.1	Annual herb. Sandy or rocky openings in chaparral, coastal scrub, cismontane woodland, and grassland; 902–4,001 ft. Southern California County Distribution: Los Angeles, Riverside, San Bernardino. Blooming period: April–June.	Not expected to occur; outside current known elevational range.
Convolvulus simulans	small-flowered morning-glory	-	-	4.2	Annual herb. Friable clay soils or serpentine seeps in chaparral openings, coastal scrub, and grassland; 98–2,297 ft. Southern California County Distribution: Kern, Los Angeles, Orange, Riverside, San Diego. Blooming period: March–July.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Dichondra occidentalis	western dichondra	-	-	4.2	Perennial rhizomatous herb. Chaparral, cismontane woodland, coastal scrub, grassland; 164–1,640 ft. Southern California County Distribution: Los Angeles (Uncertain about distribution or identity), Orange, San Diego, Ventura. Blooming period: January–July.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	-	-	1B.1	Perennial herb. Rocky, often clay or serpentine soils in coastal bluff scrub, chaparral, coastal scrub, and grassland; 16–1,476 ft. Southern California County Distribution: Los Angeles, Orange, San Diego, Ventura. Blooming period: April–June.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.

Table 5.3-2 Special Status Plant Species of the Project Region

Scientific Name	Common Name	USFWS	CDFW	CRPR	Species Background	Potential
Dudleya cymosa ssp. *agourensis*	Agoura Hills dudleya	FT	-	1B.2	Perennial herb. Rocky and volcanic soils in chaparral and cismontane woodland; 656–1,640 ft. Southern California County Distribution: Los Angeles, Ventura. Blooming period: May–June.	Not expected to occur; no suitable habitat.
Dudleya cymosa ssp. *marcescens*	marcescent dudleya	FT	SR	1B.2	Perennial herb. Rocky and volcanic soils in chaparral; 492–1,706 ft. Southern California County Distribution: Los Angeles, Ventura. Blooming period: April–July.	Not expected to occur; no suitable habitat.
Dudleya cymosa ssp. *ovatifolia*	Santa Monica dudleya	FT	-	1B.1	Perennial herb. Shaded, volcanic or sedimentary rocky soils in chaparral and coastal scrub; 492–5,494 ft. Southern California County Distribution: Los Angeles, Orange. Blooming period: March–June.	Not expected to occur; no suitable habitat.
Hordeum intercedens	vernal barley	-	-	3.2	Annual herb. Coastal dunes, coastal scrub, saline flats and depressions in grassland, and vernal pools; 16–3,280 ft. Southern California County Distribution: Kern, Los Angeles, Orange, Riverside, San Diego, Ventura. Blooming period: March–June.	Not expected to occur; no suitable habitat.
Horkelia cuneata var. *puberula*	mesa horkelia	-	-	1B.1	Perennial herb. Sandy and gravelly soils in maritime chaparral, cismontane woodland, and coastal scrub; 229–2,657 ft. Southern California County Distribution: Los Angeles, Orange, Riverside (Presumed extirpated), San Bernardino, San Diego (Presumed extirpated), Ventura. Blooming period: February–July (September).	Not expected to occur; no suitable soils.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	-	-	1B.2	Perennial shrub. Chaparral and in sandy coastal scrub, often in sandy disturbed areas; 33–443 ft. Southern California County Distribution: Los Angeles, Orange, San Diego. Blooming period: April–November.	Not expected to occur; no suitable habitat.
Juglans californica	**Southern California black walnut**	-	-	4.2	Deciduous tree. Alluvial areas in chaparral, cismontane woodland, and coastal scrub; 164–2,952 ft. Southern California County Distribution: Los Angeles, Orange, Riverside, San Bernardino, San Diego, Ventura. Blooming period: March–August.	Observed; suitable habitat.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	-	-	1B.1	Annual herb. Coastal salt marsh, coastal salt swamps, playas, vernal pools; 3–4,001 ft. Southern California County Distribution: Kern (Presumed extirpated), Los Angeles (Presumed extirpated), Orange, Riverside, San Bernardino (Presumed extirpated), San Diego, Ventura. Blooming period: February–June.	Not expected to occur; no suitable habitat.
Lepechinia fragrans	fragrant pitcher sage	-	-	4.2	Perennial herb. Chaparral; 66–4,297 ft. Southern California County Distribution: Los Angeles, San Bernardino, Ventura (Uncertain about distribution or identity). Blooming period: March–October.	Not expected to occur; no suitable habitat.
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	-	-	4.2	Perennial bulbiferous herb. Openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland; 98–	Not expected to occur; no suitable habitat.

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Table 5.3-2 Special Status Plant Species of the Project Region

Scientific Name	Common Name	USFWS	CDFW	CRPR	Species Background	Potential
					5,904 ft. Southern California County Distribution: Los Angeles, Orange, Riverside, San Bernardino, San Diego, Ventura. Blooming period: March–July (August).	
Monardella hypoleuca ssp. *hypoleuca*	white-veined monardella	-	-	1B.3	Perennial herb. Chaparral and cismontane woodland; 164–5,002 ft. Southern California County Distribution: Los Angeles, Ventura. Blooming period: April–December.	Not expected to occur; no suitable habitat.
Navarretia ojaiensis	Ojai navarretia	-	-	1B.1	Annual herb. Openings in chaparral and coastal sage scrub and grassland; 275–620 m (902–2,034 ft). Southern California County Distribution: Los Angeles (Uncertain about distribution or identity), Ventura. Blooming period: May–July.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Pentachaeta lyonii	Lyon's pentachaeta	FE	SE	1B.1	Annual herb. Rocky or clay soils in coastal scrub, grassland, and openings in chaparral; 98–2,066 ft. Southern California County Distribution: Los Angeles, Ventura. Blooming period: March–August.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Phacelia hubbyi	Hubby's phacelia	-	-	4.2	Annual herb. Gravelly to rocky soil or talus in chaparral, coastal scrub, grassland; 0–3,280 ft. Southern California County Distribution: Kern, Los Angeles, Ventura. Blooming period: April–July.	Not expected to occur; no suitable soils.
Phacelia ramosissima var. *austrolitoralis*	south coast branching phacelia	-	-	3.2	Perennial herb. Sandy, sometimes rocky soils in chaparral, coastal dunes, coastal scrub, coastal salt marshes and swamps; 16–984 ft. Southern California County Distribution: Orange, Los Angeles, San Diego, Ventura. Blooming period: March–August.	Not expected to occur; no suitable habitat.
Quercus dumosa	Nuttall's scrub oak	-	-	1B.1	Perennial evergreen shrub. Sandy or clay loam in closed-cone coniferous forest, chaparral, and coastal scrub; 49–1,312 ft. Southern California County Distribution: Los Angeles, Orange, San Diego, Ventura. Blooming period: February–August.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.
Romneya coulteri	**Coulter's matilija poppy**	-	-	4.2	Perennial rhizomatous herb. Chaparral and coastal scrub; often in burned areas; 65–3,936 ft. Southern California County Distribution: Los Angeles, Orange, Riverside, San Diego. Blooming period: March–July.	Observed; suitable habitat.
Senecio aphanactis	chaparral ragwort	-	-	2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub, and alkaline flats; 49–2,624 ft. Southern California County Distribution: Los Angeles, Orange, Riverside, San Diego, Ventura. Blooming period: January–April.	Not expected to occur; no suitable habitat.
Thelypteris puberula var. *sonorensis*	Sonoran maiden fern	-	-	2B.2	Perennial rhizomatous herb. Meadows, seeps, and streams; 164–2,001 ft. Southern California County Distribution: Los Angeles, Riverside, San Bernardino. Blooming period: January–September.	Not expected to occur; not observed during focused surveys; marginally suitable habitat.

Table 5.3-2 Special Status Plant Species of the Project Region

Scientific Name	Common Name	USFWS	CDFW	CRPR	Species Background	Potential

USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife; CRPR: California Rare Plant Rank.

Species Status

Federal (USFWS)	**State (CDFW)**
FE Endangered	SE Endangered
FT Threatened	SR Rare

CRPR

1B	Plants Rare, Threatened, or Endangered in California and elsewhere
2B	Plants Rare, Threatened, or Endangered in California, but more common elsewhere

3 Plants about which we need more information - review list

4 Plants of limited distribution - watch list

CRPR Threat Code Extension

None Plants lacking any threat information

1. Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
2. Moderately threatened in California (20–80% of occurrences threatened; moderate degree and immediacy of threat)
3. Not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known)

Species that were observed [on site] are shown in **boldface** type.

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Figure 5.3-2 Special Status Plant Survey Results

Source: PSOMAS, 2021

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Special Status Wildlife Species

Many special status wildlife species have been reported from the Project region. Table 5.3-3, *Special Status Wildlife Species Reported from the Project Area*, provides a list of these species; their listing status; and their potential to occur in each portion of the BSA. Locations of special status wildlife species that were identified on the Project Site during focused surveys can be found on Figure 5.3-3, *Special Status Wildlife Observations*.

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Table 5.3-3 Special Status Wildlife Species Reported from the Project Area

Species	General Habitat/Range Descriptions	USFWS	CDFW	Potential for Occurrence
Invertebrates				
Danaus plexippus pop. 1 monarch (California overwintering population)[a]	Primarily occurs in coastal, lowland, and foothill areas with milkweed (Ascelpias spp.), though also in deserts and mountains; overwinters in large numbers on trees.	–	SA	May occur; limited suitable wintering habitat in eucalyptus grove. Eucalyptus groves will not be impacted by the Proposed Project.
Euphydryas editha quino Quino checkerspot butterfly	Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. Hills and mesas near the coast. Need high densities of food plants Plantago erecta, P. insularis, and Orthocarpus purpurescens.	FE	–	Not expected to occur; outside of species range.
Bombus crotchii Crotch bumble bee	Occurs in open grassland and scrub habitats; nests underground. Feeds on milkweed (Asclepias sp.), pincushion (Chaenactis sp,), lupine (Lupinus sp.), alfalfa (Medicago sp.), phacelia (Phacelia sp.), and sage (Salvia sp.), among others.	–	CE	Not expected to occur; no suitable habitat.
Fish				
Gila orcuttii arroyo chub	Occurs in coastal freshwater streams and rivers with sustained flows and emergent vegetation with substrates consisting primarily of sand or mud.	–	SSC	Not expected to occur; no suitable habitat.
Oncorhynchus mykiss irideus pop. 10 steelhead – southern California DPS	Occurs in perennial streams and rivers that connect to the ocean.	FE	–	Not expected to occur; no suitable habitat.
Eucyclogobius newberryi tidewater goby	Occurs in in waters of coastal lagoons, estuaries, and marshes.	FE	SSC	Not expected to occur; no suitable habitat.
Amphibians				
Anaxyrus californicus arroyo toad	Occurs in semi-arid regions near washes or intermittent streams; requires suitable breeding pools.	FE	SSC	Not expected to occur; no suitable habitat.
Spea hammondii western spadefoot	Occurs in a wide range of habitats including lowlands to foothills, grasslands, open chaparral, and pine-oak woodlands. It prefers shortgrass plains, and sandy or gravelly soil (e.g., alkali flats, washes, alluvial fans). It is fossorial and breeds in temporary rain pools and slow-moving streams (e.g., areas flooded by intermittent streams).	–	SSC	Not expected to occur; limited terrestrial habitat with no suitable breeding habitat (no breeding pools).

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Table 5.3-3 Special Status Wildlife Species Reported from the Project Area

Species	General Habitat/Range Descriptions	USFWS	CDFW	Potential for Occurrence
Reptiles				
Emys marmorata western pond turtle	Occurs in ponds, lakes, marshes, rivers, streams, and irrigation ditches with a rocky or muddy bottom and aquatic vegetation.	–	SSC	Not expected to occur; no suitable habitat.
Phrynosoma blainvillii coast horned lizard	Occurs in scrubland, grassland, coniferous forests, and broadleaf woodland vegetation types.	–	SSC	Not expected to occur; sage scrub habitat is too degraded and isolated.
Aspidoscelis tigris stejnegeri coastal whiptail	Occurs in hot and dry areas with sparse foliage and open areas. Found in forests, woodland, chaparral, and riparian areas.	–	SSC	May occur; limited suitable habitat. Only very rarely expected to occur within the Project impact area.
Anniella stebbinsi southern California legless lizard	Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Sometimes found in suburban gardens in Southern California. Spends most of its life beneath the soil, under rocks, boards, driftwood, logs, debris, or in leaf litter. Prefers areas with loose, sandy soil, moisture, warmth, and plant cover.	–	SSC	Not expected to occur; no suitable habitat.
Thamnophis hammondii two-striped garter snake	Occurs in wetlands, freshwater marsh, and riparian habitats with perennial water.	–	SSC	Not expected to occur; no suitable habitat.
Birds				
Aquila chrysaetos golden eagle (nesting and wintering)	Nests in open and semi-open habitats, such as tundra, shrublands, grasslands, woodland-brushlands, coniferous forests, farmland, and riparian habitats. Forages in broad expanses of open country.	–	FP	Not expected to occur; no suitable habitat.
Circus cyaneus northern harrier (nesting)	Occurs from annual grassland up to lodgepole pine and alpine meadow habitats, as high as 3000 m (10,000 ft). Frequents meadows, grasslands, open rangelands, desert sinks, and fresh and saltwater emergent wetlands; seldom found in wooded areas. Permanent resident of the northeastern plateau and coastal areas; less common resident of the Central Valley. Widespread winter resident and migrant in suitable habitat. Uses tall grasses and forbs in wetland, or at wetland/field border, for cover.	–	SSC	Observed as a flyover (Exhibit 6); not expected to occur for breeding due to lack of suitable habitat. May forage in the undeveloped grassland and scrub habitat in the BSA. Not expected to forage in the impact area.
Falco peregrinus anatum American peregrine falcon (nesting)	Nests on cliffs and tall buildings near wetlands, lakes, rivers, or other large water features.	–	FP	Observed as a flyover (Exhibit 6); not expected to occur for breeding. May forage in the undeveloped grassland and scrub habitat in the BSA. Not expected to forage in the impact area.

Table 5.3-3 Special Status Wildlife Species Reported from the Project Area

Species	General Habitat/Range Descriptions	USFWS	CDFW	Potential for Occurrence
Athene cuniculari burrowing owl (burrow sites and some wintering sites)	Occurs in sparse vegetation in arid and semi-arid habitats such as grasslands, steppes, deserts, prairies, and agricultural areas. Nests in mammal burrows or man-made cavities.	–	SSC	Observed; may occur for breeding and wintering.
Polioptila californica coastal California gnatcatcher	In California, this species is an obligate resident of several distinct sub-associations of the coastal sage scrub vegetation type. The gnatcatcher has been recorded from sea level to approximately 3,000 feet above msl (USFWS 2003); however, greater than 90 percent of gnatcatcher records are from between sea level and 820 feet above msl along the coast and between sea level and 1,800 feet above msl inland (Atwood and Bolsinger 1992).	FT	SSC	Not expected to occur; limited suitable habitat; lack of historical records in the Project region; outside of species range.
Agelaius tricolor tricolored blackbird (nesting)	This colonial nesting species prefers to breed in freshwater marshes dominated by cattails and bulrushes, with willows and nettles (*Urtica* spp.) also common. The introduced mustards (*Brassica* spp.), blackberries (*Rubus* spp.), thistles (*Circium* spp.), and mallows (*Malva* spp.) have also been used for several decades.	–	ST, SSC	Not expected to occur; no suitable habitat.
Mammals				
Macrotus californicus California leaf-nosed bat	Occurs in desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub, and palm oasis habitats.	–	SSC	Not expected to occur; no suitable habitat.
Euderma maculatum spotted bat	Occurs in a variety of habitats such as arid desert, grassland, and mixed conifer forest (Zeiner et al. 1990). Roosts in rock crevices (Williams 1986).	–	SSC	Not expected to occur; no suitable habitat.
Lasiurus blossevillii western red bat	Prefers riparian areas dominated by walnuts, oaks, willows, cottonwoods, and sycamores where they roost in these broad-leafed trees.	–	SSC	Low potential to occur; suitable foraging habitat and limited suitable roosting habitat.
Eumops perotis californicus western mastiff bat	Occurs in many open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, palm oases, chaparral, desert scrub, and urban areas. Typically forages in open areas with high cliffs and roosts in crevices on cliff faces and occasionally in man-made structures with at least 15 feet of unobstructed space below roost.	–	SSC	May occur for foraging; suitable foraging habitat; not expected to occur for roosting; no suitable roosting habitat.

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Table 5.3-3 Special Status Wildlife Species Reported from the Project Area

Species	General Habitat/Range Descriptions	USFWS	CDFW	Potential for Occurrence
Taxidea taxus American badger	Most abundant in the drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. When inactive, occupies underground burrow.	–	SSC	Not expected to occur; no suitable habitat.
Neotoma lepida intermedia San Diego desert woodrat	Common to abundant in Joshua tree, pinyon-juniper, mixed and chamise-redshank chaparral, sagebrush, and most desert habitats. Also found in a variety of other habitats. Most abundant in rocky areas with Joshua trees. Elevational range from sea level to 8,500 ft. Northern and elevational distribution may be limited by temperature.	–	SSC	Not expected to occur; no suitable habitat.

USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife; USFS: U.S. Forest Service; msl: mean sea level

[a]: This is a species of local concern because they historically roost in large numbers along the coast in large trees such as gum trees (*Eucalyptus* spp.) and it was therefore added to the table, however, other CDFW Special Animal species that may occur in the Project region are not included in this table.

Status Definitions

Federal (USFWS) Status		State (CDFW) Status	
FE	Endangered	SE	Endangered
FT	Threatened	ST	Threatened
		CE	Candidate for Listing as Endangered
		SSC	Species of Special Concern
		FP	California Fully Protected
		WL	Watch List
		SA	Special Animal (tracked by CNDDB)

Notes: Scientific and common names for wildlife species follow the most current list of Special Animals (July 2021) available from the CDFW (https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals).

Figure 5.3-3 Special Status Wildlife Observations

Source: PSOMAS, 2021

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Environmentally Sensitive Habitat Area (ESHA)

According to the City of Malibu LCP ESHA Overlay Map 2: Zuma Beach to Escondido, a mapped ESHA in the northwestern portion of the Survey Area within the western boundary of the Specific Plan Area and is a designated protected area within the Coastal Zone of California, pursuant to the California Coastal Act and the Certified Local Coastal Program for the City of Malibu. The ESHA consists of an approximately 1,100-foot-long drainage (Drainage 1) along the western edge of the Campus, as shown on Figures 5.3-4, *Mapped Downstream and Middle ESHA*, and 5.3-5, *Mapped Upstream ESHA*. It receives flow from an undeveloped lot north of the property, road runoff, and runoff from an adjacent parking lot. A culvert at the cul-de-sac of Clover Heights Avenue also carries flow underground and into this drainage. At the downstream end, the drainage flows into a corrugated pipe culvert under Morning View Drive. Based on aerial imagery and USGS topographic contours, this drainage continues primarily above ground until it is undergrounded at Pacific Coast Highway and discharges onto Zuma Beach at the Pacific Ocean.

The drainage is unlined along its entire length in the BSA. The upstream end of the drainage has a broad, concave cross-section with no abrupt break in bank slope. Soils in this area were saturated and surface water was present during multiple site visits. The middle and downstream end of the drainage is more incised, with steep slopes and a narrow channel bed. Some banks are eroded or undercut. Surface water was not present during multiple site visits and the soils were not saturated near the surface along the middle and downstream portions of the drainage.

Vegetation types within the ESHA and 50-foot buffer consist of riparian herb and arroyo willow thicket in the drainage bottom transitioning to coyote brush – California sagebrush scrub/upland mustards, upland mustards, and ornamental – native planting.

Drainage 4, which also contains riparian habitat (arroyo willow thicket), would also be considered an ESHA; however, this ESHA is not within 100 feet of planned impacts and is therefore not discussed further in this report.

Opportunities for restoration are present at upstream, middle, and downstream portions of the ESHA as well as undeveloped areas within the 50-foot buffer of the ESHA boundary.

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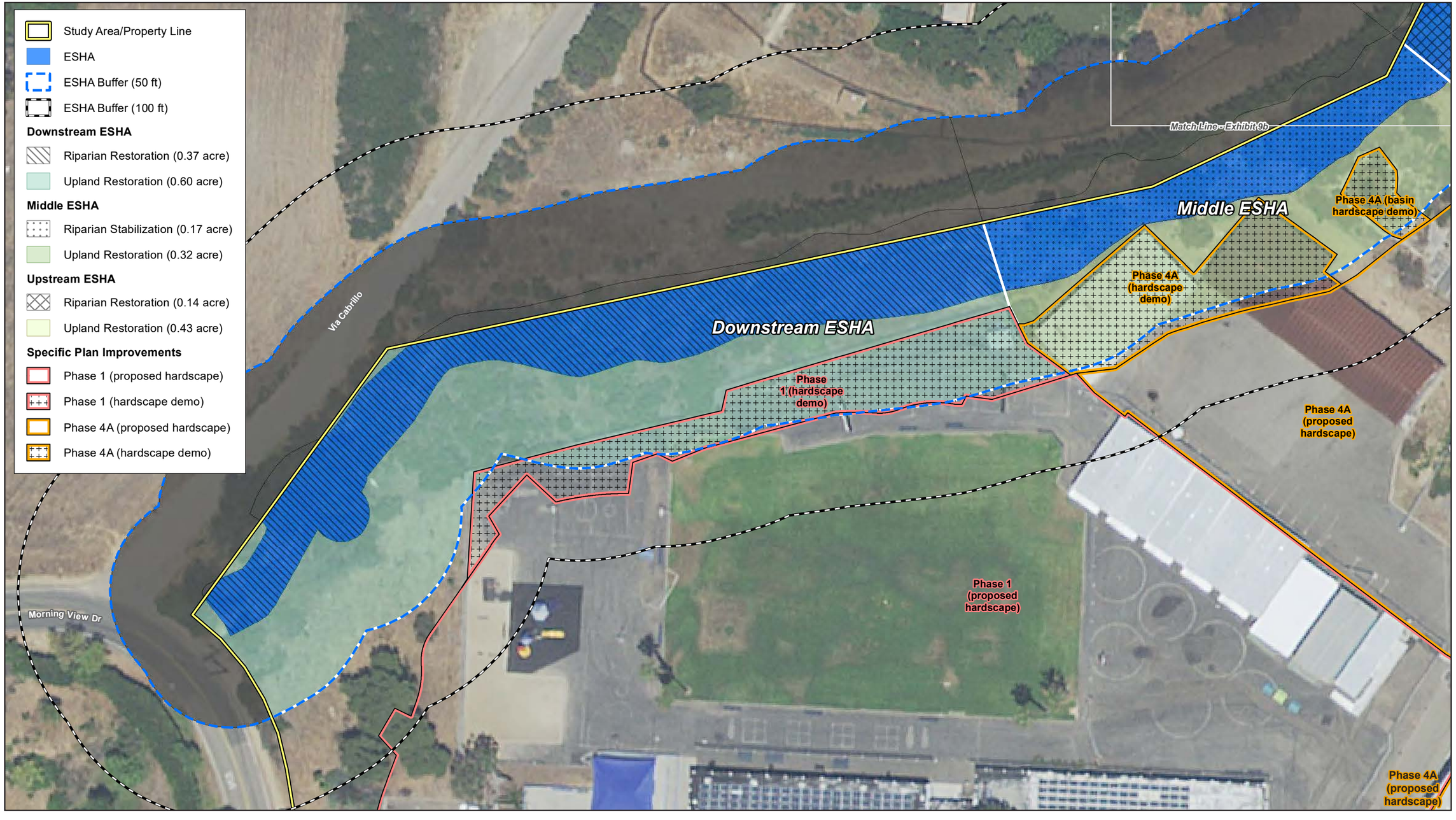
Figure 5.3-4 Mapped Downstream and Middle ESHA



Source: PSOMAS, 2021

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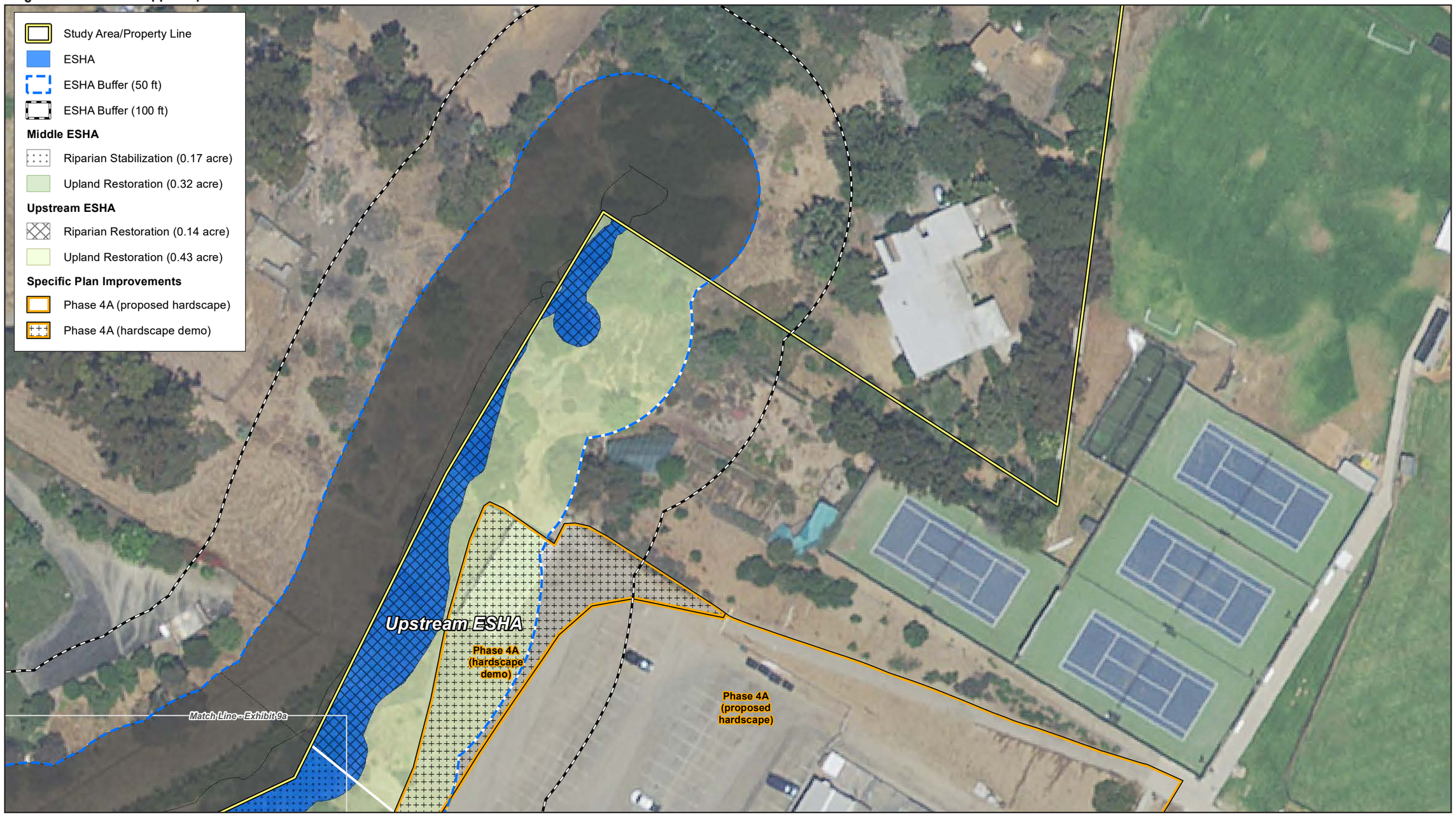
Figure 5.3-5 Mapped Upstream ESHA



Source: PSOMAS, 2021

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Critical Habitat

The BSA is not located within any USFWS Designated Critical Habitat. The nearest Designated Critical Habitat occurs approximately 0.80 mile to the north for Braunton's milk-vetch (*Astragalus brauntonii*).

Wildlife Movement Corridors

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information. Corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing routes for wildlife to escape from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (e.g., fire or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move in their home ranges in search of food, water, mates, and other necessary resources.

The BSA is relatively flat and does not contain any important travel routes or corridors such as canyons or ridgelines, and the BSA does not connect any large regional open space areas. Any movement occurring in the BSA would be restricted to local movement of resident wildlife species using the site to forage or disperse from breeding grounds. The overwhelming majority of Project impacts are contained to areas that were previously developed. In addition, restoration occurring in and adjacent to the ESHA would be a net benefit for any local wildlife movement occurring in that area.

Jurisdictional Waters and Wetlands

A Jurisdictional Delineation Report was prepared for the Santa Monica-Malibu Unified School District (SMMUSD or District) on November 12, 2019, and further refined on January 16, 2020, and April 15, 2021, to provide baseline data concerning the type and extent of water resources under the jurisdiction of the USACE, the RWQCB, the CDFW, and the CCC. The report concluded that a total of five potential jurisdictional features were mapped in the BSA: Drainage 1, Drainage 2, Drainage 3, Drainage 4, and Basin located on the northern portion of the Project Site. Drainages 1 and 2 and the Basin have defined beds and banks; Drainage 1 also has a riparian canopy over portions of its length.

One wetland resource was mapped by the National Wetlands Inventory (NWI) in the BSA, as shown on Figure 5.3-6, *National Wetlands Inventory*. Drainages 1 and 3 are mapped as wetlands by the NWI (Exhibit 4). Drainage 1 is considered to be a Palustrine wetland with scrub-shrub vegetation that is temporarily flooded (PSSA). Drainage 3 is considered to be a Riverine wetland that is intermittent and temporarily flooded (R4SBA) with the downstream end a Palustrine wetland with scrub-shrub vegetation that is seasonally flooded and diked/impounded (PSSCh). The NWI also maps a Riverine feature crossing Via Cabrillo on the western side of the BSA (labeled R4SBA on Figure 5.3-6), however, the feature labeled R4SBA on Figure 5.3-6 was not

observed during the site visits. The description for NWI mapped wetland resources is provided in Appendix C. Drainage 2 and the Basin were not mapped by the NWI.

The NWI data was used to provide additional guidance on planning the field surveys. Given that wetland features mapped for the NWI may or may not exist at present because of changing conditions and development, this resource provides preliminary data and historic data but must be ground-truthed for each wetland feature.

Figure 5.3-6 National Wetlands Inventory

Source: PSOMAS, 2021

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As shown in Table 5.3-4, *Summary of Jurisdictional Resources in the Study Area*, based on the results of all the field work, it was determined that the total amount of jurisdictional resources in the BSA are as follows:

- **USACE Jurisdiction:** 0.070 acre (0.007 acre of wetland WOTUS and 0.063 acre of non-wetland WOTUS)
- **RWQCB Jurisdiction:** 0.232 acre (0.007 acre of wetland waters of the State and 0.225 acre of non-wetland waters of the State)
- **CDFW Jurisdiction:** 1.202 acres
- **CCC Jurisdiction:** 1.202 acres (1.012 acre of ESHA)

Figures 5.3-7 through 5.3-10 show the locations of jurisdictional waters on the Project Site that would be impacted by the Proposed Project. The locations of the remaining jurisdictional waters (Drainages 3 and 4) are included in Appendix C.

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Figure 5.3-7 **Project Impacts to Jurisdictional Waters – Ordinary High Water Mark Drainage 1 and Basin**

Source: PSOMAS, 2021

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Figure 5.3-8 **Project Impacts to Jurisdictional Waters – Ordinary High Water Mark Drainage 1 and Drainage 2**

Source: PSOMAS, 2021

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Figure 5.3-9 **Project Impacts to Jurisdictional Waters – Top of Bank/Riparian Canopy Drainage 1 and Basin**

Source: PSOMAS, 2021

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Figure 5.3-10 Project Impacts to Jurisdictional Waters – Top of Bank/Riparian Canopy Drainage 1 and Drainage 2

Source: PSOMAS, 2021

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Table 5.3-4 Summary of Jurisdictional Resources in the Study Area

Jurisdictional Features	Existing Resources (Acres)					
	Drainage				Basin	Total
	1	2	3	4		
USACE Waters of the United States						
Wetlands	0.007	n/a	n/a	n/a	n/a	0.007
Non-wetland Waters	0.063	n/a	n/a	n/a	n/a	0.063
Total USACE Waters of the United States	0.070	n/a	n/a	n/a	n/a	0.070
RWCQB Waters of the State	–	–	–	–	–	–
Wetlands	0.007	n/a	n/a	n/a	n/a	0.007
Non-wetland Waters	0.063	0.076	0.030	0.023	0.033	0.225
Total RWQCB Waters of the State	**0.070**	**0.076**	**0.030**	**0.023**	**0.033**	**0.232**
Total CDFW Jurisdictional Resources	**0.681**	**0.127**	**0.030**	**0.331**	**0.033**	**1.202**
Total CCC Jurisdictional Resources	**0.681**	**0.127**	**0.030**	**0.331**	**0.033**	**1.202**

USACE: U.S. Army Corps of Engineers; RWQCB: Regional Water Quality Control Board; CDFW: California Department of Fish and Wildlife; CCC: California Coastal Commission

Table 5.3-4 summarizes the type and extent of the jurisdictional features in the BSA. Drainage 1 runs along the western boundary of the BSA. It is an unlined drainage with bed and bank. It receives flow from an undeveloped lot north of the BSA, including road runoff. A culvert at the cul-de-sac of Clover Heights Avenue also carries flow into this drainage. Drainage 2 runs from the northern edge of the BSA along the baseball fields and discharges into Drainage 1. It is unlined with bed and bank at its upstream end and is lined with concrete where it runs adjacent to the tennis courts and discharges into Drainage 1. Drainage 3 starts near the northern edge of the BSA east of the main campus and goes underground just north of the equestrian center. It is unlined with bed and bank. Drainage 4 begins at a residential property at Merritt Drive on the eastern edge of the BSA and goes through a culvert at the access road to the equestrian center. The Basin is an artificial basin created east of Drainage 1. It receives runoff directly from the adjacent parking lot and from fields via a pipe culvert.

Waters of the United States Determination

Proviso: Due to a recent federal district court decision (August 30, 2021), the current definition of WOTUS (as determined by the 2020 Navigable Waters Protection Rule) has been remanded and vacated. The U.S.

Environmental Protection Agency (USEPA) and the USACE are currently in the process of providing guidance on WOTUS. The determination of the extent of WOTUS in the BSA is subject to the new guidance from the USEPA and the USACE. The discussion below is based on the 2020 Navigable Waters Protection Rule.

Connectivity to a Traditional Navigable Water

The linear extent of Drainage 1 was delineated from the northern edge of the BSA downstream to a corrugated pipe culvert passing under Morning View Drive. Based on aerial imagery and USGS topographic contours, this drainage continues primarily above ground until it is undergrounded at PCH and discharges onto Zuma Beach to the Pacific Ocean, a TNW. Under the current definition of WOTUS, relatively permanent waters connected to a TNW are considered WOTUS, while ephemeral waters are not considered jurisdictional. Surface water and soil saturation were observed at the upstream end of Drainage 1 during the November 12, 2019, and January 16, 2020, site visits. Given that the initial site visit was not preceded by a rainfall event (the only rainfall noted in the region was 0.01 inch on November 2, 2019; CIMIS 2019), the drainage is considered to exhibit surface flow more than just ephemerally (i.e., for extended periods and not only following a rainfall event). Therefore, Drainage 1 is considered to be a relatively permanent water. As such, it is a WOTUS. Drainage 2 crosses an undeveloped lot north of the campus athletic fields and discharges into Drainage 1. Surface water or soil saturation were not observed during either survey visit and the drainage was unvegetated and so did not support plant species that rely on consistent water. This drainage appears to carry only ephemeral flow. Given the repeal of the 2015 Clean Water Rule, ephemeral waters are not considered jurisdictional. Therefore, Drainage 2 is not considered to be a WOTUS.

Drainage 3 crosses the undeveloped area east of the main campus and is undergrounded north of the equestrian center. Aerial imagery does not show if it resurfaces, but the USGS topographic map shows it continuing to PCH. It is likely that this drainage eventually discharges in the Pacific Ocean. Surface water or soil saturation were not observed during the survey visit and this drainage does not support plant species that rely on consistent water. This drainage appears to carry only ephemeral flow. Therefore, Drainage 3 is not considered to be a WOTUS. Drainage 4 begins at a residential property at Merritt Drive on the eastern edge of the BSA and goes under a culvert at the access road to the equestrian center; it appears to dissipate on the other side of the access road. As such, it does not have a connection to a TNW and would be considered an isolated water. Therefore, Drainage 4 is not considered to be a WOTUS. The Basin drains into Drainage 1 via a pipe culvert. Artificial, constructed settling basins created in dry land are not considered WOTUS. Given that the Basin was artificially created in uplands and receives ephemeral surface flow only following rainfall events, it is not considered to be a WOTUS.

Limits of Waters of the United States

Drainage 1 was determined to be a WOTUS. An Arid West Ephemeral and Intermittent Streams OHWM Datasheet was completed for a representative area showing evidence of an OHWM to determine extent of WOTUS (see Attachment C). Evidence of an OHWM for Drainage 1 consists of a change in sediment texture, a change in vegetation species (from obligate, facultative wetland, or facultative species within the OHWM to upland species on and above the banks; most noticeable at the upstream end of the drainage), a change in vegetation cover (high density within the OHWM; most noticeable at the upstream end of the drainage), and

a break in bank slope (most noticeable at the downstream end of the drainage where the banks are steeper). Approximately 0.007 acre of WOTUS under the regulatory authority of the USACE occurs in the BSA (Table 1). This is shown on Figure 5.3-6 as the areas within the OHWM for Drainage 1.

Wetlands Determination

Paired sampling points (i.e., one placed within the OHWM in a vegetated area and one placed adjacent, but outside the OHWM) were assessed at the upstream end of Drainage 1 where hydrophytic vegetation was most abundant. A formal sampling point was not assessed in downstream portions of Drainage 1, but an exploratory test pit was dug under the willow riparian canopy and no indicators of hydric soils were observed there. Therefore, areas lacking herbaceous hydrophytic vegetation were considered non-wetland WOTUS. One sampling point was assessed adjacent to vegetation in the Basin in order to determine whether it would be considered wetland waters of the State, discussed below. Table 5.3-5, *Summary of Sampling Point Data*, provides a summary of data collected at each sampling point.

Table 5.3-5 Summary of Sampling Point Data

Sampling Point	Vegetated	Dominance Test Result[1]	Hydric Soil Indicators	Wetlands Hydrology Indicator	Wetland?
1A	Yes	Pass	F6	A1, A3	Yes
1B	No	N/A	F6	A3	No
2A	Yes	Pass	A4	A1, A2, A3, C1	Yes
2B	No	N/A	N/A	N/A	No
3	Yes	Pass	N/A	B3, B10	No

Source: Psomas 2021
Notes: N/A: not applicable

[1]Greater than 50 percent of dominant species are classified as obligate wetland, facultative wetland, or facultative.

Hydric Soil Indicators
A4 Hydrogen Sulfide
F6 Redox Dark Surface

Wetland Hydrology Indicators
A1 Surface Water
A2 High Water Table
A3 Saturation
B3 Drift Deposits
B10 Drainage Patterns
C1 Hydrogen Sulfide Odor

Vegetation

Sampling points 1A and 3 were vegetated and passed the dominance test. Therefore, they met the hydrophytic vegetation criterion for wetlands. Sampling point 1B was on an upland slope above the OHWM that was unvegetated and did not meet the hydrophytic vegetation criterion for wetlands.

Soils

Sampling points 1A and 1B contained indicators of hydric soil. Therefore, these areas met the hydric soil criterion for wetlands.

Hydrology

Sampling points 1A, 1B, and 3 contained indicators of wetland hydrology. Therefore, these areas met the hydrology criterion for wetlands.

Results

Sampling point 1A in Drainage 1 met all three parameters for wetlands. Similar vegetation (specifically areas containing obligate wetland plant species) and hydrology indicators were observed downstream from this sampling point. Areas with these similar conditions were considered wetland WOTUS. The upstream portion of Drainage 1 was, therefore, mapped as wetland WOTUS while the downstream portion was mapped as non-wetland waters. Therefore, of the 0.070 acre of WOTUS mapped in the BSA, 0.007 acre would be considered wetlands.

Regional Water Quality Control Board Jurisdiction

All features with USACE jurisdiction, i.e., Drainage 1, are also subject to the jurisdiction of the RWQCB. In addition, the Porter-Cologne Act provides the State with authority to regulate waters of the State that are not under USACE jurisdiction. Areas within the OHWM of Drainages 2, 3, and 4 and the Basin would be subject to the jurisdiction of the RWQCB. Therefore, approximately 0.232 acre of waters of the State under the regulatory authority of the RWQCB occurs in the BSA (Table 5.3-4). Of this 0.232 acre, 0.007 acre would be considered wetland waters of the State in Drainage 1. This is shown in Appendix C as the areas within the OHWM for Drainages 1, 2, 3, 4, and the Basin.

California Department of Fish and Wildlife Jurisdiction

Drainages 1, 2, 3, and 4 and the Basin have defined beds and banks; Drainages 1 and 4 also have a riparian canopy. These features would be under the regulatory authority of the CDFW. Approximately 1.202 acres of waters under the regulatory authority of the CDFW occurs in the BSA (Table 5.3-4). This is shown in Appendix C as all areas within the top of bank/riparian canopy boundaries.

California Coastal Commission Jurisdiction

Because the CCC uses a one parameter approach to identify the limits of jurisdictional wetlands, all features found within the BSA are subject to CCC jurisdiction based on all of them having either wetland hydrology and/or hydrophytic vegetation. Approximately 1.202 acres of wetlands under the regulatory authority of the CCC occurs in the BSA. (Table 5.3-4). This is shown on Exhibit 6 as all areas within the top of bank/riparian canopy boundaries. Drainage 1 would be considered an ESHA in the City of Malibu's LCP because it encompasses both wetland and riparian habitat. Drainage 4, which also contains riparian habitat, would also be considered an ESHA. While the Basin contains hydrophytic vegetation, it is artificially created and located adjacent to parking areas and buildings. As such, it would not provide the functions of habitat required to meet the definitions of an ESHA. In addition, to function as designed (i.e., to accept storm water runoff from the campus), it must be periodically cleaned out to retain the capacity to prevent flooding. To create an ESHA boundary around the Basin, and its associated buffer, would prevent such maintenance. Drainages 2 and 3 are

ephemeral and flow primarily through upland areas dominated by weedy, non-native vegetation. Given the low habitat value of these areas, Drainages 2 and 3 would not be considered ESHAs. Therefore, 1.012 acres of ESHAs (i.e., the area within top of bank/riparian canopy of Drainages 1 and 4) occur within the BSA.

5.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a Project would normally have a significant effect on the environment if the Project would:

B-1 Have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

B-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

B-3 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.

B-4 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.

B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

B-6 Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.3.3 Environmental Impacts

5.3.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

For the purposes of the impact analysis, "substantial adverse effect" is defined as the loss or harm of a magnitude which, based on current scientific data and knowledge, would (1) substantially diminish population numbers of a species or distribution of a habitat type within the region or (2) eliminate the functions and values of a biological resource in the region.

Impact 5.3-1: Development of the Proposed Project could impact sensitive species [Threshold BIO-1]

Common Wildlife

Native vegetation provides nesting, foraging, roosting, and denning opportunities for a variety of wildlife species. The Proposed Project would result in the loss of approximately 0.60 acre of native habitat over all phases. The Proposed Project would also impact approximately 16.87 acres of developed/ornamental vegetation and a total of approximately 1.97 acres of impacts to disturbed areas. A total of 1.01 acres of non-native or weedy vegetation (turf and upland mustards) would be impacted. A total of 0.29 acre of ornamental – planted habitat would be impacted by the Proposed Project. Removing or altering non-native habitats on the Project Site would result in the loss of small mammals, reptiles, amphibians, and animals of slow mobility that live in the Proposed Project's direct impact area. More mobile wildlife species now using the Project Site would be forced to move into remaining areas of open space, consequently increasing competition for available resources in those areas. This situation may result in the loss of individuals that cannot successfully compete. The loss of native and non-native vegetation that provides wildlife habitat is considered an adverse impact. However, the loss of a small pocket of native habitat (0.60 acre) and disturbed, developed, and/or non-native habitat (20.14 acres) would not be expected to reduce wildlife populations below self-sustaining levels because the combined 20.74 acres of degraded habitat are expected to support small numbers of individuals due to the existing habitat's marginal suitability for resident wildlife based on its fragmented nature, lack of species diversity and connectivity to adjacent native habitat, combined with existing developed areas surrounding the Proposed Project. Therefore, impacts to these areas are considered adverse but **less than significant**, and no mitigation would be required.

Direct Impacts to Special Status or Sensitive Biological Resources

Implementation of the Proposed Project may result in impacts on special status plant and wildlife species that occur in the Survey Area. Potential impacts on special status species were evaluated by determining the impacts on habitat that the species are expected to occupy or may occupy.

Special Status Plants

Of the 37 special status plant species known to occur in the region and listed in Table 5.3-2, 34 of these have no potential to occur in the BSA due to lack of suitable habitat and/or they were not observed during focused surveys. Therefore, there would be no impact on those species. One of the species listed in Table 5.3-2, the slender mariposa lily, has limited potential to occur; and two species, the California black walnut and Coulter's matilija poppy, were observed within the BSA, but outside the impact area for all Phases. While focused special status plant surveys were not conducted for the far eastern portion of the BSA (which includes a portion of Phase 4 only), special status plants incidentally observed were mapped during vegetation mapping. Potentially suitable habitat for special status plant species does not occur within or adjacent to this portion of Phase 4, based on a habitat assessment during the April 15, 2021, field visit.

No impacts to special status plants would occur through Project implementation because no special status plants currently occur and are not expected to occur in the future within the Project impact area for all Phases. Habitat suitability for special status plants is expected to stay at baseline or degrade further in the future due

anticipated future development in the surrounding area. Therefore, no impacts to special status plants would occur with Project implementation, and no mitigation would be required.

Special Status Wildlife

Eucalyptus groves within the Project boundary have the potential to support overwintering monarch butterflies. Monarch butterfly overwintering sites are not known from the BSA but are known from the Project region in recent history and are presumed extant according to the CNDDB. No direct impacts to the eucalyptus groves in the BSA would occur during Project implementation, and the groves are at enough distance (approximately 170 feet) that indirect impacts are not expected. No impacts to monarch butterflies are anticipated; therefore, no mitigation would be required.

One special status reptile has the potential to occur in the Project impact area, the San Diegan tiger whiptail. Project implementation would result in the loss of 0.31 acre of potentially suitable habitat types (e.g., California sagebrush scrub, coyote brush – California sagebrush scrub/upland mustards, and riparian herb) for this species. This 0.31 acre would support very small numbers of individuals and the loss is considered very small due to the fragmented and degraded nature of this habitat. These impacts would be considered adverse but not substantial enough to cause regional populations to drop below self-sustaining numbers. Therefore, these impacts are considered **less than significant**, and no mitigation would be required.

A burrowing owl was incidentally observed to be wintering on the Project Site in the north-central portion of the site (outside of the Project impact area). Potentially suitable burrowing owl habitat occurs in Phase 3, Parking Lot F. Implementation of Phase 3 may directly impact 0.17 acre of because no potentially suitable habitat for the burrowing owl, while implementation would be directly impacted. of Phases 2 and 4 may indirectly impact the burrowing owl, if present in adjacent potentially suitable habitat. Any impacts to burrowing owl would be considered **potentially significant**. Implementation of Mitigation Measure, BIO-1, which requires adherence to the CDFW Burrowing Owl Mitigation Guidelines, would reduce potential impacts to **less than significant**.

Several common bird and raptor species may nest in the Survey Area. The MBTA protects migratory birds, their nests, and eggs. If construction is initiated during nesting season for passerines and raptors (i.e., February 1–August 31), it could impact nesting birds protected by the MBTA and *California Fish and Game Code* §§ 3503, 3503.5, and 3513. Common raptor species including owls have the potential to nest on the Project Site. Should an active raptor nest be found on the Project Site, the loss of an active nest would be considered a violation of the *California Fish and Game Code* (§§ 3503, 3503.5, and 3513). The loss of any active bird or raptor nest would be considered a **potentially significant** impact. Implementation of Mitigation Measure BIO-2 requiring nesting bird surveys and protection would reduce this impact to a **less than significant** level.

The western mastiff bat has the potential to occur in the BSA for foraging. There is no suitable roosting habitat in the BSA. Construction activities would only occur during daylight hours; therefore, nocturnal foraging would continue to be available over the Project impact area throughout the duration of construction and would remain unchanged following completion of the Proposed Project. There are no impacts to western mastiff bat would occur with Project implementation and mitigation would not be required.

Indirect Impacts to Special Status or Sensitive Biological Resources

Indirect impacts are those related to disturbance by construction (such as noise, dust, and urban pollutants), long-term use of the Project Site, and the Proposed Project's operational effect on adjacent habitat areas to common species. The indirect impact discussion below includes a general assessment of the potential indirect effects (i.e., noise, increased dust and urban pollutants, night lighting, and human activity) of the construction and operation of the Proposed Project.

Noise Impacts

Noise levels in the Survey Area would be expected to increase over present levels during phased construction and operation of the Proposed Project. During construction and operation, temporary noise impacts have the potential to disrupt foraging, nesting, roosting, and/or denning activities for wildlife species occurring within or adjacent to Project Work Areas. Although final use may slightly increase noise over ambient, it would be less than construction. Wildlife species stressed by noise may disperse from the habitat located in the immediate vicinity of the Proposed Project. Because the Proposed Project disturbance areas are limited in extent, this impact is considered adverse but **less than significant** and no mitigation would be required. However, if raptor species are nesting in the vicinity of the Proposed Project during construction, they may be temporarily displaced by construction noise. Indirect noise impacts on these species would be considered significant because nesting birds are protected by the California Fish and Game Code. Impacts on active nests would be reduced to a **less than significant** level with implementation of Mitigation Measure BIO-2 requiring nesting bird surveys and protection.

Impact 5.3-2: Development of the Proposed Project would result in the loss of sensitive habitat types. [Threshold BIO-2]

Direct Impacts to Sensitive Habitat Types

The Specific Plan would be constructed in four phases, with construction activities anticipated to begin in fall 2022 and completed in summer 2031. Each phase would include the following activities—grading and excavation, trenching for site utilities, demolition and construction of the buildings, paving, and finishing. The construction phasing plan is shown in Figure 3-15. Direct impacts to sensitive biological resources for the Proposed Project would include such impacts as indicated by a red boundary on Figure 5.3-11. A brief description of each Phase follows.

Phase 1

Phase 1 would consist of demolition of all existing former JCES campus buildings and associated portables and construction of Building C (, Parking Lot C, Parking D, and the Drop-off/Pick-up area. Phase 11 is anticipated to begin in Fall 2022 and completed by Summer 2024.

Phase 2

Phase 2 would consist of construction of the Building D and the Middle School Quad. Phase 2 is anticipated to begin in Fall 2024 and completed by Fall 2026.

Phase 3

Phase 3 would consist of demolition of MMHS Buildings F, I; the existing field house; and the portables adjacent to the existing pool, and construction of Buildings J, L, and M and Parking Lot E and F. Phase 3 is anticipated to begin in Fall 2028 and completed by Fall 2030.

Phase 4

Phase 4 would involve the demolition of MMHS Buildings K, J, J1; the pool and pool building; and Bus Barn, and the relocation of the Boys & Girls Club and construction of the new Buildings H and I. This phase would also require the demolition of the existing MMHS Building H. Phase 4 is anticipated to begin in Spring 2030 and completed by Spring 2031.

Vegetation types and other areas that would be impacted are listed in Table 5.3-6, *Impacts to Vegetation Types and Other Areas in the Study Area*, and illustrated on Figure 5.3-11, *Project Impacts to Sensitive Biological Resources*.

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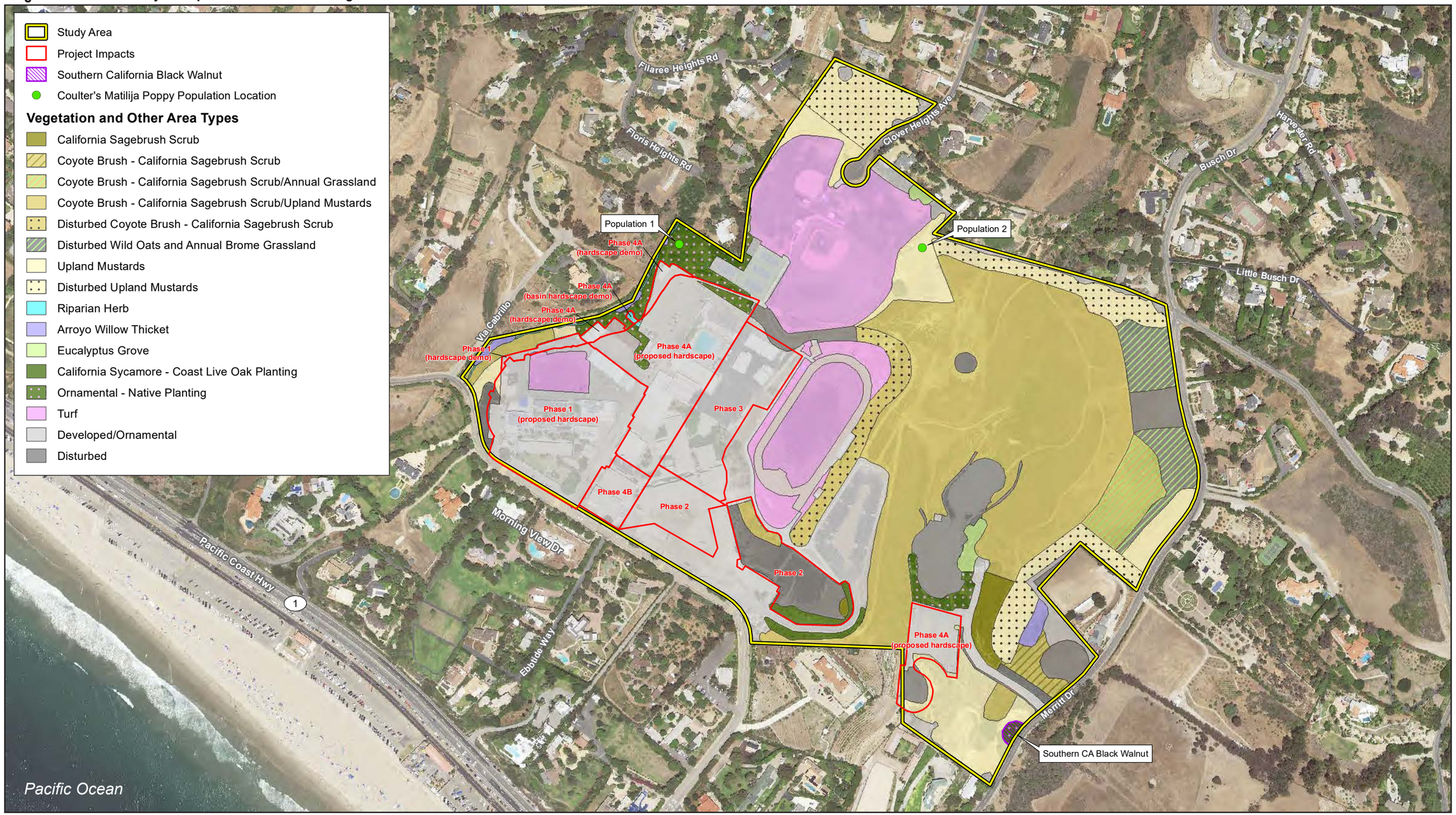
Figure 5.3-11 Project Impacts to Sensitive Biological Resources



Source: PSOMAS, 2021

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Table 5.3-6 Impacts to Vegetation Types and Other Areas in the Study Area

Vegetation Type or Other Area	Phase 1	Phase 2	Phase 3	Phase 4	Total
California Sagebrush Scrub	–	0.04	–	–	0.04
Coyote Brush – California Sagebrush Scrub	–	–	–	–	–
Coyote Brush – California Sagebrush Scrub/Upland Mustards	–	0.24	–	–	0.24
Coyote Brush – California Sagebrush Scrub/Annual Grassland	–	–	–	–	–
Disturbed Coyote Brush – California Sagebrush Scrub	–	–	–	–	–
Upland Mustards	0.03	–	–	0.21	0.24
Disturbed Upland Mustards	–	–	0.17	–	–
Disturbed Wild Oats and Annual Brome Grassland	–	–	–	–	–
Riparian Herb	–	–	–	0.03	0.03
Arroyo Willow Thicket	–	–	–	–	–
Eucalyptus Grove	–	–	–	–	–
California Sycamore – Coast Live Oak Planting	–	0.29	–	–	0.29
Ornamental – Native Planting	–	–	–	0.29	0.29
Turf	0.77	–	–	–	0.77
Developed/Ornamental	5.09	1.64	3.30	6.9	16.87
Disturbed	0.05	1.63	0.04	0.25	1.97
Total	**5.93**	**3.84**	**3.50**	**7.68**	**20.95**

Source: Psomas Biological Assessment Report, September 2021.

Approximately 0.04 acre of California sagebrush scrub would be impacted by the Proposed Project in Phase 2. California sagebrush scrub may be considered locally sensitive due to its ability to support the Federally Threatened coastal California gnatcatcher (*Polioptila californica californica*). However, the 0.04 acres of California sagebrush scrub in the Survey Area is isolated and limited in extent rendering it unsuitable to support breeding or foraging gnatcatcher. In addition, the coastal California gnatcatcher does not occur within the vicinity of the BSA and is not expected to occur in the BSA. Therefore, impacts to 0.04 acre of this vegetation type are considered adverse but **less than significant** and no mitigation would be required.

Approximately 0.24 acre of coyote brush – California sagebrush scrub/upland mustards would be impacted by Project implementation in Phase 2. This is a small, isolated patch of degraded scrub habitat with relatively low

biological value due to: (1) the low cover of native species and high cover of noxious weeds which are not preferred by wildlife; and (2) distance from healthy native habitat that would support a suite of native wildlife species. Impacts to 0.24 acre of this vegetation type are considered adverse but **less than significant** and no mitigation would be required.

Approximately 0.24 acre of upland mustard habitat by implementation of the Proposed Project in Phases 1 and 4, and 0.17 acre of disturbed upland mustards habitat will be impacted by implementation of the Proposed Project in Phase 3. Upland mustard habitat is dominated by weedy non-native species, while disturbed upland mustard habitat is also dominated by weedy non-native species but also contains visible mechanical disturbances. These vegetation types are considered low biological value because they are not preferred by native wildlife species. Impacts to this vegetation type is considered **less than significant**, and no mitigation would be required.

Approximately 0.03 acre of riparian herb habitat would be impacted by implementation of the Proposed Project in Phase 4. Impacts on this vegetation type would be considered adverse but relatively minor because of the isolated nature, extremely limited extent, and the species composition is considered relatively common in the Project region. Therefore, impacts to this vegetation type are considered **less than significant**, and no mitigation would be required.

Approximately 0.29 acre of California sycamore – coast live oak planting would be impacted by Project implementation in Phase 2. This vegetation type is intended to be ornamental and therefore, offers much lower biological value than a naturally occurring woodland with mature trees and a healthy understory. Therefore, impacts to this vegetation type are considered **less than significant**, and no mitigation would be required.

Approximately 0.29 acre of ornamental – native planting would be impacted by Project implementation in Phase 4. This vegetation type is not naturally occurring and offers low biological value due to the high proportion of non-native weedy species. Impacts to this vegetation type are considered **less than significant**, and no mitigation would be required.

Approximately 0.77 acre of turf would be impacted by Project implementation in Phase 1. Impacts on this vegetation type would be considered adverse but relatively minor because this vegetation type is common throughout the region, not naturally occurring, and of low biological value. Therefore, impacts to these vegetation types are considered **less than significant**, and no mitigation would be required.

Approximately 16.87 acres of developed/ornamental and 1.97 acres of disturbed habitat would be impacted by Project implementation in Phases 1 through 4. Impacts on these vegetation types would be considered adverse but relatively minor because these vegetation types are considered common in the Project region and offer limited biological value because they are mostly devoid of any vegetation, and the vegetation that does occur is non-native which is not preferred by native wildlife species. Therefore, impacts to these vegetation types are considered **less than significant**, and no mitigation would be required.

The vegetation types discussed above are all common throughout the region. The special status vegetation type that occurs in the BSA, arroyo willow thicket, would not be impacted during Project implementation, therefore mitigation would not be required. Impacts to special status vegetation types would be considered **potentially**

significant. Vegetation types in the BSA may change over the course of time. In order to ensure no special status vegetation types are impacted during the course of the Proposed Project, Mitigation Measure BIO-3 is included which requires future assessments of vegetation types to ensure conditions remain the same. If impacts to special status vegetation types are anticipated, Mitigation Measure, BIO-4, which requires habitat restoration, would be implemented to ensure impacts are reduced to **less than significant**.

Environmentally Sensitive Habitat Area

Consistent with guidelines provided in the LCP, a qualified biologist delineated the ESHA boundary as the outer edge of the canopy of riparian vegetation and where riparian vegetation was not present, the ESHA boundary was determined by the top of bank. While the LCP ESHA overlay zone specifies a buffer to "ensure continued protection of the habitat areas" and for new development specifically references a 100 ft buffer "from the outer edge of the bank of the subject stream as the area within the top of bank and outer riparian canopy boundaries", it was noted that over 85 percent of the ESHA's 100 foot buffer had been developed in the years prior to the enactment of the California Coastal Act of 1972.

During the early stages of the specific planning process, among other Project objectives, the District recognized that the ESHA offered opportunities to enhance their educational goals of providing for outdoor learning spaces and interpretive opportunities; as well as providing an opportunity to restore the natural environment and improve campus connectivity through the development of the proposed pedestrian pathways. The District recognized that the existing conditions included incompatible development into the edge of the ESHA bank as well as the degraded nature of the ESHA itself. In discussions with the CCC, the District decided that it could restore the degraded drainage comprised of approximately 0.7 acres as well as 1.35 acres of upland areas within the ESHA's 50-foot buffer, and still meet the educational and design goals for the campus. In addition, within the remaining 100 feet beyond the 50-foot ESHA buffer, the Proposed Project would include land uses compatible with the natural habitat that would not incur in significant impacts to the natural habitat, including a looping trail, and interpretive stations overlooking the ESHA.

The ecological benefits of the restoration will increase the diversity and cover of native riparian and upland plants within the ESHA and its 50-foot buffer by the removing non-native species (including those rated by the California Invasive Plant Council); improve conditions for wildlife species including pollinator species that rely on wetland, riparian, and adjacent upland habitats for food and shelter; and reduce erosion and sedimentation. Additional benefits include the use of permeable material for the trails and parking stalls within the 100-foot buffer to provide a more natural hydrologic balance and reduce the runoff volume by trapping and slowly releasing precipitation into the ground instead of allowing it to flow into receiving waters as effluent.

Figures 3-14a, 3-14b, and 3-14c in Chapter 3, *Project Description*, depict the proposed ESHA recreation area. The restoration of the degraded 0.7 acre of drainage and 1.35 acres of upland areas within the ESHA's 50-foot buffer does not constitute mitigation for any significant impact to a biological resource, but rather is a voluntary effort on the part of the District that would be implemented during Phase 1 construction of the Proposed Project as well as Phase 4A construction planned for the future. Therefore, impacts to the ESHA would be **less than significant**.

Impact 5.3-3: The Proposed Project would impact approximately 0.033 acres of USACE Jurisdiction, 0.033 of RWQCB Jurisdiction, and 0.033 of CDFW Jurisdiction waters [Threshold B-3]

Jurisdictional Resources

As described previously and shown on Figures 5.3-7 through 5.3-10 and Tables 5.3-4 and 5.3-7, *Summary of Jurisdictional Impacts* (also included in Appendix C), the Proposed Project would impact a total of 0.033 acres of waters under the jurisdiction of RWQCB. Phase 4A of the Proposed Project would impact a total of 0.033 acres of waters under the jurisdiction of CDFW. No other Phase of the Project impacts jurisdictional features. Jurisdictional resources are protected by §§ 401 and 404 of the CWA and by the *California Fish and Game Code* (§§ 1600 through 1616). Impacts on jurisdictional resources would be significant and would require permitting with each of the resource agencies. Implementation of Mitigation Measure, BIO-5 would reduce this impact to **less than significant**.

Table 5.3-7 Summary of Jurisdictional Impacts

Jurisdictional Resources	Total (Acres)
Total USACE Jurisdiction	-
Total RWQCB Jurisdiction	0.033
Total CDFW Jurisdiction	0.033

Source: Psomas Biological Assessment Report, September 2021.
USACE: U.S. Army of Engineers; RWQCB: Regional Water Quality Control Board; CDFW: California Department of Fish and Wildlife

Impact 5.3-4: The Proposed Project would not affect wildlife movement. [Threshold B-4]

Wildlife Movement and Habitat Fragmentation

The Project Site does not represent an area of important regional movement. The existing structures and paved parking lots, adjacent Pacific Coast Highway, and surrounding residential streets and structures present a barrier to movement for wildlife moving through the area. Wildlife looking to move through the foothills would likely utilize canyons in the open space north of the Project Site. Proposed Project activities would not impact these open space areas. The adjacent canyons would continue to be available for movement; thus, regional wildlife movement would not be disrupted, and impacts on regional wildlife movement would be considered **less than significant** and no mitigation would be required.

Construction activities would create dust and noise within and adjacent to the impact area. During active construction, wildlife movement may be deterred by noise and human activity; however, most wildlife movement would occur at night while construction activities would occur during the day. Should any temporary fencing be needed during construction, it would meet the requirements of the LCP and LUP, as described above, and would be wildlife permeable. Proposed Project implementation would not isolate any native habitats or create any bottle necks for wildlife movement because small amounts of native vegetation, on the edges of

disturbance or development, would be impacted. Therefore, construction impacts on local wildlife movement would be considered adverse, but **less than significant** and no mitigation would be required.

Impact 5.3-5: The Proposed Project would require compliance with the local tree ordinance [Thresholds B-5 and B-6]

The Project Site, and the entire City of Malibu, is located within the California coastal zone, which means that all development and activity occurring within City limits is subject to the regulations of the City's LCP. As described under Impact 5.3-3, the portion of work on the Project Site within the ESHA would be consistent with guidelines provided in the LCP (City of Malibu 2021bb).

The Project Site is not located within any other adopted Habitat Conservation Plan, Natural Community Conservation Plan, Environmentally Sensitive Habitat Area (ESHA), or similar plan and does not conflict with the provisions of any local guidelines or plans (Malibu LUP) for environmentally sensitive habitat areas. The Project Site is not located within, or proximate to, any Significant Ecological Area (SEA), Land Trust, or Conservation Plan (City of Malibu 2021cc).

Trees

The Malibu Local Coastal Program Native Tree Protection Ordinance protects five native tree species (oak [*Quercus* sp.], California walnut [*Juglans californica*], western sycamore [*Platanus racemosa*], alder [*Alnus rhombifol*a], and toyon [*Heteromeles arbutifolia*]) that have at least one trunk measuring six inches or more in diameter, or a combination of any two trunks measuring a total of eight inches or more in diameter. A number of protected trees have been mapped in the BSA, as shown in Appendix C. Protected tree species may occur within close proximity to Proposed Project activities. Impacts to protected trees may be **potentially significant**. Implementation of Mitigation Measure, BIO-6, which requires adherence to the Malibu Local Coastal Program Native Tree Protection Ordinance prior to the commencement of each Phase of construction, would reduce any potentially significant impacts to **less than significant**.

5.3.4 Mitigation Measures

Impact 5.3-1

BIO-1 **Pre-Construction Burrowing Owl Surveys:** In the year prior to initiation of Proposed Project activities in Phase 4, the Proposed Project shall conduct pre-construction burrowing owl surveys in accordance with the 2012 CDFW Burrowing Owl Consortium Survey Protocol and Mitigation Guidelines (CDFW 2012). If wintering or breeding burrowing owl are observed adjacent to the impact area, mitigation shall be conducted in accordance with the CDFW guidelines (CDFW 2012).

Impact 5.3-1

BIO-2 **Pre-Construction Nesting Bird Surveys:** To the extent possible, vegetation removal shall be conducted during the non-breeding season (i.e., September 1 to January 31) in order to

minimize direct impacts on nesting birds and raptors. If construction activities would be initiated during the breeding season for nesting birds/raptors (i.e., February 1–August 31), a pre-construction survey will be conducted by a qualified Biologist within three days prior to the initiation of construction (including demolition of structures). The area will be surveyed for 2 hours between dawn and 10:00 AM on five occasions with at least one week between surveys. If there is appropriate habitat for owls on site, on at least three of the surveys, surveys will also be conducted during the period immediately before nightfall. The nesting bird/raptor Survey Area will include a buffer of 300 feet around the work area for nesting birds and a buffer of 500 feet around the work area for nesting raptors (including burrowing owl). If the Biologist does not find any active nests in or immediately adjacent to the impact area, construction activities can proceed.

If the Biologist detects an active nest within or immediately adjacent to the construction area and determines that the nest may be impacted or breeding activities substantially disrupted by increased activity around the nest, the Biologist shall determine an appropriate protective buffer around the nest depending on the sensitivity of the species and the nature of the construction activity. The protective buffer shall be between 25 to 300 feet for nesting birds; 300 to 500 feet for nesting raptors. The active nest will be protected within the designated buffer until nesting activity has ended. Any protective buffers will be mapped on construction plans and designated as "Environmentally Sensitive Areas". Construction can proceed within the protective buffer when the qualified Biologist has determined that the nest is no longer active (i.e., fledglings have left the nest or the nest has failed).

Impact 5.3-2

BIO-3 **Vegetation Assessments:** Vegetation types shall be verified prior to work activities occurring in Phases 2 and 4 if seven years have elapsed from the latest point in time the vegetation mapping described in this Biological Assessment was conducted (April 15, 2021). Vegetation types in the BSA shall be assessed during a field visit and compared to the vegetation types mapped and described herein. Any changes shall be documented in a revised vegetation map and provided to the City of Malibu and the District. Special status vegetation types shall be identified, and if impacts are anticipated, the Proposed Project shall comply with Mitigation Measure, BIO-4.

BIO-4 **Special Status Vegetation Types:** The loss of special status vegetation types within the impact area is considered a significant impact. These vegetation types will be restored onsite or, if appropriate, offsite at a ratio of not less than 1:1, as agreed to by the City of Malibu and the District. A revegetation program shall be implemented in accordance with a City-approved landscape palette on all graded areas not utilized for improvements or structures. The revegetation program will be submitted to the City of Malibu for review and approval by a qualified biologist prior to issuance of grading permits. Restoration will consist of seeding and container planting of appropriate species. Impacts are considered less than significant after implementation of the following measures:

A detailed restoration program will be developed prior to map recordation and implemented, and will contain the following items:

- *Responsibilities and qualifications of the personnel to implement and supervise the plan*. The responsibilities of the landowner, specialists, and maintenance personnel that will supervise and implement the plan will be specified.
- *Site selection*. The site(s) for mitigation will be determined in coordination with the District and the City of Malibu. The site will be located in a dedicated open space area and will be contiguous with other natural open space areas.
- *Site preparation and planting implementation*. The site preparation will include the following: 1) protection of existing native species, 2) trash and weed removal, 3) native species salvage and reuse (i.e., duff), 4) soil treatments (i.e., imprinting, decompacting), 5) erosion control measures (i.e., rice or willow wattles), and 6) native seed mix application.
- *Schedule*. Establishment of restoration/revegetation sites will be conducted between October 1 and January 30. Seeding and planting of container plants will take place immediately after preparation of the restoration sites.
- *Maintenance plan/guidelines*. The maintenance plan will include the following: 1) weed control, 2) herbivory control, 3) trash removal, 4) irrigation system maintenance, 5) maintenance training, and 6) replacement planting.
- *Monitoring Plan*. The monitoring plan will include the following: 1) qualitative monitoring (i.e., photographs and general observations), 2) quantitative monitoring (i.e., randomly placed transects), 3) performance criteria as approved by the City, 4) monthly reports for the first year and bimonthly reports thereafter, and 5) annual reports which will be submitted to the City for three to five years. The monitoring will be conducted for three to five years, depending upon the performance of the mitigation site.
- *Long-term preservation*. Long-term preservation of the site will be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development.
- *Performance standards will be identified and will apply for the revegetation of special status vegetation types*. Revegetation will be considered successful at three years if the percent cover and species diversity of the restored and/or created habitat areas are similar to percent cover and species diversity of adjacent existing habitats, as determined by quantitative testing of existing, restored, and created habitat areas.

In addition, earth-moving equipment will avoid maneuvering in areas outside the identified limits of grading in order to avoid disturbing open space areas that will remain undeveloped. Prior to grading, the construction boundary limits will be marked by the construction supervisor and the Project biologist. These limits will be identified on the grading plan. The

District will submit a letter to the City of Malibu verifying that construction limits have been flagged in the field. No earth-moving equipment will be allowed outside of the construction boundary.

Impact 5.3-3

BIO-5 **RWQCB and CDFW Jurisdiction Areas:** Upon completion of construction activities, impacts to approximately 0.033 acre of non-wetland RWQCB and CDFW jurisdictional waters will be mitigated within the Proposed Project boundaries through the creation of 0.033 acre of non-wetland jurisdictional waters. Acquisition of a § 1602 "lake or streambed alteration" agreement from the CDFW and waste discharge requirements from the RWQCB would be required.

Prior to the final submittal of a Report of Waste Discharge from the RWQCB, and/or CDFW notification of lake or streambed alteration, the District will develop a mitigation plan for the RWQCB, CDFW, and City of Malibu. The objective of the mitigation is to ensure no net loss of habitat values as a result of the Proposed Project. The detailed restoration program shall contain the following items:

- *Responsibilities and qualifications of the personnel to implement and supervise the plan.* The responsibilities of the landowner, specialists and maintenance personnel that would supervise and implement the plan will be specified.

- *Site selection.* The site(s) for the mitigation will be determined in coordination with the Project Applicant and resource agencies. The site will be located in a dedicated open space area and will be contiguous with other natural open space.

- *Site preparation and planting implementation.* The site preparation will include the following: 1) protection of existing native species, 2) trash and weed removal, 3) native species salvage and reuse (i.e., duff), 4) soil treatments (i.e., imprinting, decompacting), 5) temporary irrigation installation, 6) erosion control measures (i.e., rice or willow wattles), 7) native seed mix application, and 8) native container species.

- *Schedule. A* schedule will be developed which includes planting to occur in late fall and early winter, between October 1 and January 30.

- *Maintenance plan/guidelines.* The maintenance plan will include the following: 1) weed control, 2) herbivory control, 3) trash removal, 4) irrigation system maintenance, 5) maintenance training, and 6) replacement planting.

- *Monitoring Plan.* The monitoring plan will include the following: 1) qualitative monitoring (i.e., photographs and general observations), 2) quantitative monitoring (i.e., randomly placed transects), 3) performance criteria as approved

by the resource agencies, 4) monthly reports for the first year and bimonthly reports thereafter, and 5) annual reports which will be submitted to the resource agencies for three to five years. The site will be monitored and maintained for five years to ensure successful establishment of riparian habitat within the restored and created areas; however, if there is successful coverage prior to five years, the District may request from RWQCB and CDFW to be released from monitoring requirements.

- *Long-Term Preservation.* Long-term preservation of the site will be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development.

- Performance standards will be identified and will apply for the restoration of riparian habitat. Revegetation will be considered successful at three years if the percent cover and species diversity of the restored and/or created habitat areas are similar to percent cover and species diversity of adjacent existing habitats, as determined by quantitative testing of existing and restored and/or created habitat areas.

Impact 5.3-5 and 5.3-6

BIO-6 **Adherence to City of Malibu Tree Protection Ordinance:** Prior to initiation of Proposed Project activities in each Phase of the Proposed Project, the tree survey map created for the Proposed Project (Appendix C) shall be consulted and if impacts to any protected trees are anticipated, the Proposed Project shall comply with mitigation included in the Malibu Local Coastal Program Native Tree Protection Ordinance.

5.3.5 Level of Significance After Mitigation

The mitigation measures would reduce potential impacts to biological resources to a level that is less than significant. No significant unavoidable adverse impacts to biological resources have been identified.

5.3.6 Cumulative Impacts

Implementation of Proposed Project, inclusive of the mitigation measures, would result in a negligible impact on biological resources of the region. The Project Site largely occurs in developed/ornamental habitat of low biological value and other projects in the area are expected to have similar results due to limited development of undeveloped lands. With mitigation implementation, the biological effects of the Proposed Project and other proposed projects of the region are expected to be relatively minor and would be considered cumulatively less than significant.

5.3.7 References

City of Malibu, 2021a, Council Agenda Report - Local Coastal Program Amendment Pertaining to Citywide Prohibition of Pesticides, https://www.malibucity.org/AgendaCenter/ViewFile/Item/5024?fileID=21902, accessed September 17, 2021.

City of Malibu, 2021bb, Local Coastal Program, https://www.malibucity.org/372/Local-Coastal-Program, accessed on September 10, 2021.

City of Malibu, 2021cc, Code of Ordinances, https://www.malibucity.org/FAQ.aspx?QID=65, accessed September 10, 2021.

5.4 CULTURAL RESOURCES

Cultural resources comprise archaeological and historical resources. A cultural resource is defined as any object or specific location of past human activity, occupation, or use, identifiable through historical documentation, inventory, or oral evidence. Cultural resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. Cultural resources can be separated into three categories: archaeological, built environment, and traditional cultural resources.

Archaeology studies human artifacts, such as places, objects, and settlements that reflect group or individual religious, cultural, or everyday activities. Archaeological resources include both historic and prehistoric remains of human activity. Historic-period resources include historic structures, structural ruins (such as foundation remnants), sites (such as artifact reuse deposits and artifact-filled features), objects, or places that are at least 50 years old and are significant for their engineering, architecture, cultural use, or association. In California, historic resources cover human activities over the past 12,000 years. Prehistoric resources can include lithic artifact or ceramic scatters, quarries, habitation sites, temporary camps/rock rings, ceremonial sites, and monuments, canals, historic roads and trails, bridges, and ditches and objects.

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Malibu Middle and High School Campus Specific Plan Project (Proposed Project) to impact cultural resources. Impacts to paleontological resources are addressed in Section 5.5, *Geology and Soils*. Tribal cultural resources are addressed in the Initial Study/Notice of Preparation (IS/NOP), which can be found in Appendix B to this DEIR.

The analysis in this section is based in part on the following technical report:

- *Cultural Resources Inventory and Architectural Evaluation Report for the Santa Monica-Malibu Unified School District Malibu Middle and High School Campus Master Plan*, ECORP Consulting, Inc., July 2021

A complete copy of this technical report is provided in Appendix F of this DEIR.

One comment from the City of Malibu regarding the requirement to prepare a Phase I archaeological survey was received regarding cultural resources in response to the IS/NOP circulated for the Proposed Project. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.4.1 Environmental Setting

5.4.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to cultural resources that are applicable to the Proposed Project are summarized below.

5. Environmental Analysis
CULTURAL RESOURCES

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) coordinates public and private efforts to identify, evaluate, and protect the nation's historic and archaeological resources. The act authorized the National Register of Historic Places, which lists districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

Section 106 (Protection of Historic Properties) of the NHPA requires federal agencies to consider the effects of their undertakings on historic properties. Section 106 review ensures that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process with assistance from state historic preservation offices.

National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation's official list of buildings, structures, objects, sites, and districts worthy of preservation because of their significance in American history, architecture, archaeology, engineering, and culture. The NRHP recognizes resources of local, state, and national significance that have been documented and evaluated according to uniform standards and criteria.

Authorized under the NHPA, the NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archaeological resources. The NHRP is administered by the National Park Service, which is part of the U.S. Department of the Interior.

To be eligible for listing in the NRHP, a resource must meet at least one of the following criteria:

A. Is associated with events that have made a significant contribution to the broad patterns of our history

B. Is associated with the lives of persons significant in our past

C. Embodies the 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 and distinguishable entity whose components may lack individual distinction

D. Has yielded, or may be likely to yield, information important in history or prehistory

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 (United States Code, Title 16, §§ 470aa et seq.) regulates the protection of archaeological resources and sites on federal and Native American lands.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act is a federal law passed in 1990 that mandates museums and federal agencies to return certain Native American cultural items—such as human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants or culturally affiliated Native American tribes.

State

California Public Resources Code

Archaeological and historical sites are protected under a wide variety of state policies and regulations in the California Public Resources Code (PRC). In addition, cultural resources are recognized as nonrenewable resources and receive protection under the PRC and the California Environmental Quality Act (CEQA).

PRC §§ 5020 to 5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for designating State Historical Landmarks and Historical Points of Interest.

PRC §§ 5079 to 5079.65 define the functions and duties of the Office of Historic Preservation (OHP), which administers federal- and state-mandated historic preservation programs in California as well as the California Heritage Fund.

PRC §§ 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites, identify the powers and duties of the Native American Heritage Commission (NAHC), require that descendants be notified when Native American human remains are discovered, and provide for treatment and disposition of human remains and associated grave goods.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is a listing of all properties considered to be significant historical resources in the state. The CRHR includes all properties listed or determined eligible for listing on the NRHP, including properties evaluated under section 106, and State Historical Landmarks number No. 770 and above. The CRHR statute specifically provides that historical resources listed, determined eligible for listing on the CRHR by the State Historical Resources Commission (Commission), or resources that meet the CRHR criteria are resources that must be given consideration under CEQA (see above). Other resources, such as resources listed on local registers of historic registers or in local surveys, may be listed if they are determined by the Commission to be significant in accordance with criteria and procedures to be adopted by the Commission and are nominated; their listing in the CRHR is not automatic.

Resources eligible for listing include buildings, sites, structures, objects, or historic districts that retain historical integrity and are historically significant at the local, state, or national level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

2. It is associated with the lives of persons important to local, California, or national history;

3. It 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; or

4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance.

Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR, if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.

Assembly Bill 52

The Native American Historic Resource Protection Act (AB 52) took effect July 1, 2015, and incorporates tribal consultation and analysis of impacts to tribal cultural resources (TCR) into the CEQA process. It requires TCRs to be analyzed like any other CEQA topic and establishes a consultation process for lead agencies and California tribes. Projects that require a Notice of Preparation of an EIR or Notice of Intent to adopt an ND or MND are subject to AB 52. A significant impact on a TCR is considered a significant environmental impact and requires feasible mitigation measures.

TCRs must have certain characteristics:

1) Sites, features, places, cultural landscapes (must be geographically defined), sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources. (PRC § 21074(a)(1))

2) The lead agency, supported by substantial evidence, chooses to treat the resource as a TCR. (PRC § 21074(a)(2))

The first category requires that the TCR qualify as a historical resource according to PRC § 5024.1. The second category gives the lead agency discretion to qualify that resource—under the conditions that it support its

determination with substantial evidence and consider the resource's significance to a California tribe. The following is a brief outline of the process in PRC §§ 21080.3.1 to 3.3.

1. A California Native American tribe asks agencies in the geographic area with which it is traditionally and culturally affiliated to be notified about projects. Tribes must ask in writing.

2. Within 14 days of deciding to undertake a project or determining that a project application is complete, the lead agency must provide formal written notification to all tribes who have requested it.

3. A tribe must respond within 30 days of receiving the notification if it wishes to engage in consultation.

4. The lead agency must initiate consultation within 30 days of receiving the request from the tribe.

5. Consultation concludes when both parties have agreed on measures to mitigate or avoid a significant effect to a TCR, OR a party, after a reasonable effort in good faith, decides that mutual agreement cannot be reached.

6. Regardless of the outcome of consultation, the CEQA document must disclose significant impacts on TCRs and discuss feasible alternatives or mitigation that avoid or lessen the impact.

Native American Historic Resource Protection Act

PRC §§ 5097 et seq. codify the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal public lands. California Public Resources Code § 5097.9 states that no public agency or private party on public property shall "interfere with the free expression or exercise of Native American Religion." The code further states that:

> No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine… except on a clear and convincing showing that the public interest and necessity so require. County and city lands are exempt from this provision, expect for parklands larger than 100 acres.

Human Remains

California Health and Safety Code § 7050.5 requires that if human remains are discovered in the project site, disturbance of the site shall halt and remain halted until the coroner has investigated the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and recognizes or has reason to believe the human remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

The CCA requires that its goals and policies be implemented by local government through the LCP process. Because Malibu lies entirely within the state-designated Coastal Zone, the City of Malibu's LCP is the primary document that guides future development within the city and makes recommendations for the preservation of resources. Chapter 11 of the LIP of the City's LCP contains provisions intended to avoid damage to or destruction of important cultural resources within the city of Malibu. An important cultural resource as defined by the City's LIP may include, but is not limited to, any of the following criteria:

1. Has a special quality such as oldest, best example, largest, or last surviving example of its kind.
2. Is at least 100 years old.
3. Is significant to Chumash prehistory or history.
4. Contains burial or other significant artifacts.
5. Is an archaeologically undisturbed site.
6. Has important archaeological significance.
7. Relates to significant events or persons.
8. Is listed on Cultural Resources Sensitivity Map.
9. Is of specific local importance.
10. Contains traditional sacred ground (including traditional ceremonial material gathering site).
11. Contains burials.
12. Contains sacred and/or significant artifacts.

Local Coastal Program's Land Use Plan

The LUP identifies the following policies related to cultural resources (City of Malibu 2002b):

- **Policy 5.60:** New development shall protect and preserve archeological, historical, and paleontological resources from destruction, and shall avoid and minimize impacts to such resources.

- **Policy 5.61:** Where development would adversely impact archeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

- **Policy 5.63:** Coastal Development Permits for new development within archeologically sensitive areas shall be conditioned upon the implementation of the appropriate mitigation measures.

- **Policy 5.64:** New development on sites identified as archeologically sensitive shall include on-site monitoring of all grading, excavation and site preparation that involve earth-moving operations by a qualified archeologist(s) and appropriate Native American consultant(s).

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 3. Conservation Element

The Conservation Element serves as a guide for the conservation, protection, restoration and management, development, and appropriate and responsible use of the city's existing natural resources. The following objective, policies, and implantation measures in the Conservation Element are relevant to the Proposed Project.

- **CON Objective 2.1:** Historic, cultural, and archaeological resources preserved for future generations and scientific study.

  - **CON Policy 2.1.1:** The City shall identify, designate, protect, and preserve areas, sites, or structures of historic, cultural, paleontological and/or archeological significance.

  - **CON Policy 2.1.2:** The City shall avoid the destruction or alteration of cultural resources.

  - **CON Policy 2.1.3:** The City shall provide incentives to property owners of historical structures to encourage preservation of designated cultural resources.

  To implement these policies the City shall:

  - **Implementation Measure 78:** Review all applications for development to determine whether the development may have an adverse impact on cultural resources.

  - **Implementation Measure 79:** Require site surveys to be performed by qualified technical personnel for projects located in areas identified as archeologically/paleontologically sensitive. Data derived from such surveys shall be used to formulate mitigation measures for the project and all such feasible mitigation measures shall be applied to the project. City of Malibu Local Coastal Program

Santa Monica/Malibu Unified School District Board Policy and Administrative Regulation 7113

The District adopted "Board Policy 7113: FACILITIES: Historical Resources" on February 9, 2021, for the purpose of outlining objectives and establishing procedures for the treatment of historical resources on District campuses. SMMUSD developed this policy to identify and clarify treatment of historical resources on properties under SMMUSD jurisdiction. SMMUSD owns and operates multiple school campuses/properties, which together contain over 100 individual buildings, some of which date from the mid-20th century or earlier. Some of these buildings might be or contain elements that potentially have historical significance. SMMUSD

understands that historical resources should be identified in advance of approval of campus rehabilitation and construction to retain and/or commemorate their significance for future generations when feasible and consistent with educational priorities. In addition to Board Policy 7113, the District has also prepared Administrative Regulation 7113, which establishes procedures for the retention of qualified historical resources consultants to survey each campus prior to approval of a master plan or design of a school facilities project to identify any historical resources on the campuses.

5.4.1.2 EXISTING CONDITIONS

The Project Site is in the Zuma Beach area in the Malibu Park portion of the city of Malibu. The 80-acre District-owned property comprises the existing Malibu Equestrian Park, the existing Malibu Middle and High School (MMHS) campus, and the former Juan Cabrillo Elementary School (JCES) campus. The combined former JCES and MMHS campus contains a total of approximately 203,734 square feet of developed structures as well as student areas, athletic fields, and parking areas. The Project Site where Project components would occur consists of 52.03 acres of the total 87 acres of District-owned property. Culturally, the Project Site lies within Township 1 North, Range 19 West, San Bernardino Base and Meridian and on the United States Geological Survey (USGS) 7.5-minute 1995 Point Dume topographic map. The Proposed Project would include construction within Malibu Equestrian Park and its associated facilities; thus, for the purposes of this cultural resources inventory and architectural evaluation report, the equestrian park is included as part of the Project Site.

Refer to Section 4.3.1.2, *Existing Land Use*, of Chapter 4, *Environmental Setting*, for a detailed description of existing land uses in the Project Site.

Geologic Setting

According to the U.S. Department of Agriculture's (USDA) Web Soil Survey website, there are two soil types present in the Project Site: the Cropley, coastal-Urban land-Haploxererts complex (433), 0 to 30 percent slopes, and Cropley, coastal-Xerorthents, landscaped-Urban land complex (434), 0 to 9 percent slopes. Sediments in the area primarily consists of the Holocene and Pleistocene beach sand, gravel, and alluvial sand, gravel, and clay from floodplains, old dune sand, and older alluvium on terraces. Sediments also include older Miocene Monterey Formation siliceous shale.

Cultural Setting

Prehistory and Ethnohistory

The Project Site is located in the region occupied by the Chumash. The prehistory of the Chumash can be divided into three periods: Early (8,000 to 3,350 years before present [BP]), Middle (3,350 to 800 years BP), and Late (800 to 150 years BP or approximately AD 1150 to 1800). The Early Period is characterized by the use of large flake and core tools, milling stones, and hand stones while the Middle Period is characterized by the increased emphasis on marine substances. The Chumash fully developed during the Late Period with a series of permanent and semi-permanent villages with populations of 200 to 600 or more individuals along the Santa Barbara Channel and on the Channel Islands.

Artifactual and skeletal evidence indicate that the Chumash have continuously occupied the Ventura and Santa Barbara County areas from prior to 10,000 years BP to historic times. When the Spanish arrived in AD 1769, the Chumash occupied the coast from Malibu Canyon to San Luis Obispo and inland as far as the western edge of the San Joaquin Valley. Exposure to diseases introduced by Europeans led to the decimation of their population. In 1855, a reservation of 120 acres was given to the Chumash near the Santa Ynez Mission. The parcel was eventually reduced to 75 acres, the smallest Native American reservation in California. By the 1970s, only about 40 Chumash of mixed blood remained there, while other Chumash with no formal tribal affiliation live outside the reservation.

Local History

In 1793, the Point Dume area of Malibu, a sacred site for the Chumash people, was given the name Point Dume by English Explorer George Culver. The area remained largely unoccupied until World War II in the early 1940s. During World War II, Point Dume was used as a lookout and artillery training center to defend against the Japanese. During the late 1940s to the 1960s, Point Dume and the surrounding area began to experience rapid development. Residents of Malibu, who wanted to maintain the rural setting of the area, started to push for a halt in development in the 1970s to 1980s. In 1991, the City of Malibu was incorporated. A 34-acre State Park was established in 1979, which eventually became the Point Dume State Beach and Preserve in 1992.

Campus History

Open in 1955, JCES is the second elementary school in the city of Malibu. JCES is an example of the Minimalist Modern style of architecture. In 1963, the school was divided for the Malibu Park Junior High. The school was built to relieve overcrowding at the Lincoln Junior High School in Santa Monica. The Malibu Park Junior High was completed in 1968 and is an example of Modern Style architecture. In 1992, the junior high school was converted into a high school, which allowed students in Malibu to attend high school in the area instead of Santa Monica High School. In 2019, JCES closed permanently, and the buildings have been used by the MMHS students and staff.

Cultural Resources

ECORP Consulting (ECORP) prepared a Cultural Resources Inventory and Architectural Evaluation for the Project Site (Appendix F) to identify historical and archaeological resources and analyze any potentially significant adverse effects to these resources as a result of implementation of the Proposed Project. Preparation of the report included records searches, site inspections, intensive-level surveys, background research, and Native American coordination. Following is a discussion of the cultural resource findings of the assessment report.

Records Search Results

ECORP conducted a resources records search of the California Historic Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) in January 2020. The purpose of the records search was to determine the extent and location of previous surveys, previously identified prehistoric or historic

archaeological site locations, architectural resources, historic properties, cultural landscapes, or ethnic resources within a one-mile radius of the Project Site.

The results of the CHRIS records search indicated that 239 previous cultural resource investigations have been conducted within one mile of the Project Site. Of the 239 previous investigations, 5 were located within the Project Site, as shown in Table 5.4-1, *Previous Cultural Studies Within the Project Site*.

Table 5.4-1 Previous Cultural Studies Within the Project Site

Report No. (LA)	Author(s)	Title	Year
LA-01091	Dillon, Brian D.	An Archaeological Resource Survey and Impact Assessment of Tentative Minor Land Division, Map #14294, on Morning View Dr., Malibu, Los Angeles County, California	1981
LA-01103	Singer, Clay A.	Archaeological Reconnaissance of Proposed Malibu Little League Baseball Fields Site (n.a.r.c.) Project No. Vs-585	1981
LA-01859	Singer, Clay A., and John E. Atwood	Cultural Resources Survey and Impact Assessment for 5.4 Acres Next to Morning View Drive in Malibu (tpm 21393) Los Angeles County, California	1989
LA-04622	Wlodarski, Robert J.	A Phase I Archaeological Study for the Proposed Improvements to Malibu High School, City of Malibu, County of Los Angeles, California	1999
LA-11508	Jurich, Denise, Martinez, Jesse, and Sanka, Jennifer	Final Draft, Archaeological Phase I Inventory Report for the Malibu Middle and High School Campus Improvements Project	2009

Source: ECORP 2021

The CHRIS records search also indicated that 27 previously recorded pre-contact and historic-era cultural resources are located within one mile of the Project Site, as shown in Table 5.4-2, *Previously Recorded Cultural Resources Within a One-Mile Radius of the Project Site*. Of these resources, 26 are believed to be associated with Native American occupation of the region, and 1 is a historic-era site associated with early settlers in the area. No cultural resources were identified within the Project Site as a result of the SCCIC records search. The records search also revealed that the buildings associated with the two school campuses are not within a known historic district.

Table 5.4-2 Previously Recorded Cultural Resources Within a One-Mile Radius of the Project Site

Site Number (CA-LAN)	Primary (P-19)	Recorder and Year	Age/Period	Site Description
CA-LAN-40	P-19-000040	Mohr 1947; Beck 1948; S. L. Peck 1953; Jay Ruby 1961	Pre-contact	Occupational Site
CA-LAN-196	P-19-000196	S. L. Peck 1953 (1948)	Pre-contact	Fire Affected Rock
CA-LAN-197	P-19-000197	John M. Beaton 1968	Pre-contact	Middle Period Cemetery: Habitation Site, midden (destroyed by development)
CA-LAN-198	P-19-000198	Hal Eberhart 1953	Pre-contact	Scatter of Artifacts
CA-LAN-199	P-19-000199	C. W. Meighan & H. Eberhart 1952	Pre-contact	Shell Midden & Fire Affected Rock
CA-LAN-200	P-19-000200	Hal Eberhart 1953	Pre-contact	Manos (destroyed)

Table 5.4-2 Previously Recorded Cultural Resources Within a One-Mile Radius of the Project Site

Site Number (CA-LAN)	Primary (P-19)	Recorder and Year	Age/Period	Site Description
CA-LAN-201	P-19-000201	S. L. Peck 1951 & Hal Eberhart 195	Pre-contact	Burials, Midden, Habitation Site (destroyed)
CA-LAN-292	P-19-000292	N. Nelson Leonard 1963; Robert J. Wlodarski & Dan A. Larson 1998	Pre-contact	Seasonal Camp & Burials (Intact below surface)
CA-LAN-335	P-19-000335	C. Singer 1965	Pre-contact	Lithics, Ground Stone & Fire Affected Rock
CA-LAN-451	P-19-000451	Bell, Evans, Coleman Jones, Leonard 1972	Pre-contact	Habitation Site
CA-LAN-513	P-19-000513	Decker 1972 & Singer 1982	Pre-contact	Lithics & Ground Stone
CA-LAN-1012	P-19-001012	Clay A. Singer 1979	Pre-contact	Lithic Scatter (destroyed)
CA-LAN-1065	P-19-001065	Rosen, Hector, Dillion & Beroza 1980	Pre-contact	Lithics, Ground Stone & Fire Affected Rock
CA-LAN-1121	P-19-001121	C. C. Martinez & C. A. Singer	Pre-contact	Lithics & Ground Stone
CA-LAN-2143	P-19-002143	Chester King 1993	Pre-contact	Lithics & Ground Stone
CA-LAN-2153H	P-19-002153	Chester King 1993	Historic-era	Water system with dam
CA-LAN-2162	P-19-002162	Dana E. Bleitz & Brad Yocum 1991; Chester King 1993	Pre-contact	Chumash Trail, Shell Midden & Lithic Scatter
CA-LAN-2164	P-19-002164	Dana E. Bleitz & Brad Yocum 1991	Pre-contact	Lithics, Ground Stone, Milling & Fire Affected Rock Rings
CA-LAN-2381	P-19-002381	Dana E. Bleitz & Brad Yocum 1991	Pre-contact	Lithic Scatter
CA-LAN-2382	P-19-002382	Dana E. Bleitz & Brad Yocum 1991	Pre-contact	Lithic Quarry
CA-LAN-2383	P-19-002383	Dana E. Bleitz & Brad Yocum 1991	Pre-contact	Lithics & Ground Stone
CA-LAN-2384	P-19-002384	Dana E. Bleitz & Brad Yocum 1991	Pre-contact	Lithics & Ground Stone
CA-L-IF-40	P-19-100040	Chester King 1993	Unknown	Isolate – Mussel Shell
Isolate	P-19-100108	Dana E. Bleitz & Brad Yocum 1991	Pre-contact	One Quartzite Scraper
Isolate	P-19-100109	Dana E. Bleitz & Brad Yocum 1991	Pre-contact	Chert Core
Isolate	P-19-100110	Dana E. Bleitz & Brad Yocum 1991	Pre-contact	Core & Flake
Isolate	P-100118	Bonnie MacDougall 1996	Pre-contact	Mano

Source: ECORP 2021

Other Sources Search Results

In addition to the SCCIC records search, a variety of sources were consulted to obtain information regarding the cultural context of the Project Site. Sources included listings of the NRHP, CRHR, California Points of Historical Interest, California Historical Landmarks, National Historic Landmarks, Los Angeles Conservancy, and Los Angeles Historic Resources Inventory. The Project Site was not listed in any of these sources. Historic-period aerial photographs and maps were also reviewed as a part of the study.

Sacred Lands Files Search Results

ECORP submitted a Sacred Lands File (SLF) request to NAHC on February 6, 2020. This search was requested to determine whether there are sensitive or sacred Native American resources in the vicinity of the Project Site

that could be affected by the Proposed Project. The NAHC responded on February 25, 2020, with a negative SLF search, indicating no record for the presence of Native American sacred land within the Project Site. NAHC, did however, note that the absence of specific site information in the SLF does not indicate the absence of Native American cultural resources in the Project Site.

Pedestrian Survey Results

A pedestrian survey was conducted by ECORP staff on March 31, 2020, in all undeveloped portions of the Project Site, under the guidance of the Secretary of the Interior's Standards for the Identification of Historic Properties using transects spaced 15 meters apart. The ground surface was examined for indications of surface or subsurface cultural resources, and the general morphological characteristics of the ground surface were inspected for indications of subsurface deposits that may be manifested in the surface, such as circular depressions or ditches. The locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances were examined for artifacts or for indications of buried deposits. On July 15, 2021, a follow-up survey of the proposed Bus Barn location in the Malibu Equestrian Park was also surveyed.

Developed areas of the school campuses were not subjected to pedestrian survey as these areas do not contain exposed native ground surfaces. These developed areas consist of classroom buildings, parking areas, blacktop areas, planters, landscaped areas, and athletic fields. Disturbances noted consist of past agricultural activity, weed abatement with heavy machinery, modern dumping, and bioturbation (animal burrowing). No pre-contact or historic-period sites or isolated finds were identified.

Built Environmental Cultural Resources

On March 25, 2020, a historic built environments survey of the MMHS and former JCES campuses was conducted by ECORP. There are a total of six historic-period buildings (older than 50 years of age) and at least seven modern buildings and structures located on the MMHS campus (built later than 1970), as shown in Table 5.4-3, *Built Environmental Cultural Resources Within the Project Site*. Additionally, there are seven historic-period buildings and four modern buildings and structures located on the JCES campus.

Table 5.4-3 Built Environmental Cultural Resources Within the Project Site

Building	Date Constructed and Notes	Architect
MMHS Campus		
Building A	1970s; Demolished and new building completed	Unknown
Building B & C	1970s; Demolished and new building completed	Unknown
Building D[1]	Between 1967 and 1975	Unknown
Building E[2]	1963; Original building has been demolished and new building constructed in 2018	Unknown
Building F[1]	1963, additions by 1975	Orr, Strange, Inslee, and Senefeld
Building G[1]	1963	Orr, Strange, Inslee, and Senefeld
Building H and Kitchen[1]	1963	Orr, Strange, Inslee, and Senefeld
Gymnasium[1]	Between 1967 and 1975	Unknown
New Gymnasium[2]	Modern: 2000	Unknown
Amphitheater[2]	1978	Unknown

Table 5.4-3 Built Environmental Cultural Resources Within the Project Site

Building	Date Constructed and Notes	Architect
500 Building[1]	Between 1967 and 1975	Unknown
600 Building[2]	Modern: 2002	Unknown
511 portable classroom[2]	Modern: 2000	Unknown
512 portable classroom[2]	Modern: 2000	Unknown
513 portable classroom[2]	Modern: 2000	Unknown
JCES Campus		
Main Office[1]	1955	Unknown
Front Building[1]	1955	Unknown
Cottage A/B[2]	Modern: Early 1990s	Unknown
Library[1]	1963	Unknown
Hall[2]	Modern: Early 1990s	Unknown
Building 100[1]	1955	Unknown
Building 150[1]	1955	Unknown
Building 20[1]	1963	Unknown
Garages[1]	1963 and 1975	Unknown
Portable Classrooms	Modern: Early 2000s	Unknown

Source: ECORP 2021
[1] Historic-period building (older than 50 years of age)
[2] Modern Building/Structure (built later than 1970)

Tribal Consultation

In accordance with Public Resources Code § 21080.3.1(d), a lead agency is required to provide formal notification of intended development projects to Native American tribes that have requested to be on the lead agency's list for receiving such notification. The formal notification is required to include a brief description of the Proposed Project and its location, lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation for tribal cultural resources.

The Santa Ynez Band of Chumash Indians, Gabrielino/Tongva San Gabriel Band of Mission Indians, and the Torres Martinez Desert Cahuilla Indians are on the SMMUSD's notification list pursuant to AB 52. The District provided notification letters to these tribes on May 15, 2020, and received no response within the 30-day time period (see Appendix B for more information).

5.4.2 Thresholds of Significance

CEQA Guidelines § 15064.5 provides direction on determining significance of impacts to archaeological and historical resources. Generally, a resource shall be considered "historically significant" if the resource meets the criteria for listing on the CRHR:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with lives of persons important in our past;

- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history. (PRC § 5024.1; 14 California Code of Resources [CCR] § 4852)

The fact that a resource is not listed in the CRHR, not determined to be eligible for listing, or not included in a local register of historical resources does not preclude a lead agency from determining that it may be a historical resource.

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

C-1 Cause a substantial adverse change in the significance of a historical resource pursuant to section 15064.5.

C-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5.

C-3 Disturb any human remains, including those interred outside of dedicated cemeteries.

The IS/NOP, included as Appendix B to this DEIR, substantiates that impacts associated with the following thresholds would be less than significant; therefore, this impact will not be further addressed in this DEIR:

- Threshold C-3

5.4.3 Environmental Impacts

5.4.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.4-1: There are no historical resources in the Project Site; development pursuant to the Proposed Project would not result in an impact on identified historic resources. [Threshold C-1]

Under CEQA, a project has a significant impact on a historical resource if it "would result in the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines § 15064.5(b)(1)). Material impairment would occur if the project would result in demolition or material alteration of those physical characteristics that convey the resource's historical significance (CEQA Guidelines § 15064.5(b)(2)).

As concluded in the *Records Search Results* discussion of Section 5.4.1.2, *Existing Conditions*, there are currently no locally, state-, or federally designated historic resources in the Project Site. Additionally, the Project Site was not listed in any of the following state or federal resources: NRHP, CRHR, California Points of Historical

Interest, California Historical Landmarks, National Historic Landmarks, Los Angeles Conservancy, and Los Angeles Historic Resources Inventory.

However, there are historic-period buildings located within both MMHS and former JCES Campuses, as shown in Table 5.4-3. Therefore, all historic-era buildings within the Project Site were evaluated, both as individual resources and as a historic complex, using CRHR eligibility criteria. As substantiated in the Cultural Resources Inventory and Architectural Evaluation (Appendix F), due to lack of associated significance, none of the historic buildings and structures within the Project Site are recommended as eligible for listing at the local, state, or national level and are not considered historically significant. The buildings are not associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States and, therefore, not recommended as eligible for listing under Criterion 1. They are not associated with the lives of persons important to local, California, or national history and, therefore, not recommended as eligible for listing under Criterion 2. They do not embody the distinctive characteristics of a type, period, region, or method of construction or represent the work of a master or possess high artistic values and therefore, not recommended as eligible for listing under Criterion 3. Lastly, they have not yielded, nor have the potential to yield, information important to the prehistory or history of the local area, California, or the nation and therefore are not recommended as eligible for listing under Criterion 4. Accordingly, impacts to historic resources as a result of implementation the Proposed Project, including demolition and removal of structures, are considered **less than significant**.

Impact 5.4-2: Development of the Proposed Project could result in an impact on archaeological resources. [Threshold C-2]

As discussed previously, no archaeological resources were identified during the pedestrian survey. However, the soils underlying the Project Site (Pleistocene and Holocene alluvial sediments) and the records search results indicate that there are buried pre-contact resources near the vicinity of the Project Site. The greater Malibu area is known to have been intensively occupied during the pre-contact period. Records search results indicate that 24 pre-contact era resources and historic-era resources have been recorded within one mile of the Project Site. These pre-contact sites consist of numerous habitation sites and several burial sites. Although the majority of the Project Site has already been subjected to grading activities associated with existing development, due to the factors mentioned previously, the Project Site may still contain buried deposits in undeveloped areas and in sediments that are located beneath the previous level of disturbance. Construction of the Proposed Project would involve ground disturbance, earthwork, and excavation across the majority of the 52-acre Project Site. Therefore, there is a moderate to high potential for buried pre-contact resources to be uncovered during ground-disturbing activities, and impacts are considered **potentially significant**. Mitigation Measure CUL-1 requires a Qualified Archaeologist to conduct sensitivity training in advance of ground-disturbing activities for each phase and be retained and available during ground disturbance. It also provides measures to be taken in the event cultural resources are inadvertently discovered during construction.

5.4.4 Mitigation Measures

Impact 5.4-2

CUL-1 Prior to issuance of any permits allowing ground-disturbing activities for the Proposed Project (for each individual phase of the Project), the District shall ensure that an archaeologist who meets the Secretary of the Interior's standards for professional archaeology and a Qualified Paleontologist (or someone cross-trained in both areas) has been retained for the Project and will be on-call during all grading and other significant ground-disturbing activities. The Qualified Archaeologist and Paleontologist shall ensure that the following measures are followed for the Project:

- Prior to any ground disturbance, the Qualified Archaeologist/Paleontologist, or their designee, shall provide worker environmental awareness protection training to construction personnel regarding regulatory requirements for the protection of cultural (prehistoric and historic) and paleontological resources. As part of this training, construction personnel shall be briefed on proper procedures to follow should unanticipated cultural or paleontological resources be made during construction.
- In the event that unanticipated cultural or fossil-bearing material is encountered during any phase of project construction, all construction work within 100 feet of the find shall cease and the Qualified Archaeologist/Paleontologist shall assess the find for importance. Construction activities may continue in other areas. If the discovery is determined to not be important by the Qualified Archaeologist/Paleontologist, work will be permitted to continue in the area.
    - If a find is determined to be important by the Qualified Archaeologist/Paleontologist, he or she shall immediately notify the District. The District shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the California Register of Historical Resources (CRHR). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: (1) is not eligible for the CRHR; or (2) that the treatment measures have been completed to their satisfaction.
    - If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Los Angeles County Medical Examiner-Coroner (as per § 7050.5 of the California Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code (PRC), and AB 2641 will be implemented. If the Medical Examiner-Coroner determines the remains are Native American and not the result of a crime scene, the Medical Examiner-Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the

PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

5.4.5 Level of Significance After Mitigation

Mitigation Measure CUL-1 would reduce potential impacts to cultural resources to a level that is less than significant. Therefore, no significant unavoidable adverse impacts to cultural resources have been identified.

5.4.6 Cumulative Impacts

The area considered for cumulative impacts is the city of Malibu and related projects. Cultural resources impacts are site specific and generally do not combine to result in cumulative impacts. Additionally, under existing applicable law, site-specific cultural resources investigations would be required for other projects before the City would permit ground disturbances or demolition or substantial alteration of existing structures. Such investigations would include some degree of surface-level surveying and identify resources on the affected project sites that are or appear to be eligible for listing on the national or state registers for historic resources. Such investigations would also be required to mitigate impacts (where needed) to reduce impacts and protect and preserve any identified cultural and/or historic resources. As a part of the investigations, a cultural resources records search of the CHRIS and an SLF search would also be required. The Proposed Project includes mitigation measures to ensure proper identification, treatment, and preservation of cultural resources on the Project Site. Therefore, the Proposed Project's contribution to cumulative cultural resource impacts would be less than significant and would not be cumulatively considerable.

5.4.7 References

ECORP Consulting, Inc. July 2021. Cultural Resources Inventory and Architectural Evaluation Report for the Santa Monica-Malibu Unified School District Malibu Middle and High School Campus Master Plan.

5. Environmental Analysis
CULTURAL RESOURCES

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5.5 ENERGY

This section of the Draft Environmental Impact Report (DEIR) evaluates the Malibu Middle and High School (MMHS) Campus Specific Plan Project's (Proposed Project's) anticipated energy needs, impacts, and conservation measures. Information found herein, as well as other aspects of the Proposed Project's energy implications, are discussed in Chapter 3, *Project Description*, and Section 5.2, *Air Quality*, and Section 5.7, *Greenhouse Gas Emissions*. This section relies on the results of an estimation of fuel for construction found in Appendix D, *Air Quality and Greenhouse Emissions Data,* of this DEIR.

No comments were received in response to the Initial Study/Notice of Preparation (IS/NOP) with respect to energy. The IS/NOP and all scoping comment letters are included as Appendices B and C of this DEIR.

5.5.1 Environmental Setting

5.5.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to energy that are applicable to the Proposed Project are summarized in this section.

Federal

Federal Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 was established in response to the 1973 oil crisis. The act created the Strategic Petroleum Reserve, established vehicle fuel economy standards, and prohibited the export of U.S. crude oil (with a few limited exceptions). It also created Corporate Average Fuel Economy (CAFE) standards for passenger cars starting in model year 1978. The CAFE standards are updated periodically to account for changes in vehicle technologies, driver behavior, and/or driving conditions.

The federal government issued new CAFE standards in 2012 for model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon (mpg) for model year 2025. However, on March 30, 2020, the United States Environmental Protection Agency (US EPA) finalized an updated CAFE and greenhouse gas (GHG) emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 through 2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 mpg for model year 2026 vehicles (SAFE 2020). However, per Executive Order 13990 issued by President Biden on January 20, 2021, the US EPA is reconsidering SAFE for the purpose of rescinding the rule. The reconsideration process is ongoing. A planned public hearing occurred on June 2, 2021, which also started the public comment period that ended on July 6, 2021.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving

vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The act sets increased CAFE standards; the renewable fuel standard; appliance energy-efficiency standards; building energy-efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration (US EPA 2019).

State

Warren-Alquist Act

Established in 1974, the Warren-Alquist Act created the California Energy Commission (CEC) in response to the energy crisis of the early 1970s and the state's unsustainable growing demand for energy resources. The CEC's core responsibilities include advancing State energy policy, encouraging energy efficiency, certifying thermal power plants, investing in energy innovation, developing renewable energy, transforming transportation, and preparing for energy emergencies. The Warren-Alquist Act is updated annually to address current energy needs and issues, and its latest edition was in January 2020.

Renewables Portfolio Standard

The California Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill (SB) 1078 and was amended in 2006, 2011, and 2018. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. The California Public Utilities Commission (CPUC) is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the state. Per the 2020 annual report, the three largest retail energy utilities – Pacific Gas and Electric, Southern California Edison, and San Diego Gas & Electric – provided 31, 38, and 39 percent, respectively, of their supplies from renewable energy sources (CPUC 2020). Since 2003, these three-largest utilities have contracted over 21,000 megawatts (MW) of renewable capacity (CPUC 2020).[1] SB 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. SB 100 (de Leon) passed in 2018 puts California on the path to 100-percent fossil-fuel-free electricity by the year 2045 (CEC 2017a).

Senate Bill 350

SB 350 (de Leon) was signed into law September 2015 and established tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

[1] Renewable capacity is defined as the maximum power-generating capacity of power plants that use renewable energy sources to produce electricity.

Senate Bill 100

On September 10, 2018, SB 100 was signed, replacing the SB 350 requirements. Under SB 100, the RPS for publicly owned facilities and retail sellers will consist of 44-percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill established an overall State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100-percent carbon-free electricity target.

Appliance Efficiency Regulations

California's Appliance Efficiency Regulations (California Code of Regulations [CCR] Title 20, Parts 1600–1608) contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California. These standards are updated regularly to allow consideration of new energy-efficiency technologies and methods (CEC 2017b).

Title 24, Part 6, Energy-Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2019 (CCR Title 24, Part 6). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy-efficiency technologies and methods. The 2019 Building Energy-Efficiency Standards, which were adopted on May 9, 2018, went into effect January 1, 2020.

The 2019 standards move toward cutting energy use in new homes by more than 50 percent and require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less (CBSC 2019a). The 2019 standards focus on four key areas: (1) smart residential photovoltaic systems; (2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); (3) residential and nonresidential ventilation requirements; and (4) nonresidential lighting requirements (CEC 2018). Based on a study of the statewide impacts of the 2019 changes to the California Energy Efficiency Standards, the reductions for newly constructed multifamily residential buildings are estimated to be 2 percent for electricity and 5 percent for natural gas compared to the 2016 standards. Newly constructed non-residential buildings are estimated to have a 11 percent reduction for electricity and 1 percent for natural gas (NORESCO 2018).

Title 24, Part 11, Green Building Standards

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards—CALGreen (CCR Title 24, Part 11)—as part of the California Building Standards Code. It includes mandatory requirements for new residential and nonresidential buildings throughout California. CALGreen is

intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the governor. The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2019. The 2019 CALGreen update became effective on January 1, 2020.

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impacts during and after construction. CALGreen has requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency (CBSC 2019b).

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

The LUP identifies the following policies related to air quality (City of Malibu 2002b):

Chapter 4: Hazards and Shoreline/Bluff Development

- **Section 30253.** New development shall:
  4) Minimize energy consumption and vehicle miles traveled.

Malibu Municipal Code

Chapter 15.18, Energy Code Adopted

The purpose of this chapter is to promote the health, safety, and welfare of the city's residents, workers, and visitors by minimizing the use and waste of energy in the construction and operation of the City's building stock. This chapter sets forth minimum energy-efficiency standards within the city for all new residential and nonresidential construction. (Ord. 457 § 16, 2020; Ord. 413U § 13, 2016)

Chapter 17.41, Malibu Dark Sky

The purpose of the Malibu Dark Sky Ordinance is to implement the goals of the General Plan and protect and promote public health, safety, welfare, quality of life, and the ability to view the night sky, by establishing regulations and a process for review of outdoor lighting to accomplish the following:

G. Provide standards for efficient and moderate use of lighting which balance energy use and economic impact;

H. Provide lighting standards that can evolve according to advancements in technology; and

I. Promote lighting practices and systems which conserve energy, decrease dependence on fossil fuels and limit greenhouse gas emissions consistent with the California Global Warming Solutions Act and other applicable state and federal law. (Ord. 434 section 4, 2018)

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 3. Conservation Element

The City of Malibu General Plan's Safety and Health Element creates a cohesive guide consisting of specific policy-oriented implementation measures. The intention is to reduce the potential for loss of life, injuries, damage to property, and social and economic dislocation resulting from major hazards throughout the community. The Conservation Element has the following goals, policies, and objectives related to energy:

CON Goal 3: Energy Conserved

- **CON Objective 3.1:** Use of innovative, energy efficient techniques and systems.
  - **CON Policy 3.1.1:** The City shall educate the community regarding the importance of and techniques for energy conservation.
  - **CON Policy 3.1.2:** The City shall encourage state-of-the-art energy efficiency standards for all new construction design.
  - **CON Policy 3.1.3:** The City shall protect solar access.
  - **CON Policy 3.1.4:** The City shall encourage uses of solar and other nonpolluting, renewable energy sources.

  To implement these policies the City shall:

  - **CON Implementation Measure 90:** Review development codes to assess energy conservation opportunities.

- **CON Implementation Measure 91:** Enforce State "energy budget standards" for new construction which standards establish maximum allowable use from depletable sources.
- **CON Implementation Measure 92:** Offer incentives such as priority processing and reduced permit fees for use of energy saving designs and devices.

5.5.1.2 EXISTING CONDITIONS

Electricity

Electricity is quantified using kilowatts (kW) and kilowatt-hours (kWh). A kW is a measure of 1,000 watts of electrical power and a kWh is a measure of electrical energy equivalent to a power consumption of 1,000 watts for 1 hour. The kWh is commonly used as a billing unit for energy delivered to consumers by electric utilities. According to the CEC's "Tracking Progress" regarding statewide energy demand, total electric energy usage in California was 279,402 gigawatt hours in 2019 (CEC 2021a). A gigawatt is equal to one billion (10^9) watts or 1,000 megawatts (1 megawatt = 1,000 kW).

The electricity supply for the City of Malibu is provided by Southern California Edison (SCE). Total electricity consumption in SCE's service area in gigawatt-hours (GWh) was 105,162 GWh in 2019 (CEC 2021a). Sources of electricity sold by SCE in 2019, the latest year for which data are available, were:

- 35 percent renewable, consisting mostly of solar and wind
- 8 percent large hydroelectric
- 16 percent natural gas
- 8 percent nuclear
- 33 percent unspecified sources, that is, not traceable to specific sources (SCE 2020)

Operation of the existing middle and high school consumes electricity for various purposes, including, but not limited to, heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; security and control center functions; lighting; and use of on-site equipment and appliances. Electricity use data from CalEEMod is based on land use type and land use area. Based on historical[2] electricity consumption default data from CalEEMod 2020.4, the existing MMHS consumed an average of 1,257,552 kWh annually. Existing estimated electricity consumption for the campus is shown in Table 5.5-1, *Existing Campus Electricity Consumption (2021)*.

Table 5.5-1 Existing Campus Electricity Consumption (2021)

Land Use	Electricity (kWh/year)
Elementary School	307,623
Middle School	818,529
Parking Lot	131,400
Total	**1,257,552**

Source: CalEEMod 2020.4. See Appendix D. Based on historical electricity rates in CalEEMod.
kWh = kilowatt-hour

[2] CalEEMod historical energy data is based on 2005 Title 24, Part 6, energy use data.

Natural Gas

Gas is typically quantified using the "therm," which is a unit of heat energy equal to 100,000 British thermal units (BTU) and is the energy equivalent of burning 100 cubic feet of natural gas. The Southern California Gas Company (SoCalGas) provides natural gas to the Project Site. SoCalGas' service area spans much of the southern half of California, from Imperial County on the southeast to San Luis Obispo County on the northwest to part of Fresno County on the north to Riverside County and most of San Bernardino County on the east (CEC 2021b). Total natural gas supplies available to SoCalGas for years 2020 through 2022 are 3.175 billion cubic feet per day. Total natural gas consumption in SoCalGas' service area is forecast to be 2.103 billion cubic feet per day in 2035 (SoCalGas 2020).

Based on historical[3] electricity consumption default data from CalEEMod 2020.4, the existing MMHS generates an estimated average natural gas demand of 2,075,718 kilo–British thermal units (kBTU) per year, as shown in Table 5.5-2, *Existing Campus Natural Gas Consumption (2021)*.

Table 5.5-2 Existing Campus Natural Gas Consumption (2021)

Land Use	Natural Gas (kBTU/year)
Elementary School	567,008
Middle School	1,508,710
Total	**2,075,718**

Source: CalEEMod 2020.4. See Appendix D. Based on historical natural gas consumption rates in CalEEMod.
kBTU = kilo-British thermal unit

5.5.2 Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a Project would normally have a significant effect on the environment if the Project would:

E-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

E-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

5.5.3 Environmental Impacts

5.5.3.1 METHODOLOGY

The impact analysis focuses on the three sources of energy that are relevant to the Proposed Project: electricity and natural gas associated with new development and the short-term fuel consumed during construction of the four Project phases. The analysis of electricity and natural gas usage for the Proposed Project is based on emissions modeling using California Emissions Estimator Model (CalEEMod) Version 2020.4, which quantifies energy use for occupancy. In addition, calculations for construction fuel use are based on vehicle and equipment

[3] CalEEMod historical energy data is based on 2005 Title 24, Part 6, energy use data.

data from EMFAC2017 Version 1.0.3 and OFFROAD2017 Version 1.0.1. The emissions model and construction fuel use calculations may be seen in Appendix D.

5.5.3.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.5-1: The Proposed Project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation. [Threshold E-1]

Short-Term Construction Impacts

During each of the four phases of construction of the Proposed Project, there would be temporary increased demands for electricity and vehicle fuels compared to existing conditions and would result in short-term transportation-related energy use.

Electrical Energy

Construction of the Proposed Project would not require electricity to power most construction equipment. Electricity use during construction would vary during different phases of construction. The majority of construction equipment during demolition and grading would be gas- or diesel-powered, and the later construction phases would require electricity-powered equipment for interior construction and architectural coatings. Overall, the use of electricity would be temporary and would fluctuate according to the phase of construction. Additionally, it is anticipated that the majority of electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities. Therefore, Project-related construction activities would not result in wasteful or unnecessary electricity demands, and impacts would be **less than significant**.

Natural Gas Energy

It is not anticipated that construction equipment used for the Proposed Project would be powered by natural gas, and no natural gas demand is anticipated during construction. Therefore, impacts would be **less than significant** with respect to natural gas usage.

Transportation Energy

Transportation energy use depends on the type and number of trips, vehicle miles traveled (VMT), fuel efficiency of vehicles, and travel mode. Additionally, transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. Energy consumption for each of the four phases of construction was calculated using the CalEEMod (Version 2020.4) computer model and data from the EMFAC2017 (Version 1.0.3) and OFFROAD2017 (Version 1.0.1) databases. The results are shown in Table 5.5-3, *Construction-Related Fuel Usage (Phase 1),* for Phase 1 construction activities, and Table 5.5-4, *Construction-*

Related Fuel Usage per Phase (Phases 2 through 4), for the worst-case Phase 2 through 4 construction activities. Table 5.5-5, *Total Estimated Construction-Related Fuel Usage*, shows the total estimated construction-related fuel use for all phases of construction for the Proposed Project. The calculations in this table assume that worst-case construction vehicle trip data is representative of the construction energy use from Phase 2, Phase 3, as well Phase 4 activities for four total phases of construction.

Table 5.5-3 Construction-Related Fuel Usage (Phase 1)

	Gas		Diesel		Electricity	
Project Component	**VMT**	**Gallons**	**VMT**	**Gallons**	**VMT**	**kWh**
Construction Worker Commute	701,099	24,409	5,019	113	12,220	3,977
Construction Vendor Trips	8,806	1,720	100,456	11,933	0	0
Construction Truck Haul Trips	96	23	112,126	17,008	0	0
Construction Off-Road Equipment	N/A	17,258	N/A	54,441	N/A	0
Total	**710,001**	**43,411**	**217,600**	**83,495**	**12,220**	**3,977**

Source: CalEEMod Version 2020.4; EMFAC2017 Version 1.0.3; OFFROAD2017 Version 1.0.1.
Notes: VMT = vehicle miles traveled; kWh = kilowatt hour

Table 5.5-4 Construction-Related Fuel Usage per Phase (Phases 2 through 4)

	Gas		Diesel		Electricity	
Project Component	**VMT**	**Gallons**	**VMT**	**Gallons**	**VMT**	**kWh**
Construction Worker Commute	772,574	25,709	5,742	125	17,591	5,643
Construction Vendor Trips	11,681	2,213	137,812	15,853	0	0
Construction Truck Haul Trips	85	20	98,126	13,813	0	0
Construction Off-Road Equipment	N/A	16,605	N/A	52,555	N/A	0
Total	**784,340**	**44,546**	**241,681**	**82,347**	**17,591**	**5,643**

Source: CalEEMod Version 2020.4; EMFAC2017 Version 1.0.3; OFFROAD2017 Version 1.0.1.
Notes: VMT = vehicle miles traveled; kWh = kilowatt hour

Table 5.5-5 Total Estimated Construction-Related Fuel Usage

	Gas		Diesel		Electricity	
Project Component	**VMT**	**Gallons**	**VMT**	**Gallons**	**VMT**	**kWh**
Construction Worker Commute	3,791,396	127,245	27,988	612	82,583	26,549
Construction Vendor Trips	55,528	10,570	651,705	75,346	0	0
Construction Truck Haul Trips	436	102	504,632	72,262	0	0
Construction Off-Road Equipment	N/A	83,676	N/A	264,661	N/A	0
Total[1]	**3,847,360**	**221,595**	**1,184,325**	**412,881**	**82,583**	**26,549**

Source: CalEEMod Version 2020.4; EMFAC2017 Version 1.0.3; OFFROAD2017 Version 1.0.1.
Notes: VMT = vehicle miles traveled; kWh = kilowatt hour
[1] The total estimated fuel use was obtained by multiplying the worst-case fuel use in Table 5.5-4 by four phases (Phase 2, Phase 3, and the first and second sets of Phase 4 activities) and adding these results to Phase 1 fuel use in Table 5.5-3 to get the total estimated construction fuel use.

The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. It is anticipated that the majority of off-road construction equipment, such as those used during demolition and grading, would be gas or diesel powered. In addition, all construction equipment would cease operating onsite upon completion of Project construction. Thus, impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure. Furthermore, to limit wasteful and unnecessary energy consumption, the construction contractors are anticipated to minimize nonessential idling of construction equipment during construction, in accordance with § 2449 of CCR, Title 13, Article 4.8, Chapter 9, which limits nonessential idling of diesel-powered off-road equipment to 5 minutes or less.

The Proposed Project would not result in wasteful, inefficient, or unnecessary use of energy during construction. It is anticipated that the construction equipment would be well maintained and meet the appropriate tier ratings per US EPA emissions standards, so that adequate energy-efficiency level is achieved. Construction trips would not result in unnecessary use of energy since the Project Site is centrally located and is served by numerous regional circulation systems (e.g., State Route [SR]-1 [Pacific Coast Highway]) and N9) that provide the most direct routes from various areas of the region. Electrical energy would be available for use during construction from existing power lines and connections, precluding the use of less-efficient generators. Thus, energy use during construction of the Proposed Project would not be considered inefficient, wasteful, or unnecessary. Impacts would be **less than significant**.

Long-Term Impacts During Operation

Operation of the Proposed Project would generate additional demand for electricity and natural gas on the Project Site beyond current uses. The Project Site currently contains 203,734 total square feet of buildings that use energy. Following buildout of the Project, there would be a total of 222,425 square feet of building space. Operational use of energy would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; use of on-site equipment and appliances; and indoor, outdoor, perimeter, and parking lot lighting.

Electrical Energy

As with the existing school facilities, operation of the Proposed Project would consume electricity for various purposes, including, but not limited to, heating, cooling, and ventilation of buildings, water heating, operation of electrical systems, lighting, and use of on-site equipment and appliances. Electrical service to the Proposed Project would continue to be provided by SCE through connections to existing off-site electrical lines and new on-site infrastructure as needed for each phase. For all existing buildings to remain following Phase 1 buildout and full buildout of the Proposed Project, energy use from electricity were based on historical[4] electricity consumption default data from CalEEMod 2020.4. Electricity use from new buildings were based on CalEEMod 2020.4 non-historical electricity default data.[5] As shown in Table 5.5-6, *Electricity Consumption (Phase 1 Buildout)*, electricity use at the Project Site would be 1,286,274 kilowatt hours per year (kWh/year) following Phase 1 buildout. As shown in Table 5.5-7, *Electricity Consumption (Full Buildout)*, electricity use at the Project Site

[4] CalEEMod historical energy data are based on 2005 Title 24, Part 6, energy use data.
[5] CalEEMod nonhistorical energy data are based on 2019 Title 24, Part 6, energy use data.

is estimated to be 1,533,969 kWh/year following full buildout of the Proposed Project. This is primarily due to electricity use by the school buildings. Overall, this would result in an estimated net increase of 28,722 kWh/year following Phase 1 and 276,417 kWh/year after full buildout of the Proposed Project as compared to existing conditions.

Table 5.5-6 Electricity Consumption (Phase 1 Buildout)

Land Use	Electricity (kWh/year)[1]
Proposed Project Conditions	
High School	399,849
Middle School	818,529
Parking Lot	67,896
Total[2]	1,286,274
Existing Electricity Consumption[3]	1,257,552
Net Change from Existing Conditions	28,722

Source: CalEEMod Version 2020.4.
1 Existing conditions for energy uses historic rates based on CalEEMod defaults. For Project buildout conditions following Phase 1, the default electricity rate in CalEEMod was adjusted to reflect 'blended' energy efficiency associated with the existing school buildings that would remain (using historic rates in CalEEMod) and new structures that would be constructed to achieve the 2019 Building and Energy Efficiency Standards (see Appendix D).
2 Total electricity consumption does not include energy generated by the proposed PV system on the Project Site.
3 Existing electricity consumption does not include energy generated by the existing PV system on Buildings A/B that would remain.

Table 5.5-7 Electricity Consumption (Full Buildout)

Land Use	Electricity (kWh/year)[1]
Proposed Project Conditions	
High School	953,260
Middle School	487,049
Parking Lot	93,660
Total[2]	1,533,969
Existing Electricity Consumption[3]	1,257,552
Net Change from Existing Conditions	276,417

Source: CalEEMod Version 2020.4.
1 Existing conditions for energy uses historic rates based on CalEEMod Defaults. For Project buildout conditions, the default electricity rate in CalEEMod was adjusted to reflect 'blended' energy efficiency associated with the existing school buildings that would remain (using historic rates in CalEEMod) and new structures that would be constructed to achieve the 2019 Building and Energy Efficiency Standards (see Appendix D).
2 Total electricity consumption does not include energy generated by the proposed PV system on the Project Site.
3 Existing electricity consumption does not include energy generated by the existing PV system on the Project Site.

While the Proposed Project would generate new electricity demand on-site, it would be required to comply with the current Building Energy-Efficiency Standards and CALGreen. In addition, the new buildings to be constructed would be more energy efficient than the existing school buildings energy to be replaced. Furthermore, the proposed and existing photovoltaic (PV) systems would further reduce electricity consumption on the Project Site. Therefore, the Proposed Project would not result in wasteful or unnecessary electricity demands and would result in a **less-than-significant** impact related to electricity.

Natural Gas Energy

The proposed natural gas consumption for the Project Site is shown in Tables 5.5-8, *Natural Gas Consumption (Phase 1 Buildout)*, and 5.5-9, *Natural Gas Consumption (Full Buildout)*. For all existing buildings to remain following Phase 1 buildout and full buildout of the Proposed Project, energy use from natural gas were based on historical[6] natural gas consumption default data from CalEEMod 2020.4. Natural gas use from new buildings were based on CalEEMod 2020.4 non-historical natural gas default data.[7] The Proposed Project would generate an average natural gas demand of 2,306,942 kilo British thermal units per year (kBTU/year) following Phase 1 buildout and 2,820,413 kBTU/year following full buildout of the Proposed Project. This would result in a net increase of 231,224 kBTU/year following Phase 1 and 744,695 kBTU/year after full buildout of the Proposed Project as compared to existing conditions. While the Proposed Project would generate new natural gas demand on-site, it would be required to comply with the current Building Energy Efficiency Standards and CALGreen. In addition, the new buildings to be constructed would be more energy efficient than the existing school buildings energy to be replaced. Therefore, the Proposed Project would not result in wasteful or unnecessary natural gas demands. Operation of the Proposed Project would result in **less-than-significant** impacts with respect to natural gas usage.

Table 5.5-8 Natural Gas Consumption (Phase 1 Buildout)

Land Use	Natural Gas (kBTU/year)[1]
Proposed Project Conditions	
High School	798,232
Middle School	1,508,710
Total	2,306,942
Existing Natural Gas Consumption	2,075,718
Net Change from Existing Conditions	231,224

Source: CalEEMod Version 2020.4
kBTU = kilo British thermal units
[1] Existing conditions for energy uses historic rates based on CalEEMod Defaults. For Proposed Project buildout conditions, the default natural gas rate in CalEEMod was adjusted to reflect 'blended' energy efficiency associated with the existing school buildings that would remain (using historic rates in CalEEMod) and new structures that would be constructed to achieve the 2019 Building and Energy Efficiency Standards (see Appendix D).

Table 5.5-9 Natural Gas Consumption (Full Buildout)

Land Use	Natural Gas (kBTU/year)[1]
Proposed Project Conditions	
High School	1,903,280
Middle School	917,133
Total	2,820,413
Existing Natural Gas Consumption	2,075,718
Net Change from Existing Conditions	744,695

Source: CalEEMod Version 2020.4
kBTU = kilo British thermal units

[6] CalEEMod historical energy data is based on 2005 Title 24, Part 6, energy use data.
[7] CalEEMod non-historical energy data is based on 2019 Title 24, Part 6, energy use data.

[1] Existing conditions for energy uses historic rates based on CalEEMod Defaults. For Proposed Project buildout conditions, the default natural gas rate in CalEEMod was adjusted to reflect 'blended' energy efficiency associated with the existing school buildings that would remain (using historic rates in CalEEMod) and new structures that would be constructed to achieve the 2019 Building and Energy Efficiency Standards (see Appendix D).

Transportation Energy

The Proposed Project would consume transportation energy during operations from the use of motor vehicles. The efficiency of these motor vehicles is unknown, such as the average mpg. Estimates of transportation energy use are based on the overall VMT and its associated transportation energy use. The Project-related VMT would primarily come from students and staff. However, because student capacity and staffing levels would not increase, the Proposed Project would not result in additional trips or an increase in VMT. Therefore, there would be **no impact** with respect to operation-related fuel usage.

Impact 5.5-2: The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. [Threshold E-2]

The following discusses consistency of the Proposed Project with state plans pertaining to renewable energy and energy efficiency.

California Renewables Portfolio Standard

The state's electricity grid is transitioning to renewable energy under California's Renewable Energy Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. Electricity production from renewable sources is generally considered carbon neutral. Executive Order S-14-08, signed in November 2008, expanded the state's RPS to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). SB 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. On September 10, 2018, Governor Brown signed SB 100, which supersedes SB 350 requirements. Under SB 100, the RPS for public-owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 also established a new RPS requirement of 50 percent by 2026. The bill also established a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under SB 100, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

The statewide RPS goal is not directly applicable to individual development projects, but to utilities and energy providers, such as SCE, which is the utility that would provide all of the electricity needs for the Proposed Project. Compliance of SCE in meeting the RPS goals would ensure the State in meeting its objective in transitioning to renewable energy. The Proposed Project also would be subject to the Building Energy-Efficiency Standards and CALGreen. Because the new school buildings associated with the Proposed Project would comply with the latest 2019 energy standards, it would offer an improvement over the existing buildings on-site. In addition, the District has an adopted Districtwide Plan for Sustainability. The plan incorporates sustainability into education services and all aspects of student learning and integrates climate protection,

resource efficiency, waste management, and other sustainability practices into District operations. The Proposed Project would also include installation of additional solar PV systems. Therefore, implementation of the Proposed Project would not conflict with or obstruct plans for renewable energy and energy efficiency and **no impact** would occur.

5.5.4 Mitigation Measures

No potentially significant impacts have been identified, and no mitigation measures are required.

5.5.5 Level of Significance After Mitigation

No mitigation measures have been identified, and impacts are less than significant.

5.5.6 Cumulative Impacts

The areas considered for cumulative impacts to electricity and natural gas supplies are the service areas of SCE and SoCalGas, respectively, described previously in Section 5.5.1.2. Other projects would generate increased electricity and natural gas demands. However, all projects within the SCE and SoCalGas service areas would be required to comply with the Building Energy-Efficiency Standards and CALGreen, which would contribute to minimizing wasteful energy consumption and promoting renewable energy sources. Therefore, cumulative impacts would be less than significant, and Proposed Project impacts would not be cumulatively considerable.

5.5.7 References

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ENERGY

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5.6 GEOLOGY AND SOILS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Malibu Middle and High School Campus Specific Plan Project (Proposed Project) to impact geologic and soil resources, paleontological resources, or unique geologic features in the City of Malibu. The analysis in this section is based in part on the following technical reports:

- *Geotechnical Exploration Malibu Middle & High School Campus Plan Phase I New High School Core Project Building C 30237 Morning View Drive, City of Malibu, California*, Leighton Consulting, Inc., November 20, 2020, revised January 15, 2021
- *Fault Rupture Hazard Investigation Malibu Middle and High School, 30215 Morning View Drive, Malibu, California 90265*, Leighton Consulting, Inc., March 9, 2021

Complete copies of these technical reports are provided in Appendix H of this DEIR.

Two comment letters were received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project, one from a local resident and the other from the City of Malibu's Planning Department regarding potential mud and debris in the local streets, and the Proposed Project's analysis of fault surface rupture hazards, which are evaluated in this section. The IS/NOP and all scoping comment letters are included as Appendices B and C of this DEIR.

5.6.1 Environmental Setting

5.6.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to geological resources that are applicable to the Proposed Project are summarized below.

Federal

There are no federal regulations directly applicable to the geotechnical conditions at the Project Site. Nonetheless, installations of any underground utility lines are required to comply with industry standards specific to the type of utility (e.g., National Clay Pipe Institute for sewers; American Water Works Association for water lines, etc.) and the discharge of contaminants is required to be controlled through the National Pollutant Discharge Elimination System (NPDES) permitting program for management of construction and municipal stormwater runoff. These standards contain specifications for installation, design, and maintenance to reflect site-specific geotechnical conditions.

State

California Alquist-Priolo Earthquake Fault Zoning Act

The California Alquist-Priolo Earthquake Fault Zoning Act was signed into state law in 1972, and amended, with its primary purpose being to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. This state law was a direct result of the 1971 San

Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. The act requires the State Geologist of the California Geological Survey (CGS) to delineate regulatory zones known as "earthquake fault zones" along faults that are "sufficiently active" and "well defined" and to issue and distribute appropriate maps to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Pursuant to this act and as stipulated in the California Code of Regulations (CCR), Title 14, § 3603(a), structures for human occupancy are not permitted to be placed across the trace of an active fault. The act also prohibits structures for human occupancy within 50 feet of the trace of an active fault, unless proven by an appropriate geotechnical investigation and report that the development site is not underlain by active branches of the active fault, as stipulated in Title 14 of the CCR, § 3603(a). Furthermore, the act requires that cities and counties withhold development permits for sites within an earthquake fault zone until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting, as stipulated in 14 CCR § 3603(d).

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was adopted by the state in 1990 to protect the public from the effects of earthquake hazards other than surface fault rupture, such as strong ground shaking, liquefaction, seismically induced landslides, or other ground failure. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The CGS prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures (CDOC 2019).

California Building Code

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC) within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission, and the code is under Title 24, Part 2, of the CCR. The CBC provides minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors, including occupancy type, the types of soil and rock on-site, and the strength of ground shaking with a specified probability at a site. The CBC is revised every three years. The 2019 CBC took effect January 1, 2020.

Chapter 16 and 16A of the CBC deals with structural design requirements governing seismically resistant construction (§ 1604), including, but not limited to, factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building design (§ 1610). Chapter 18 and 18A include, but are not limited to, the requirements for foundation and soil investigations (§ 1803); excavation, grading, and fill (§ 1804); allowable load-bearing values of soils (§ 1806); retaining walls (§ 1807); and the design of footings, foundations, and slope clearances (§ 1808); and pier, pile, driven, and cast-in-place foundation support systems (§ 1810). Chapter 33 includes, but is not limited to, requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes (§ 3304). Appendix J of the CBC includes, but is not limited to, grading requirements for the design of excavations and fills (§§ J106

and J107) and for erosion control (§ J110). Construction activities are subject to occupational safety standards for excavation, shoring, and trenching, as specified in Cal-OSHA regulations (CCR, Title 8).

California Code of Regulations, Title 5, School Facilities Construction

Title 5 of the CCR identifies specific regulations related to the construction of school facilities in California. These regulations include, but are not limited to, standards for school site selection (§ 14010) and Standards for Development of Plans for the Design and Construction of School Facilities (§ 14030) (California Department of Education 2020).

California Coastal Act of 1976

The California Coastal Act of 1976 (CCA) established a set of policies, coastal boundary lines, and permitting procedures regulating coastal development. It provides for the transfer of permitting authority, with certain limitations reserved for the state, to local governments through adoption and certification of Local Coastal Plans (LCP) by the California Coastal Commission. Under § 30253 of the CCA, development is required to be sited and designed to minimize risks, ensure stability and structural integrity, and neither create not contribute significantly to erosion or require the construction of protective devices that would substantially alter the natural landforms along bluffs and cliffs (§ 30253).

Regional

Los Angeles County All-Hazard Mitigation Plan

The Disaster Mitigation Act of 2000, Public Law 106-390 (§§ 322(a–d)), requires that local governments, as a condition of receiving federal disaster mitigation funds, adopt a mitigation plan that describes the process for identifying hazards, vulnerabilities, and risks; identifies and prioritizes mitigation actions; encourages the development of local mitigation; and provides technical support for those efforts. In response to this and the requirements of the California Office of Emergency Services, the County of Los Angeles prepared the Los Angeles County All-Hazard Mitigation Plan to reduce or eliminate the effects of hazards through well-organized public education and awareness efforts, preparedness, and mitigation.

County of Los Angeles General Plan

The following goal and policies in the safety element address seismic and geotechnical hazards and are relevant to the Proposed Project:

- **Policy S 1.1:** Discourage development in Seismic Hazard and Alquist-Priolo Earthquake Fault Zones.
- **Policy S 1.2:** Prohibit the construction of most structures for human occupancy adjacent to active faults until a comprehensive fault study that addresses the potential for fault rupture has been completed.

Los Angeles County Code

Title 26 (Building Code) of the Los Angeles County Code has been adopted by Title 15 (Building and Construction) of the City of Malibu Municipal Code. Appendix J (Grading) of Title 26 includes provisions

that apply to grading, excavation, and earthwork construction, including fills and embankments and the control of runoff from grade sites, including erosion sediments and construction-related pollutants. The purpose of Appendix J is to safeguard life, limb, property, and the public welfare by regulating grading on private property. Section J104.2.3 (Engineered Grading Requirements) requires that applications for a permit for engineered grading must be accompanied by supporting data consisting of a soils engineering report and engineering geology report. The engineering geology report required by § J104.2.3 must include an adequate description of the geology of the site, conclusions, and recommendations regarding the effect of geologic conditions on the proposed development, and an opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geologic factors. The engineering geology report must include a geologic map and cross-sections using the most recent grading plan as a base. All reports must conform to the requirements of § 111 of this code and are subject to review by the Building Official. Supplemental reports and data may be required as the Building Official may deem necessary. Recommendations included in the reports and approved by the Building Official must be incorporated in the grading plan or specifications.

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

Chapter 3: Marine and Land Resources

The LUP identifies the following policies related to geological resources and soils (City of Malibu 2002b):

- **LUP Policy 3.45 -** All new development shall be sited and designed so as to minimize grading, alteration of physical features, and vegetation clearance in order to prevent soil erosion, stream siltation, reduced water percolation, increased runoff, and adverse impacts on plant and animal life and prevent net increases in baseline flows for any receiving water body.

- **LUP Policy 3.46** - Grading or earthmoving exceeding 50 cubic yards shall require a grading permit. Grading plans shall meet the requirements of the local implementation plan with respect to maximum quantities, maximum cuts and fills, remedial grading, grading for safety purposes, and maximum heights of cut or fill. Grading proposed in or adjacent to an Environmentally Sensitive Habitat Area (ESHA) shall be minimized to the maximum extent feasible.

- **LUP Policy 3.47** - Earthmoving during the rainy season (extending from November 1 to March 1) shall be prohibited for development that is 1) located within or adjacent to ESHA, or 2) that includes grading

on slopes greater than 4:1. In such cases, approved grading shall not be undertaken unless there is sufficient time to complete grading operations before the rainy season. If grading operations are not completed before the rainy season begins, grading shall be halted and temporary erosion control measures shall be put into place to minimize erosion until grading resumes after March 1, unless the City determines that completion of grading would be more protective of resources.

- **LUP Policy 3.48** - Where grading is permitted during the rainy season (extending from November 1 to March 1), erosion control measures such as sediment basins, silt fencing, sandbagging, installation of geofabrics, shall be implemented prior to and concurrent with grading operations. Such measures shall be maintained through final grading and until landscaping and permanent drainage is installed.

- **LUP Policy 3.49** - Grading during the rainy season may be permitted to remediate hazardous geologic conditions that endanger public health and safety.

- **LUP Policy 4.2** - All new development shall be sized, designed, and sited to minimize risks to life and property from geologic, flood and fire hazard.

- **LUP Policy 4.4** - On ancient landslides, unstable slopes and other geologic hazard areas, new development shall only be permitted where an adequate factor of safety can be provided, consistent with the applicable provisions of Chapter 9 of the certified Local Implementation Plan.

- **LUP Policy 4.5** - Applications for new development, where applicable, shall include a geologic/soils/ geotechnical study that identifies any geologic hazards affecting the Proposed Project Site, any necessary mitigation measures, and contains a statement that the Project Site is suitable for the proposed development and that the development will be safe from geologic hazard. Such reports shall be signed by a licensed Certified Engineering Geologist (CEG) or Geotechnical Engineer (GE) and subject to review and approval by the City Geologist.

- **LUP Policy 4.10** - New development shall provide adequate drainage and erosion control facilities that convey site drainage in a non-erosive manner in order to minimize hazards resulting from increased runoff, erosion, and other hydrologic impacts to streams.

Local Coastal Program's Local Implementation Plan

Chapter 8 (Grading Ordinance) of the Local Implementation Plan (LIP) requires that new development that applies for a CDP is subject to the policies, standards, and provisions of this chapter, which is intended to ensure that new development minimizes the visual and scenic resource impacts of grading and landform alteration. Section 8.3 (Development Standards) of this chapter identifies development standards and requires that a grading plan be submitted for approval with building plans. No grading permits shall be issued until a building permit is approved.

Chapter 9 of the LIP implements the policies of the City of Malibu's LUP to ensure that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard. This chapter provides development standards, permit and application requirements, and other measures intended to ensure that

permitted development is sited and designed to assure stability and structural integrity and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area, in any way require the construction of protective devices that would substantially alter natural landforms along canyons, hillsides, bluffs, and cliffs. Development controls to minimize risks associated with low slope stability, faulting, and liquefaction are included in this chapter. As a requirement of § 9.4 (Development Standards), all proposed new development located in or near an area subject to geologic hazards is required to submit a geologic/soils/geotechnical study report prepared by a licensed Certified Engineering Geologist or Geotechnical Engineer that adheres to the City of Malibu's requirements.

City of Malibu Municipal Code

Site development in the City of Malibu is required to comply with Title 16 (Building and Construction) of the Malibu Municipal Code, and all state requirements pertaining to geologic, soil, and seismic hazards. The City of Malibu has adopted Title 26 (Building Code) of the Los Angeles County Code, as amended in 2010, which is based on Title 24 of the CBC.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 5. Safety and Health Element

The Safety Element identifies various policies addressing natural and human-related hazards and the potential methods to reduce risks associated with those hazards. With the adoption of this element, the City of Malibu has established its basis of authority for requiring investigation and, if necessary, remediation of geotechnical hazards that could threaten proposed developments. The information below identifies goals and objectives presented in the Safety Element of the General Plan related to geologic resources. These goals and objectives are considered by the City of Malibu when reviewing proposed development applications. It is an applicant's responsibility to provide the City with appropriate geological and/or geotechnical information for the City to determine whether a project meets the General Plan goals and objectives. The Safety Element identifies the following goals and policies for future development in the city.

S Goal 1: A community that is free from all avoidable risks to safety, health and welfare from natural and man-made hazards

- **S Policy 1.1.1** - The City shall protect people and property from environmental hazards.
- **S Policy 1.1.7** - The City shall minimize the risks from landslides and debris flows.
- **S Policy 1.2.1** - The City shall require development to provide for analysis of site safety related to potential hazards of fault rupture, earthquake ground shaking, liquefaction, and rockfalls.

- **S Policy 1.2.2** - The City shall require development to provide site safety analyses related to landsliding, debris flows, expansive soils, collapsible soils, erosion/sedimentation, and groundwater affects.

  To implement these policies the City shall:

  - **S Implementation Measure 41** - Require that all new construction be designed to be earthquake resistant to maximum probably earthquakes.
  - **S Implementation Measure 42** - Apply all restrictions and investigation requirements mandated by the State under the Alquist-Priolo Special Studies Zones Act for faults classified as "active" to development on properties crossed by or adjacent to the Malibu Coast Fault.
  - **S Implementation Measure 47** - To protect slope stability, restrict grading or development related to vegetation clearance where the slope exceeds 2:1, except as required for fire safety, driveways, and utilities and where there is no reasonable alternative.

City of Malibu's Guidelines for the Preparation of Engineering Geologic and Geotechnical Engineering Reports and Procedures for Report Submittal

The City of Malibu adopted the *Guidelines for the Preparation of Engineering Geologic and Geotechnical Engineering Reports and Procedures for Report Submittal* (Guidelines for Geotechnical Reports) in February 2002. These guidelines provide the minimum standards and recommended format for engineering geologic and geotechnical engineering reports submitted to the City of Malibu. The guidelines do not specify the engineering methods or scope of study for individual development projects. The guidelines provide specific requirements that impact the scope and, in some cases, the engineering methods that are required to meet minimum standards for acceptance. The Guidelines for Geotechnical Reports do not supplant the engineering judgment of the project professionals. In addition, these guidelines explain the procedures for submitting the project to the City of Malibu for review both in the planning and building and safety stages.

5.6.1.2 EXISTING CONDITIONS

Regional Setting

The Project Site is located within a narrow, marine terraced coastal strip separating the present-day beach from the high and steeper slopes of the Santa Monica Mountains. The Santa Monica Mountains are part of Transverse Ranges Geomorphic Province region, 1 of 11 geomorphic provinces in California. The Transverse Ranges is east-west trending, compared to most major physiographic features of California, which trend northwest-southeast or north-south (Leighton Consulting, Inc. 2021a).

Local Setting

Geologic Conditions

The property owned by the Santa Monica-Malibu Unified School District (SMMUSD) is in the Zuma Beach area of the City of Malibu, on the existing Malibu Middle and High School (MMHS) campus, an 87-acre property shared with Juan Cabrillo Elementary School (JCES) and the Malibu Equestrian Center; the Project

Site includes 52.03 of those acres. The Project Site is on the southern flanks of the western portion of the Santa Monica Mountains. The campus consists of several near-level pad areas with generally ascending slopes to the north and descending slopes to the Pacific Coast Highway (PCH) to the south. The majority of the Project Site, including all areas with current development, is on slopes of between 0 and 20 percent, at a minimum of 80 feet above mean sea level (amsl). The perimeter of the Project Site, including the surrounding football field, and areas between building pads, slopes increase to between 40 to 100 percent, reaching up to 170 feet amsl. For the most part, proposed new construction would take place on the flat, previously developed areas of campus, and existing slope conditions would remain.

During field exploration, the following three geologic units were discovered at the Project Site:

- Undocumented Artificial Fill: In general, artificial fill materials were present across the Project Site and were encountered at thicknesses ranging from 1 to 7 feet below ground surface (bgs). It consisted predominantly of locally derived dark brown to black clay with minor amounts of olive-brown silty sand. Due to the lack of available documentation regarding the origin or date of placement, it is considered uncertified and is recommended to be removed, reworked, and replaced as engineered (certified) fill.

- Quaternary Young Non-Marine Terrace Deposits: Beneath artificial fill, Quaternary Young non-Marine and Marine Terrace Deposits were encountered in each of the current subsurface explorations. In general, the non-marine terrace deposits consisted of orange-brown, medium stiff to hard clay and sandy clay grading to medium dense to very dense clayey silty sand and sand with varying proportions of siltstone and sandstone bedrock fragments derived locally from erosion of the highlands to the north. The marine terrace forms the basal unit below the nonmarine sediments and consists of well graded sand, gravel, and cobbles, generally thickening southward along the marine abrasion surface.

- Tertiary Monterey Formation: Based on previous explorations and regional geologic mapping, Monterey Formation bedrock is known to underlie the entire school campus at varying depths and was encountered at a depth of 45 bgs in one boring location. Additionally, in two separate boring locations, auger refusal at depths of approximately 21 feet and 27 feet was encountered, which likely occurred when the borings encountered underlying marine terrace deposits of basal gravel/cobbles at the marine abrasion surface. Limited exposures of Monterey Formation bedrock were mapped during downhole logging and slope mapping as striking northwest to northeast and dipping at approximately 15 to 24 degrees southerly.

Groundwater

Groundwater was not encountered during the investigation at a maximum depth drilled of approximately 46.5 feet bgs. However, moist to very moist soils and bedrock were encountered within explored depths. Groundwater was encountered in a 2009 exploration at a depth of 48.5 feet (Leighton Consulting, Inc. 2009).

Groundwater depth was measured in an existing 4-inch-diameter monitoring well. The details of well construction are unknown; however, the total depth measured was 77.4 feet bgs with a depth to static water level as 58.7 feet bgs corresponding to approximately 52 feet amsl. Seasonal fluctuations should be expected during periods of intense localized rainfall. Groundwater is not expected to pose a constraint to construction (Leighton Consulting, Inc. 2021a).

Geologic and Seismic Hazards

Faults

Faults showing evidence of surface displacement within the last 11,000 years are classified as active by the CGS. The Project Site is not in an Alquist-Priolo Earthquake Fault Zone, and no evidence of active faulting was identified during the Fault Rupture Hazard Investigation (Leighton Consulting, Inc. 2021b). The potential for fault rupture at the Project Site is considered low during the life of the school, and the student risk factor is therefore also considered low. The nearest active faults to the Project Site are the Malibu Coast Fault and Anacapa Fault, approximately 1 mile north and 5 miles south, respectively. Though not currently mapped as an active zoned fault by the State of California, the Escondido Thrust Fault is a potentially active fault that is mapped as traversing the Project Site (also known as the Malibu Coast Fault, Paradise Cove Fault, Rodriguez Canyon Fault, Ramirez Fault, and Escondido Thrust). It is likely more than 300,000 years old and poses no planning constraints to the Proposed Project (Leighton 2021b). See Figure 5.6-1, *Location of the Escondido Thrust Fault*. The Escondido Thrust Fault has been mapped in different locations (±200 feet) by several geologists since the 1970s and with differing movement; however, all have shown the fault trending roughly east-west through the campus of MMHS.

Seismic Ground Shaking

Horizontal ground acceleration, which frequently results in widespread damage to structures, is estimated as a percentage of g, the acceleration of gravity. The damage that an earthquake can cause to a structure depends on the earthquake's size, location, distance, and depth, the types of rock and soil at the surface of the site, and the type of construction of the structure.

When comparing the sizes of earthquakes, the most meaningful feature is the amount of energy released. Thus, scientists most often consider seismic moment, a measure of the energy released when a fault ruptures. Scales of magnitude, which measure amplitude of ground motion, are common measurements of earthquake force. The energy released by an earthquake is measured as moment magnitude (Mw). The moment magnitude scale is logarithmic; therefore, each one-point increase in magnitude represents a 10-fold increase in amplitude of the waves as measured at a specific location and a 32-fold increase in energy. That is, a magnitude 7 earthquake produces 100 times (10 x 10) the ground motion amplitude of a magnitude 5 earthquake.

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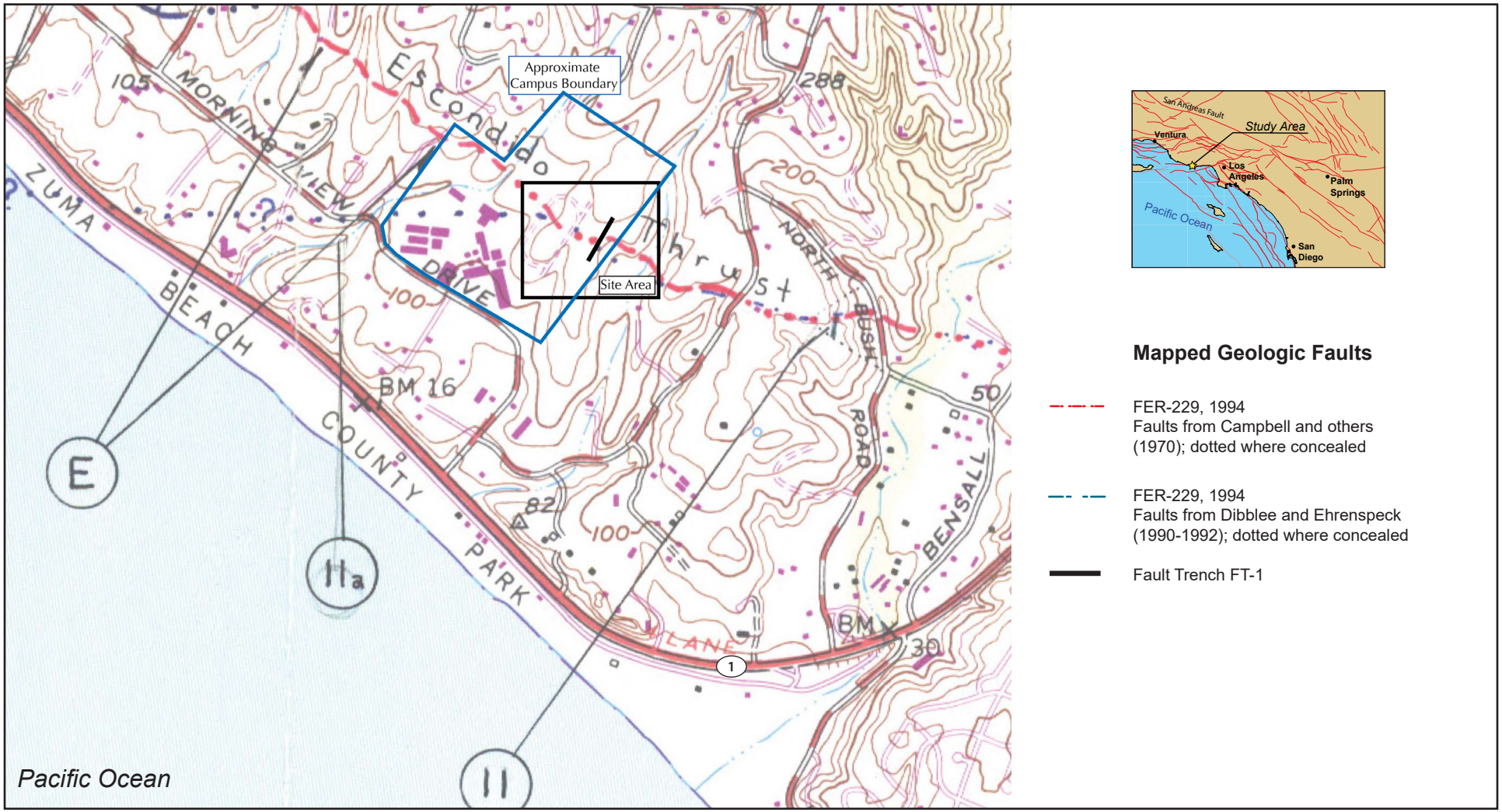
Figure 5.6-1 Location of the Escondido Thrust Fault



Source: Leighton, 2021

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Geologic Hazards

Liquefaction and Lateral Spreading

Liquefaction is the loss of soil strength due to a buildup of excess pore-water pressure during strong and long-duration ground shaking. Liquefaction is associated primarily with loose (low-density), saturated, relatively uniform fine- to medium-grained, clean, cohesionless soils. As shaking action of an earthquake progresses, soil granules are rearranged, and the soil densifies within a short period. This rapid densification of soil results in a buildup of pore-water pressure. When the pore-water pressure approaches the total overburden pressure, soil shear strength reduces abruptly and temporarily behaves similar to a fluid. For liquefaction to occur, there must be loose, clean, granular soils; shallow groundwater; and strong, long-duration ground shaking.

According to the State of California Seismic Hazard Zones Map, the Project Site is not located within an area that has been identified as being potentially susceptible to liquefaction. Additionally, due to the near-surface presence of stiff/hard, clay impacted terrace deposits and relatively shallow bedrock, the potential for liquefaction at this site is low. Since the potential for liquefaction is considered low, the potential for lateral spreading to occur at the site is also considered low (Leighton Consulting, Inc. 2021a).

Earthquake-Induced Landslides

The proposed Project Site is not in an area mapped as potentially susceptible to seismically induced landslides. No landslides are mapped or are known to exist at the Project Site or vicinity. Previous grading and construction at the site have created stepped building pads and parking lots. The potential for seismically induced landslides at the site is considered low (Leighton Consulting, Inc. 2021a).

Debris/Mud Flows

Geologic reconnaissance was performed near the Project Site to visually evaluate the areas impacted by mud and debris flow and erosion after the Woolsey Fire and during the November and December 2018 rain events at MMHS. During the rain events, a 48-inch-diameter storm drain at the cul-de-sac on Clover Heights Avenue was plugged with debris, and debris flows overtopped the inlet structure, spilling onto the campus.

Generally, mud flows occur on slopes with gradients ranging from 26 to 45 degrees. The potential for mud flow depends on soil type, water content, and degree of vegetation in the source zone. Mud flows in this area were the result of the Woolsey Fire, which burned and stripped vegetation and structures from the surrounding slopes. Slopes with gradients between 11 and 26 degrees can be transport zones—debris flows generated from the upslope source areas flow across these transport zones, and the velocity remains relatively constant. In these areas, the loose soil and ash were stripped along the path of flow, as observed in the narrow drainage incisions, thereby increasing flow volume. Areas where the slope gradient is 11 degrees or flatter, that is, the MMHS campus, are depositional areas where mud is deposited as the flow velocity decelerates (Leighton Consulting, Inc. 2021).

The loss of vegetation and structures to support the soil led to the accumulation of moisture in the soil from the rain events, which resulted in structural failure, followed by the flow. During a January 2019 rain event, the 48-inch diameter storm drain at the cul-de-sac on Clover Heights Avenue was plugged, overtopping the inlet

structure and spilling onto the MMHS campus. The flow path generally followed the prior deposition, resulting in additional mud on the Project Site. With the volume of predicted rain and the occurrence of mud flow during the January 2019 rain event, the potential for additional mud to be deposited on the Project Site affecting the regular day-to-day operations cannot be ruled out.

Flooding

The site is not within a designated 100- or 500-year flood zone, as defined by the Federal Emergency Management Agency (FEMA), and therefore the potential for flooding is considered low. Earthquake-induced flooding can be caused by failure of dams or other water-retaining structures as a result of an earthquake. Due to the absence of such structures near the site, the potential for earthquake-induced flooding at the site is considered low (Leighton Consulting, Inc. 2021a). Expansive Soils

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and which shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling.

The near-surface soils are considered to have a high to very high expansion potential. Expansion Index (EI) testing of two representative bulk samples from the upper 5 feet at the Project Site indicate the site soils have an EI of 116 to 134.

Subsidence

Subsidence is a regional lowering of the ground surface. The major cause of ground subsidence in California is withdrawal of groundwater; withdrawal of oil and gas can also cause subsidence. Because the geologic units encountered at the site are moderately hard to hard and are stiff to very stiff, overlying bedrock of the Monterey Formation and not an oil-producing formation, the risk of land subsidence or collapse is considered low (Leighton Consulting, Inc. 2021).

Corrosive Soils

Corrosive soils can lead to deterioration of buried structures, such as underground utilities. Based on corrosivity test results of the on-site soils from recent and prior investigations, the on-site soil is considered severely corrosive to ferrous metals.

Collapsible Soils

Collapsible soils are low-density, silty to very fine-grained, predominantly granular soils, containing minute pores and voids. When saturated, these soils undergo a rearrangement of their grains and a loss of cementation, causing substantial, rapid settlement under even relatively low loads. A rise in the groundwater table or an increase in surface water infiltration, combined with the weight of a building or structure, can cause rapid settlement and consequent cracking of foundations and walls. The upper few feet to several feet of existing soils on a Project Site—whether native soils or soils on a developed site—are often unsuitable to support a building. Geotechnical investigation reports provide recommendations for site preparation, excavation, and grading, including replacement of existing soils with engineered fill soils capable of supporting a building.

Results of the Geotechnical Investigation indicated that the near-surface soils are not susceptible to collapse when wetted (Leighton Consulting, Inc. 2021a).

Paleontological Resources

According to the U.S. Department of Agriculture's (USDA) Web Soil Survey website, there are two soil types present in the Project Site: the Cropley, coastal-Urban land-Haploxererts complex (433), 0 to 30 percent slopes, and Cropley, coastal-Xerorthents, landscaped-Urban land complex (434), 0 to 9 percent slopes. Sediments in the area primarily consist of the Holocene and Pleistocene beach sand, gravel, and alluvial sand, gravel, and clay from floodplains, old dune sand, and older alluvium on terraces. Sediments also include older Miocene Monterey Formation siliceous shale.

Paleontological resources are fossils, or recognizable remains or evidence of past life on Earth, including bones, shells, leaves, tracks, burrows, and impressions. The Project Site is in an area with high paleontological sensitivity (the Monterey Formation geologic unit). The paleontology record checks performed by the Natural History Museum of Los Angeles County for the MMHS Improvements Project concluded that there are no known vertebrate fossil localities within the Project Site, but there are localities nearby from the same sedimentary units that underlain the Project Site (Natural History Museum of Los Angeles County 2008).

5.6.2 Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project would:

G-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

- i) 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 Division of Mines and Geology Special Publication 42.)
- ii) Strong seismic ground shaking.
- iii) Seismic-related ground failure, including liquefaction.
- iv) Landslides.

G-2 Result in substantial soil erosion or the loss of topsoil.

G-3 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- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

G-4 Be located on expansive soil, as defined in Table 18-1B of the Uniform building Code (1994), creating substantial direct or indirect risks to life or property.

G-5 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.

G-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The IS/NOP, included as Appendix B, substantiates that impacts associated with the following thresholds would be less than significant; therefore, these impacts will not be further addressed in this DEIR:

- Threshold G-1i
- Threshold G-1iii

5.6.3 Environmental Impacts

5.6.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.6-1: Future development in the Project Site, pursuant to the Proposed Project would not expose increased numbers of persons and structures to strong ground shaking from active faults in the region. [Threshold G-1ii]

The most significant geologic hazard to development accommodated by the Proposed Project is the potential for moderate to strong ground shaking resulting from earthquakes generated on the faults in seismically active southern California. As with other areas in southern California, it is anticipated that strong ground shaking can be expected to occur during the design lifetimes of structures that would be built pursuant to the Proposed Project. Specifically, buildout would result in a total of 32 classrooms, 8 labs, and support spaces, for a total of 173,595 square feet of new building space, providing the MMHS campus with a total of 47 classrooms and 12 labs and a total of 222,425 square feet of building space. The Proposed Project would not result in an increase in enrollment or student capacity.

As noted previously, the Malibu Coast Fault and Anacapa Fault are approximately 1 mile north and 5 miles south of the Project Site. While not currently mapped as active zoned faults by the State of California, the Escondido Thrust Fault is a potentially active fault that is mapped as traversing the Project Site (also known as the Malibu Coast Fault, Paradise Cove Fault, Rodriguez Canyon Fault, Ramirez Fault, and Escondido Thrust). It is likely more than 300,000 years old and poses no planning constraints to the Proposed Project (Leighton 2021b). See Figure 5.6-1, *Location of the Escondido Thrust Fault*. The Escondido Thrust Fault has been mapped in different locations (±200 feet) by several geologists since the 1970s, with differing movement; however, all have shown the fault trending roughly east-west through the High School campus area of MMHS. These active faults, as well as others in the region including the San Andreas fault), are considered capable of producing strong shaking at the Project Site, thereby exposing people or structures on-site to potential substantial adverse effects, including the risk of loss, injury, or death. Earthquakes along active faults are generally capable of generating ground shaking of engineering significance to the Project Site. The intensity of ground shaking on

the Project Site would depend on the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the Project Site.

However, the Project Site is not at a greater risk of seismic activity or impacts than other sites in southern California. Seismic shaking is a risk throughout Southern California. Additionally, California and the City regulate development in Malibu through a variety of tools that reduce geologic and seismic hazards, including earthquakes. For example, the state regulations protecting human-occupied structures from geo-seismic hazards are provided in the most recent CBC. The CBC, adopted by reference in the City's municipal code, contain provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. For example, the CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground motion with specified probability of occurring at the site. The design and construction of the Proposed Project would be required to adhere to the provisions of the CBC, which are imposed on project developments by the City's Planning Department during the development review and building plan check process. Compliance with the requirements of the CBC for structural safety during a seismic event would reduce hazards from strong seismic ground shaking.

Furthermore, requirements for geotechnical investigations are included in CBC Appendix J (Grading), § J104.3 (Geotechnical Reports). Future development accommodated by the Proposed Project would be required to have site-specific geotechnical investigation reports prepared by the project applicant's/developer's geotechnical consultant, in accordance with the CBC. The geotechnical investigations would determine seismic design parameters for the site and the proposed building type per CBC requirements. For example, geotechnical testing of samples from subsurface investigations (such as from borings or test pits) would be undertaken as a part of the geotechnical investigation. The soil samples would be analyzed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, expansiveness, and other characteristics and factors. Also, CBC § 1705.6 establishes requirements for inspection and observation during and after grading. Compliance with the design parameters and recommendations of the geotechnical investigation reports and the provisions of the CBC would be required as a condition of a grading permit and would be ensured by the City's Planning Department during the development review and building plan check process. All school plans would be required to comply with the Field Act, and the Division of the State Architect's review would ensure that all seismic requirements under Title 24 of the California Building Code for school buildings are met. Additionally, the City would require geotechnical studies within the Project Site, in compliance with Title 24.

In accordance with the California Department of Education, the Proposed Project would comply with Title 5 of the CCR, which regulates the siting of school facilities. Title 5 identifies standards for school site selections (§ 14010), which states the site shall not contain an active earthquake fault or fault trace. Pursuant to Education Code §§ 17212 and 17212.5, the site shall not be within an area of flood or dam flood inundation unless the cost of mitigating the flood or inundation impact is reasonable. The site is not subject to moderate to high liquefaction or landslides. In addition, Title 5 identifies standards for development of plans for the design and construction of school facilities (§ 14030), which include specific planning and design standards for site layouts, playground and field areas, future expansion, placement of buildings, classrooms and specialized areas, laboratories, gymnasiums, and auxiliary areas (California Department of Education 2020).

In summary, compliance with the provisions of the CCR and CBC and required implementation of the recommended design recommendations outlined in the geotechnical reports—which as noted above, is required to be prepared pursuant to the CBC—would reduce hazards arising from strong seismic ground shaking. Therefore, impacts resulting from strong ground shaking would be **less than significant**.

Impact 5.6-2: Future development in the Project Site would not result in substantial soil erosion or the loss of topsoil. [Thresholds G-2]

The potential exists for soil erosion during project construction of each phase, as underlying ground surfaces are exposed. Construction of the Proposed Project would result in ground surface disturbance during excavation, grading, and trenching that could create the potential for soil erosion to occur. Site preparation would require removal of necessary vegetation, existing structures, unsuitable fill, and asphalt and concrete paving, exposing pervious surfaces to the elements.

Topsoil is the uppermost layer of soil, usually the top 6 to 8 inches. It has the highest concentration of organic matter and microorganisms and is where most biological soil activity occurs. Plants generally concentrate their roots in and obtain most of their nutrients from this layer. Topsoil erosion is of concern for two reasons: when the topsoil layer is blown or washed away, plant life or agricultural production is reduced or eliminated; the soil particles eroded from a development site cause turbidity in the drainage ways, creeks, and ponds where the soil is deposited, reducing water quality and endangering aquatic habitat. Generally, in a developed environment, such as the portion of the campus where most of the proposed new construction would occur, topsoil erosion is not an issue because there is little to no existing and exposed topsoil or any agricultural or biological production that would be affected.

Further, each phase of the Proposed Project would be required to comply with NPDES permit requirements to control pollutants from being discharged into the water. Under the NPDES permit, which applies to grading activities of more than one acre and is administered under the Regional Water Quality Control Board (RWQCB), the SMMUSD would be required to prepare and implement a SWPPP, including a best management practices (BMP) program to address construction-related discharges. Preparation of the SWPPP is described in detail in Section 5.9, *Hydrology and Water Quality*, of this EIR. BMPs include, but are not limited to, the implementation of erosion and sediment controls. Because construction would occur throughout the year, erosion-control BMPs must be implemented to ensure that sediment is confined to the construction area and not transported off-site. During construction, all stormwater runoff would be diverted to the appropriate catch basins and drainage channels subject to all applicable regulatory statutes and permits, including those found in Title 15 (Building and Construction) of the Malibu Municipal Code, which adopts Title 26 (Building Code) of the Los Angeles County Code.

Soil erosion during the operation of the Proposed Project would be controlled by implementation of an approved landscape and irrigation plan, installation, and maintenance of post-construction BMPs, and paving of surface parking areas.

Adherence to the NPDES permit requirements and preparation of the SWPPP, which satisfies the requirements of § 8.3.J of the City of Malibu's LIP, including implementation and maintenance of appropriate BMPs through

both construction and operation of the Proposed Project. As well as adherence to the erosion-control standards of the 2007 (or most current) CBC, as required by state law and the Malibu Building Code, would minimize effects from erosion and ensure consistency with the RWQCB Water Quality Control Plan. In view of these requirements, the Proposed Project would have a **less than significant** impact associated with soil erosion or loss of topsoil. No mitigation is required.

Impact 5.6-3: Future development in the Project Site could subject persons or structures to hazards arising from off-site landslide, lateral spreading, subsidence, collapsible soils, or expansive soils. [Thresholds G-1iv, G-3, and 4]

Landslides, Mud/Debris Flows, and Lateral Spreading

Slope failures in the form of landslides are common during strong seismic shaking in areas of steep hills or slopes. As noted previously, the Project Site is not located in an area mapped as potentially susceptible to seismically-induced landslides (Leighton Consulting, Inc. 2021). Previous grading and construction at the Project Site have created stepped building pads and parking lots. While grading for each phased development area would be required, the Project would be developed consistent with the existing topography. Therefore, the potential for seismically induced landslides at the Project Site is considered low and impacts would be **less than significant**.

Lateral spreading is a phenomenon that occurs in association with liquefaction and includes the movement of non-liquefied soil materials. As discussed in Section 5.6.1.2, results of the geotechnical report indicated that the potential for lateral spreading is considered low (Leighton Consulting, Inc. 2021a). Therefore, impacts associated with lateral spreading would be **less than significant**.

The potential for mud flow depends on soil type, water content, and degree of vegetation in the source zone. Mud flows have occurred in the Project area as a result of the 2018 Woolsey Fire, which burned and stripped vegetation and structures from the surrounding slopes. The loss of surficial support provided by vegetation combined with the accumulation of moisture from prolonged rain events in the loose and disturbed soil resulted in mud flows.

The source zone near the Project Site is in the northwest, which contains steep-sided canyons north of Cuthbert Road that lack vegetation and mature trees. The transport zone is generally defined as the mouth of the canyon from approximately Cuthbert Road where mud flows blocked the road, down gradient to south of the intersection of Harvester Road and Clover Heights Avenue, an area of approximately 2,400 linear feet. The depositional zone is identified as the MMHS ballfields, immediately south of the northern chain-link fence and down gradient to the debris basin in the southwest region of the parking lot, or a linear distance of approximately 1,100 feet. Although there are relatively thick deposits of colluvium and ash on slopes above and surrounding the campus, the gradient of the flow pathway (depositional zone) is relatively flat (approximately 5 degrees).

However, since the December 2018 mud flow event, the slopes above the campus have revegetated with light grasses, homes are being rebuilt, and drainage pathways corrected. A number of drainage diversion devices have been installed on-site, including K-rail barriers, earthen berm, gravel bag barriers, concrete channel with

side walls, and debris rack cage to redirect stormwater and debris flows on-site Thus, based on the relatively gentle slope inclination (approximately 5 degrees) and long depositional zone (1,100 feet), which has a defined flow path, the likelihood of a debris flow from the source area causing significant structural damage to the MMHS campus is low. Although mud flows should be expected to impact the Project Site, the Proposed Project would use existing and improved drainage diversion devices such as sandbags, K-rails, and hydro barriers placed along the known flow paths to divert runoff to the west side channel. Therefore, impacts associated with mud flows would be **less than significant**.

Subsidence, Collapsible, Expansive, and Corrosive Soils

Subsidence and Collapsible Soils

The major cause of ground subsidence is the excessive withdrawal of groundwater. Soils with high silt or clay content are particularly susceptible to subsidence. Because the geologic units encountered at the site are moderately hard to hard and are stiff to very stiff, overlying bedrock of the Monterey Formation, the risk of land subsidence or collapse is considered low. Additionally, near-surface soils are not susceptible to collapse when wetted (Leighton Consulting, Inc. 2021). Therefore, impacts associated with subsidence and collapsible soils would be **less than significant**.

Expansive Soils

The composition of on-site materials is in the high to very high expansion range with an Expansion Index (EI) of 116 to 134. Additional testing is recommended during the design stage or at completion of grading. For purposes of design, it is recommended to use an EI greater than 130. Upon completion of mass grading of the site, additional expansion testing would be performed to quantify EI values and ensure recommendations of the geotechnical report (Leighton 2021a) are applicable or require revision. The Proposed Project would implement Mitigation Measure GEO-1, which would follow design recommendations listed in the geotechnical report prepared for the Proposed Project. These include, but are not limited to, seismic design parameters, foundation design, retaining wall, grading, use of nonexpansive soils, etc. Additionally, implementation of standard engineering and earthwork construction practices, such as proper foundation design and proper moisture conditioning of earthen fills, would reduce the effects associated with expansive soils. Therefore, with the implementation of Mitigation Measure GEO-1, impacts would be **less than significant**.

Impact 5.6-4: Soil conditions at the Project Site could adequately support proposed septic tanks. [Threshold G-5]

The existing campus is currently served by a septic system. Currently, 10 on-site wastewater treatment systems exist on the Project Site. Each of these systems services different areas and facilities on the campuses. These wastewater systems consist of septic tanks, distribution boxes, leach fields, and seepage pits. A typical septic system consists of one septic tank connected to several seepage pits. The existing septic systems are in the following locations:

- **Septic System 1** is under the Lower Parking Lot (D).
- **Septic System 2** was a cesspool removed previously (no longer present).

- **Septic System 3** is adjacent to the current Auditorium and Building H.
- **Septic System 4** is directly south of the existing Auditorium.
- **Septic System 5** is near the current Building K.
- **Septic System 6** is under the existing basketball courts, east of Building J.
- **Septic System 7** is on the southwestern boundary of the Project Site.
- **Septic System 8** is to the west of Building K.
- **Septic System 9** is south of the existing JCES library.
- **Septic System 10** is under the existing JCES Building C but was disconnected and is no longer being used.
- **Septic System 11** is to the north of the existing Bus Barn.

The Proposed Project would result in seven total septic systems. The Proposed Project would remove septic systems 6 through 11 and would add five septic systems. Table 5.6-1, *Proposed Septic Systems*, provides details for the implementation of each septic tank for the Proposed Project.

Table 5.6-1 Proposed Septic Systems

Infrastructure Improvement	Location of Proposed Septic Tanks
Septic 1.1	This septic tank would be under the proposed Parking Lot B (currently Parking Lot D). The tank and seepage pits would remain as is but total flow to this system would be modified.
Septic 2.1	This septic tank would be near Building D and serve Building D. The tank and seepage pits would be new and would replace the old system 5.0, which would be removed.
Septic 3.1	This septic tank would be to the west of Building A/B. The tank and seepage pits would remain as is but total flow to this system would be modified.
Septic 4.1	This septic tank would be under Parking Lot C and serve the Theatre and Performing Arts Buildings. The tank and seepage pits would be new and would replace old system 4.0, which would be removed.
Septic 5.1	This septic tank would be adjacent to the Malibu Equestrian Park and would serve the bus barn. The tank and seepage pits would be new and would replace old system 11.0, which would be removed.
Septic 6.1	This septic tank would be near the Malibu Middle School Hard Courts and serve Buildings J, L, and M. The tank and seepage pits would be new and would replace the old system 6.0, which would be removed.
Septic 7.1	Septic System 7.1 would be east of the Malibu High School Building (building C) and serve Malibu High School. The tank and seepage pits would be new and would replace old systems 7.0, 8.0, 9.0, and 10.0, which would be removed.

The Project Site is constructed on a soil association named Cropley, coastal-Xerorthents, landscaped–Urban land complex, 0 to 9 percent slopes, and is surrounded by a soil association named Cropley, coastal–Urban land–Haploxererts complex, 0 to 30 percent slopes. The most obvious difference between these soil associations is the steeper slopes of the association surrounding the campus. They are quite similar in other respects, the most important of which (for the purposes of on-site sewage disposal systems) is the high clay content of the natural soils—as much as 60 percent near the ground surface, diminishing to no less than 30 percent at depth. Soil associations throughout Malibu are rated by the Natural Resources Conservation Service (NRCS) as moderately to severely limited for the use of on-site sewage disposal systems, and these two associations have severe limitations related to slow percolation rates (caused by the high clay content); shallow depths to the underlying bedrock (less than 72 inches); and, in the case of the Cropley, coastal–Urban land–Haploxererts complex, steep slopes (greater than 15 percent).

Corrosive Soils

Results of the Geotechnical Investigation (Leighton 2021a) indicated that the near-surface soils are considered severely corrosive to ferrous metals (metals that contain mostly iron) and moderate sulfate attack of concrete. Water-soluble sulfates in soil can react adversely with concrete. As referenced in the 2019 CBC, § 1904A, concrete subject to exposure to sulfates shall comply with requirements in American Concrete Institute (ACI) 318. Based on testing results of the on-site soils from recent and prior investigations, concrete structures in contact with the on-site soil would likely have "negligible" to "moderate" exposure to water-soluble sulfates in the soil. Therefore, common Type II Portland cement may be used for concrete construction in contact with site soils. Consistent with the recommendations of the Geotechnical Investigation, subgrade soil should be tested for water-soluble sulfate content prior to final design of the concrete structures once grading is complete. Import fill soil should be geotechnically tested for corrosivity and sulfate attack before import to the site. Further testing of import soils should include analytical testing for chemicals of concern prior to import and acceptance (Leighton 2021a).

Ferrous pipe buried in moist to wet site earth materials should be avoided by using high-density polyethylene (HDPE), polyvinyl chloride (PVC), and/or other nonferrous pipe when possible. Ferrous pipe can also be protected by polyethylene bags, tap or coatings, di-electric fittings, or other means to separate the pipe from on-site soils. The Proposed Project would comply with the 2019 CBC and requirements in the site-specific Geotechnical Investigation. Thus, soil conditions at the Project Site could adequately support proposed septic tanks. Therefore, impacts would be **less than significant**.

Impact 5.6-5: Buildout of the Proposed Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. [Threshold G-6]

As discussed previously, the Project Site is in an area with high paleontological sensitivity (the Monterey Formation geologic unit), and excavation into undisturbed sediments of the Monterey Formation have the potential to destroy undiscovered unique paleontological resources during construction of each of the Project phases (Petra Paleontology 1999). The paleontology record checks performed by the Natural History Museum of Los Angeles County for the MMHS Improvements Project concluded that there are no vertebrate fossil localities within the Project Site, but there are localities nearby from the same sedimentary units that underlie the Project Site (Natural History Museum of Los Angeles County 2008). Given that construction of the Proposed Project would involve ground-disturbing activities in an area of paleontological sensitivity, impacts are considered potentially significant. Section 5.4, *Cultural Resources*, of this EIR requires implementation of Mitigation Measure CUL-1, which requires a Qualified Paleontologist to conduct sensitivity training in advance of ground-disturbing activities for each phase and to be retained and available during ground disturbance. It also provides measures to take if paleontological resources are inadvertently discovered during construction. With the implementation of Mitigation Measure CUL-1, impacts would be **less than significant**.

5.6.4 Mitigation Measures

Impact 5.6-3

GEO-1 Design recommendations listed in the Geotechnical Report prepared for the Proposed Project shall be followed. These include, but are not limited to, seismic design parameters, foundation design, retaining wall, grading, trenching, etc. Details of these recommendations are included in Appendix G.

5.6.5 Level of Significance After Mitigation

Mitigation Measures GEO-1 and CUL-1 would reduce potential impacts to geology and soils to a level that is less than significant. Therefore, no significant unavoidable adverse impacts to geology and soils have been identified.

5.6.6 Cumulative Impacts

Geology and soils impacts are site-specific and generally do not combine to result in cumulative impacts. Similar to the Proposed Project, other development projects in the City of Malibu would be required to comply with applicable state and local building regulations, including the CBC. Site-specific geologic hazards would be addressed in each project's geotechnical investigation. Additionally, other development projects in Malibu would be subject to the same resource protection requirements as the Proposed Project. Other development projects would also require site-specific paleontological analysis that could lead to mitigation requiring monitoring and recovery, identification, and curation of any resources discovered. Therefore, no significant cumulative impact would occur, and the Proposed Project's contribution would not be cumulatively considerable.

5.6.7 References

California Department of Conservation (CDOC). 2019. https://www.conservation.ca.gov/cgs/hazards/seismic-hazards-mapping-act.

California Department of Education. 2020. Title 5, California Code of Regulations. https://www.cde.ca.gov/ls/fa/sf/title5regs.asp.

Leighton Consulting, Inc. 2009, January 16. Geotechnical Investigation and Recommendations for the Proposed New Administration and Classroom Building and Bleachers with Light Poles for the Football Field, Malibu Middle/High School, 30215 Morning View Drive, Malibu, California.

———. 2021a, January 15 (revised). Geotechnical Exploration Malibu Middle & High School Campus Plan Phase I New High School Core Project 30237 Morning View Drive, City of Malibu, California. November 20, 2020.

———. 2021b, March 9. Fault Rupture Hazard Investigation Malibu Middle and High School, 30215 Morning View Drive, Malibu, California 90265.

5. Environmental Analysis
GEOLOGY AND SOILS

Natural History Museum of Los Angeles County. 2008, August 7. Vertebrate Paleontology Records Check for paleontological resources for the proposed Malibu High School redevelopment Project, in the City of Malibu, Los Angeles County, project area.

Petra Paleontology. 1999, August 4. Paleontological Resource Assessment Malibu High School.

5.7 GREENHOUSE GAS EMISSIONS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Malibu Middle and High School Campus Specific Plan Project (Proposed Project) to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG, climate change impacts of a project are considered on a cumulative basis. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (South Coast AQMD). GHG emissions modeling was conducted using the California Emissions Estimator Model (CalEEMod), version 2020.4, and model outputs are in Appendix D of this DEIR.

The analysis in this section is based in part on the following technical report(s):

- *Health Risk Assessment Background and Modeling Data*, PlaceWorks, August 2021
- *Malibu Middle and High School Campus Specific Plan Transportation Impact Analysis*, Kittelson & Associates, August 2021

Complete copies of these technical reports are provided in Appendices E and M of this DEIR.

Two comment letters were received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project by the California Department of Transportation and South Coast AQMD. The following section addresses the comments from the California Department of Transportation (Caltrans) and South Coast AQMD. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.7.1 Environmental Setting

5.7.1.1 TERMINOLOGY

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a greenhouse gas absorbs relative to a molecule of carbon dioxide (CO_2) over a given period of time (20, 100, and 500 years). CO_2 has a GWP of 1.
- **Carbon dioxide-equivalent (CO_2e).** The standard unit to measure the amount of greenhouse gases in terms of the amount of CO_2 that would cause the same amount of warming. CO_2e is based on the GWP ratios between the various GHGs relative to CO_2.
- **$MTCO_2e$.** Metric ton of CO_2e.
- **$MMTCO_2e$.** Million metric tons of CO_2e.

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Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).[1,2] The major GHGs applicable to the Proposed Project are briefly described.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in landfills and water treatment facilities.

- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime or persistence of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 5.7-1, *GHG Emissions and Their Relative Global Warming Potential Compared to CO_2*. The GWP is used to convert GHGs to CO_2-equivalence (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under the IPCC Fourth Assessment Report's (AR4) GWP values for CH_4, a project that generates 10 MT of CH_4 would be equivalent to 250 MT of CO_2.[3]

[1] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop rather than a primary cause of change.

[2] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017a). However, state and national GHG inventories do not include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

[3] CO_2-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Table 5.7-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2

GHGs	Second Assessment Report (SAR) GWPs[2]	Fourth Assessment Report (AR4) GWPs[2]	Fifth Assessment Report (AR5) GWPs[2,3]
Carbon Dioxide (CO_2)	1	1	1
Methane (CH_4)[1]	21	25	28
Nitrous Oxide (N_2O)	310	298	265

Sources: IPCC 1995, 2007.

[1] The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

[2] Based on 100-year time horizon of the GWP of the air pollutant compared to CO_2.

[3] The GWP values in the IPCC's Fifth Assessment Report (IPCC 2013) reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, the AR4 GWP were used values to maintain consistency in statewide GHG emissions modeling utilized in CalEEMod. In addition, the 2017 Scoping Plan Update was based on the AR4 GWP values.

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities. The amount of CO_2 in the atmosphere has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are hard to predict. Projections of climate change depend heavily on future human activity. Therefore, climate models are based on different emission scenarios that account for historical trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in the frequency of warm spells and heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.

- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

Potential Climate Change Impacts for California

Observed changes over the last several decades across the western United States reveal clear signs of climate change. Statewide, average temperatures increased by about 1.7°F, from 1895 to 2011[4], and warming has been greatest in the Sierra Nevada (CCCC 2012). The years from 2014 through 2016 showed unprecedented temperatures, with 2014 being the warmest (OEHHA 2018). By 2050, California is projected to warm by approximately 2.7°F above 2000 averages[5], a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1 to 8.6°F, depending on emissions levels (CCCC 2012).

In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures; 2) a smaller fraction of precipitation falling as snow; 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones; 4) advanced shift in the timing of snowmelt of 5 to 30 days earlier in the spring; and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). Overall, California has become drier over time, with five of the eight years of severe to extreme drought occurring between 2007 and 2016, and with unprecedented dry years in 2014 and 2015 (OEHHA 2018). Statewide precipitation has become increasingly variable from year to year, with the driest consecutive four years occurring from 2012 to 2015 (OEHHA 2018). According to the California Climate Action Team—a committee of state agency secretaries and the heads of agencies, boards, and departments, led by the Secretary of the California Environmental Protection Agency—even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.7-1), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 5.7-2, *Summary of GHG Emissions Risks to California*, and include impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy.

Table 5.7-2 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels
Water Resources Impacts	Decreasing Sierra Nevada snowpack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation

[4] In 1956, the average temperature in the United States was 56.5°F (NOAA 2021).
[5] In year 2000, California had an average temperature of 58.8 °F (NOAA 2021)

Table 5.7-2 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: CEC 2006, 2009; CCCC 2012; CNRA 2014.

5.7.1.2 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to greenhouse gasses that are applicable to the Proposed Project are summarized in this section.

Federal

United State Environmental Protection Agency

The US Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings responded to the 2007 US Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings did not in and of themselves impose any emission reduction requirements but allowed the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (USEPA 2009).

To regulate GHGs from passenger vehicles, the EPA was required to issue an endangerment finding. The finding identified emissions of six key GHGs—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF_6)—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the Project's GHG emissions inventory because they constitute the majority of GHG emissions

and, per South Coast AQMD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

State

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Executive Order B-30-15, Assembly Bill (AB) 32, Senate Bill (SB) 32, and SB 375.

Executive Order S-03-05

Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and targets for reductions in GHG emissions are generally embodied in AB 32. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction goals established in Executive Order S-03-05.

CARB 2008 Scoping Plan

The first Scoping Plan was adopted by the California Air Resources Board (CARB) on December 11, 2008. The 2008 Scoping Plan identified that GHG emissions in California were anticipated to be 596 $MMTCO_2e$ in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ for the state (CARB 2008). To effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 $MTCO_2e$ per year, prepare a plan demonstrating how the 2020 deadline could be met, and develop appropriate regulations and programs to implement the plan by 2012.

First Update to the Scoping Plan

CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan, adopted May 22, 2014, highlighted California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated AR4 GWPs, which slightly increased the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, to 431 $MMTCO_2e$ (CARB 2014).

The First Update to the Scoping Plan found that California was on track to meet the goals of AB 32. However, the update also addressed the state's longer-term GHG goals in a post-2020 element. The post-2020 element provided a long-term strategy for meeting the 2050 GHG goal, including a recommendation for the state to

adopt a midterm target. According to the First Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals (CARB 2014). CARB identified that reducing emissions to 80 percent below 1990 levels would require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014).

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions in the state to 40 percent below 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, "Safeguarding California," in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197, making the Executive Order goal for year 2030 into a statewide, mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 24, 2017, CARB approved the 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017b).

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero-emission (ZE/NZE) vehicle technologies; continued investment in renewables such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conserve agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten emissions limits on criteria air pollutants and toxic air contaminants from a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZE buses and trucks.

- Low Carbon Fuel Standard (LCFS) with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency and utilizes near-zero emissions technology and deployment of ZE trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to these statewide strategies, the 2017 Climate Change Scoping Plan identified local governments as essential partners in achieving the state's long-term GHG reduction goals and recommended local actions to reduce GHG emissions—for example, statewide targets of no more than 6 $MTCO_2e$ or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. CARB recommends that local governments evaluate and adopt locally appropriate, robust, and quantitative goals that align with the statewide per capita targets and sustainable development objectives, and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percentage reductions necessary to reach the 2030 and 2050 climate goals (40 percent and 80 percent, respectively) to the state's 1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population) consistent with the Scoping Plan and the state's long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions—especially from vehicle miles traveled (VMT)—and direct investments in GHG reductions in the project's region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

The Scoping Plan scenario is set against what is called the "business-as-usual" yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 5.7-3, *2017 Climate Change Scoping Plan Emissions Reductions Gap*. It includes the existing renewables requirements, advanced clean cars, the "10 percent" LCFS, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table, the known commitments are expected to result in emissions that are 60 $MMTCO_2e$ above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays

in implementation or technology, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

Table 5.7-3 2017 Climate Change Scoping Plan Emissions Reductions Gap

Modeling Scenario	2030 GHG Emissions $MMTCO_2e$
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	**260**
Gap to 2030 Target	**60**

Source: CARB 2017b.

Table 5.7-4, *2017 Climate Change Scoping Plan Emissions Change by Sector*, provides estimated GHG emissions compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030. The following sectors would be applicable to the Proposed Project: Residential and Commercial, Electric Power, Recycling and Waste, and Transportation.

Table 5.7-4 2017 Climate Change Scoping Plan Emissions Change by Sector

Scoping Plan Sector	1990 $MMTCO_2e$	2030 Proposed Plan Ranges $MMTCO_2e$	% Change from 1990
Agricultural	26	24-25	-8% to -4%
Residential and Commercial	44	38-40	-14% to -9%
Electric Power	108	30-53	-72% to -51%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-15% to -8%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink[1]	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	NA
Total	**431**	**260**	**-40%**

Source: CARB 2017b.
Notes: TCU = Transportation, Communications, and Utilities; TBD = to be determined.
[1] Work was underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

Senate Bill 375

In 2008, the Sustainable Communities and Climate Protection Act, SB 375, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPO). The Southern California Association of Governments (SCAG)

is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and released another update in February 2018. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks compared to 2005. This excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies such as statewide road user pricing. The proposed targets call for greater per capita GHG emission reductions from SB 375 than are currently in place, which for 2035, translates into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted sustainable communities strategies (SCS). As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 $MMTCO_2e$ in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018). CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018, are subject to these new targets.

Regional

SCAG's Regional Transportation Plan / Sustainable Communities Strategy

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan. For the SCAG region, the draft 2020-2045 RTP/SCS (Connect SoCal) was adopted on May 7, 2020, for the limited purpose of transportation conformity (SCAG 2020). The Connect SoCal Plan was fully adopted in September 2020. In general, the SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land use strategies in development of the SCAG region through horizon year 2045 (SCAG 2020). Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. Additionally, Connect SoCal also forecasts that implementation of the plan will reduce VMT per capita in year 2045 by 4.1 percent compared to baseline conditions for that year. Connect SoCal includes a "Core Vision" that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investments in transit and complete streets.

Energy Efficiency Regulations

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018, and went into effect on January 1, 2020. The 2022 Building Energy Efficiency Standards will be adopted in 2021 with an effective date of January 1, 2023.

The 2019 standards move toward cutting energy use in new homes by more than 50 percent and require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings are 30 percent more energy efficient than under the 2016 standards, and single-family homes are 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards (CEC 2018b).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[6] The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011, and were last updated in 2019. The 2019 CALGreen standards became effective January 1, 2020.

[6] The green building standards became mandatory in the 2010 edition of the code.

CALGreen § 5.408 also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Diversion Regulations

AB 939: Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting (Public Resources Code §§ 40050 et seq.). In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

Assembly Bill 341

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. CALGreen § 5.408 also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

Assembly Bill 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327) requires areas to be set aside for collecting and loading recyclable materials in development projects (Public Resources Code §§ 42900 et seq.). The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Assembly Bill 1826

In October 2014, Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

Water Efficiency Regulations

SBX7-7

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

Assembly Bill 1881: Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Short-Lived Climate Pollutant Reduction Strategy

Senate Bill 1383

On September 19, 2016, the governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and methane. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 required the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants—to reduce methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfill. On March 14, 2017, CARB adopted the "Final Proposed Short-Lived Climate Pollutant Reduction Strategy," which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s despite the tripling of diesel fuel use (CARB 2017b). In-use on-road rules were expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. South Coast AQMD is one of the air districts that requires air pollution control technologies for chain-driven broilers, which reduces particulate emissions from these char broilers by over 80 percent (CARB 2017b). Additionally, South Coast AQMD Rule 445 limits installation of new fireplaces in the SoCAB.

Regional

South Coast Air Quality Management District

South Coast AQMD adopted a significance threshold of 10,000 $MTCO_2e$ per year for permitted (stationary) sources of GHG emissions for which South Coast AQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, South Coast AQMD convened a GHG CEQA Significance Threshold Working Group. Based on the last Working Group meeting in September 2010 (Meeting No. 15), South Coast AQMD identified a tiered approach for evaluating GHG emissions for development projects where South Coast AQMD is not the lead agency (South Coast AQMD 2010a). The following tiered approach has not been formally adopted by South Coast AQMD.

- **Tier 1.** If a project is exempt from CEQA, project-level and contribution to significant cumulative GHG emissions are less than significant.

- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (e.g., city or county), project-level and contribution to significant cumulative GHG emissions are less than significant.

- **Tier 3.** If GHG emissions are less than the screening-level criterion, project-level and contribution to significant cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, South Coast AQMD requires an assessment of GHG emissions. Project-related GHG emissions include on-road transportation, energy use, water use, wastewater generation, solid waste disposal, area sources, off-road emissions, and construction activities. The South Coast AQMD Working Group decided that because construction activities would result in a "one-time" net increase in GHG emissions, construction activities should be amortized into the operational phase GHG emissions inventory based on the service life of a building. For buildings in general, it is reasonable to look at a 30-year time frame, since this is a typical interval before a new building requires the first major renovation. South Coast AQMD identified a screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types. The bright-line screening-level criteria are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds. Therefore, projects that do not exceed the bright-line threshold would have a nominal and less than cumulatively considerable impact on GHG emissions. South Coast AQMD recommends use of the 3,000 $MTCO_2e$ interim bright-line screening-level criterion for all project types (South Coast AQMD 2010b).

- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.[7]

[7] South Coast AQMD had identified an efficiency target for projects that exceed the bright-line threshold: a 2020 efficiency target of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan-

The South Coast AQMD Working Group identified an efficiency target for projects that exceed the screening threshold of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan-level projects (e.g., program-level projects such as general plans) for the year 2020.[8] The per capita efficiency targets were based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.[9]

The South Coast AQMD Working Group's bright-line screening-level criterion of 3,000 $MTCO_2e$ per year is used as the significance threshold for this Project. If the Project operation-phase emissions exceed this criterion, GHG emissions would be considered potentially significant without mitigation measures.

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

Chapter 4: Hazards and Shoreline/Bluff Development

The LUP identifies the following policies related to greenhouse gas emissions (City of Malibu 2002b):

Section 30253

New development shall:

3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.

Malibu Municipal Code

Chapter 17.41: Malibu Dark Sky

level projects (e.g., general plans). Service population is generally defined as the sum of residential and employment population of a project. The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.[7]

[8] It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

[9] South Coast AQMD took the 2020 statewide GHG reduction target for land use only GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.

The purpose of the Malibu Dark Sky Ordinance is to implement the goals of the general plan and protect and promote public health, safety, welfare, quality of life and the ability to view the night sky, by establishing regulations and a process for review of outdoor lighting in order to accomplish the following:

I. Promote lighting practices and systems which conserve energy, decrease dependence on fossil fuels and limit greenhouse gas emissions consistent with the California Global Warming Solutions Act and other applicable state and federal law. (Ord. 434 section 4, 2018)

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 5. Safety and Health Element

The City of Malibu General Plan Safety and Health Element creates a cohesive guide consisting of specific policy-oriented implementation measures. The intention is to reduce the potential for loss of life, injuries, damage to property, and social and economic dislocation resulting from major hazards throughout the community. The Safety and Health Element has the following goals, policies, and objectives related to greenhouse gas emissions:

S Goal 1: A community that is free from all avoidable risks to safety, health and welfare from natural and man-made hazards

- **S Objective 1.1:** Losses to life and property from natural and man-made hazards greatly reduced from historic levels.
  - **S Policy 1.1.1:** The City shall protect people and property from environmental hazards.
  - **S Policy 1.1.6:** The City shall reduce air pollution and improve Malibu's air quality.

To implement these policies, the City shall:

- **S Implementation Measure 12:** Provide South Coast Air Quality Management District regional wind patterns maps to homeowners, architects and contractors to help them plan development siting and design that minimizes fire hazards.
- **S Implementation Measure 30:** Work with regional agencies to implement the provisions of the South Coast Air Quality Management Plan (AQMP).
- **S Implementation Measure 31**: Promote public education and awareness of air quality.
- **S Implementation Measure 32**: Work with other agencies to reduce local sources of air pollution such as dust, smoke, and vehicle emissions.

- **S Implementation Measure 33:** Evaluate impacts on air quality in connection with development proposals.
- **S Implementation Measure 34:** Encourage residents and visitors to reduce the number of vehicle miles traveled while in the City.

5.7.1.3 EXISTING CONDITIONS

California's GHG Sources and Relative Contribution

In 2021, the statewide GHG emissions inventory was updated for 2000 to 2019 emissions using the GWPs in IPCC's AR4 (IPCC 2013). Based on these GWPs, California produced 418.2 $MMTCO_2e$ GHG emissions in 2019. California's transportation sector was the single largest generator of GHG emissions, producing 39.7 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent, and electric power generation made up 14.1 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (10.5 percent), agriculture and forestry (7.6 percent), high GWP (4.9 percent), and recycling and waste (2.1 percent) (CARB 2021).

Since the peak level in 2004, California's GHG emissions have generally followed a decreasing trend. In 2016, California statewide GHG emissions dropped below the AB 32 target for year 2020 of 431 $MMTCO_2e$ and have remained below this target since then. In 2019, emissions from routine GHG-emitting activities statewide were almost 13 $MMTCO_2e$ lower than the AB 32 target for year 2020. Per capita GHG emissions in California have dropped from a 2001 peak of 14.0 $MTCO_2e$ per person to 10.5 $MTCO_2e$ per person in 2019, a 25 percent decrease.

Transportation emissions continued to decline in 2019 statewide as they had done in 2018, with even more substantial reductions due to a significant increase in renewable diesel. Since 2008, California's electricity sector has followed an overall downward trend in emissions. In 2019, solar power generation continued its rapid growth since 2013. Emissions from high-GWP gases comprised 4.9 percent of California's emissions in 2019. This continues the increasing trend as the gases replace ozone-depleting substances being phased out under the 1987 Montreal Protocol. Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product) has declined 45 percent since the 2001 peak, though the state's gross domestic product grew 63 percent during this period (CARB 2021).

Project Site

The Project Site houses the Malibu Middle and High School (MMHS) campus. The existing middle school and high school operations currently generate GHG emissions from transportation (student and staff vehicle trips and bus use), area sources (consumer products and cleaning supplies), energy use, water use/wastewater generation, and solid waste disposal. Table 5.7-5 shows the existing area and energy use by the school.

Table 5.7-5 Existing GHG Emissions

Source	GHG Emissions ($MTCO_2e$)
Area	<1
Energy[1]	403
Total Emissions	**404**

Sources: CalEEMod Version 2020.4.
Note: NA: not applicable
[1] Because student capacity would not increase as a result of the Proposed Project, emissions from transportation, water use/wastewater generation, and solid waste disposal were not considered in the existing conditions model or the operational model.

5.7.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a Project would normally have a significant effect on the environment if the Project would:

GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

5.7.3 Environmental Impacts

5.7.3.1 METHODOLOGY

This GHG emissions evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG emissions impacts are likely in conjunction with the type and scale of development associated with the Proposed Project. Air pollutant emissions are calculated using CalEEMod, version 2020.4. CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater use (annual only). The following provides a summary of the assumptions used for the Proposed Project analysis. GHG emissions modeling datasheets are in Appendix D.

Construction Phase

Construction would entail demolition of existing structures and asphalt, site preparation, grading, off-site hauling of demolition debris and earthwork material, construction of the proposed structures and buildings, architectural coating, and asphalt paving on 40 acres of the approximately 52-acre Project Site over four construction phases. The Proposed Project is anticipated to be constructed over a period of up to 10 years, from June 2021 to May 2031. Construction GHG emissions are based on the preliminary information provided or verified by the District. Construction phasing and duration information as well as equipment mix are summarized in Section 5.2, *Air Quality*, in Tables 5.2-10, *Construction Phasing and Equipment (Phase 1)*, and 5.2-11, *Construction Phasing and Equipment (Phases 2 through 4)*. Annual average construction emissions were amortized

over 30 years and included in the emissions inventory to account for one-time GHG emissions from the construction phase of the Proposed Project.

Operational Phase

- **Transportation:** The primary source of mobile criteria air pollutant emissions is tailpipe exhaust emissions from the combustion of fuel (i.e., gasoline and diesel). For particulate matter, brake and tire wear and fugitive dust are created by vehicles traveling roadways. Because student capacity is not anticipated to increase, the Proposed Project would not result in additional trips.

- **Area Sources.** Area sources generated from use of consumer products and cleaning supplies are based on CalEEMod default emission rates and the assumed building square footages.

- **Energy:** GHG emissions from energy use (i.e., natural gas and electricity) are based on the CalEEMod default natural gas and electricity usage rates and the carbon intensity factor from the Southern California Edison 2020 Sustainability Report, which shows a CO_2 equivalence of 512 pounds per megawatt hour. For Project buildout conditions, the default electricity and natural gas rate in CalEEMod was adjusted to reflect 'blended' energy efficiency from the existing school buildings that would remain, which would use historical energy rates, and new structures that would achieve the 2019 Building and Energy Efficiency Standards.

- **Solid Waste Disposal:** Because student capacity is not anticipated to increase, the Proposed Project would not result in additional solid waste generation.

- **Water/Wastewater:** Because student capacity is not anticipated to increase, the Proposed Project would not result in additional water use or wastewater generation.

Life cycle emissions are not included in the GHG analysis, consistent with California Natural Resources Agency directives.[10] Black carbon emissions are not included in the GHG analysis because CARB does not include this short-lived climate pollutant in the state's AB 32/SB 32 inventory but treats it separately.[11]

5.7.3.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

[10] Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analysis was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the Proposed Project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials is also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

[11] Particulate matter emissions, which include black carbon, are analyzed in Section 5.2, *Air Quality*. Black carbon emissions have sharply declined due to efforts to reduce on-road and off-road vehicle emissions, especially diesel particulate matter. The State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years (CARB 2017a).

Impact 5.7-1: Implementation of the Proposed Project would not generate a net increase in GHG emissions, either directly or indirectly, that would have a significant impact on the environment. [Threshold GHG-1]

Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

Project-related construction and operation-phase GHG emissions are shown in Table 5.7-6, *Project-Related GHG Emissions*. Because student capacity, staffing, and other community-related uses on the campus would not increase or change after full buildout of the four phases, the Proposed Project would not result in an increase in emissions from mobile sources, solid waste generation, water use, or wastewater generation. In addition, because older buildings would be replaced and the Proposed Project would include energy saving features such as a PV system, the overall water use, wastewater and solid waste generation, and energy use would be further reduced. As shown in the tables, the Proposed Project would generate a net increase in GHG emissions from energy use (indirectly from purchased electricity use and directly through fuel consumed for building heating) and area sources (e.g., landscaping equipment used on-site, consumer products, coatings). Annual average construction emissions were amortized over 30 years and included in the emissions inventory to account for one-time GHG emissions from the construction of Phase 1, Phase 2, Phase 3, and two sets of Phase 4 activities of the Proposed Project. Overall, as shown in Table 5.7-6, construction and operation of the Proposed Project would not generate annual emissions that exceed the South Coast AQMD bright-line threshold of 3,000 MTCO2e per year (South Coast AQMD 2010b). Therefore, the Proposed Project's cumulative contribution to GHG emissions would be **less than significant**.

Table 5.7-6 Project-Related GHG Emissions

Source	Phase 1 Emissions	Full Buildout	Percentage of Total Emission
Area	<1	<1	<1%
Energy[1]	423	507	93%
Mobile[2]	0	0	0%
Solid Waste[2]	0	0	0%
Water[2]	0	0	0%
30-Year Amortized Construction[3]	41	197	24%
Total Emissions	463	705	100%
Existing Emissions	404	404	NA
Net Change in Emissions	59	301	NA
South Coast AQMD Bright Line Threshold		3,000 $MTCO_2e$	NA
Exceeds South Coast AQMD Bright Line Threshold		No	NA

Source: CalEEMod v. 2020.4.
Notes: Information in the table represents the total GHG emissions from area and energy emissions sources as well as amortized construction emissions following buildout of Phase 1 and full buildout (operation after second set of Phase 4 activities) of the Proposed Project.
NA = not applicable

[1] Energy use for existing buildings to remain is based on CalEEMod historical default rates for energy. For Project buildout conditions, the default electricity and natural gas rate in CalEEMod was adjusted to reflect 'blended' energy efficiency of the existing school buildings that would remain and the new structures that would achieve the 2019 Building and Energy Efficiency Standards (see Appendix D).
[2] Because student capacity is not anticipated to increase, the Proposed Project would not result in an increase in emissions from mobile sources, solid waste generation, water use, or wastewater generation.
[3] Construction emissions/sequestration are amortized over a 30-year period.

Impact 5.7-2: Implementation of the Proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. [Threshold GHG-2]

Applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan and SCAG's RTP/SCS. A consistency analysis with these plans is presented below.

CARB Scoping Plan

CARB's Scoping Plan is California's GHG reduction strategy to achieve the state's GHG emissions reduction target established by AB 32, which is to return to 1990 emission levels by year 2020. The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

Since adoption of the 2008 Scoping Plan, state agencies have adopted programs identified in the plan, and the legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard, California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the Corporate Average Fuel Economy standards, and other early action measures as necessary to ensure the state is on target to achieve the GHG emissions reduction goals of AB 32. New buildings are required to comply with the latest applicable Building Energy Efficiency Standards and CALGreen. On December 24, 2017, CARB adopted the Final 2017 Climate Change Scoping Plan Update to address the new 2030 interim target to achieve a 40 percent reduction below 1990 levels by 2030, established by SB 32 (CARB 2017b). While measures in the Scoping Plan apply to state agencies and not the Proposed Project, the Proposed Project's GHG emissions would be reduced by statewide compliance with measures that have been adopted since AB 32 and SB 32 were adopted. Therefore, the Proposed Project would not obstruct implementation of the CARB Scoping Plan, and impacts would be **less than significant**.

SCAG's Regional Transportation Plan / Sustainable Communities Strategy

SCAG adopted the 2020-2045 RTP/SCS (Connect SoCal) in September 2020 for the purpose of transportation conformity. Connect SoCal finds that land use strategies that focus on new housing and job growth in areas rich with destinations and mobility options would be consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in Connect SoCal is to plan for the southern California region to grow in more compact communities in transit priority areas and priority growth areas; provide neighborhoods with efficient and plentiful public transit; establish abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserve more of the region's remaining natural lands and farmlands (SCAG 2020). Connect SoCal's transportation projects help

more efficiently distribute population, housing, and employment growth, and forecast development is generally consistent with regional-level general plan data to promote active transportation and reduce GHG emissions. The projected regional development, when integrated with the proposed regional transportation network in Connect SoCal, would reduce per-capita GHG emissions related to vehicular travel and achieve the GHG reduction per capita targets for the SCAG region.

The Connect SoCal Plan does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency to governments and developers. The Proposed Project would provide new facilities for the existing and future students of MMHS. The Proposed Project would serve the local population within the nearby surrounding communities. However, because the Proposed Project would not result in an increase in student capacity, it would not generate an increase in VMT. Therefore, the Proposed Project would not interfere with SCAG's ability to implement the regional strategies in Connect SoCal, and impacts would be **less than significant**.

5.7.4 Mitigation Measures

No potentially significant impacts have been identified, and no mitigation measures are required.

5.7.5 Level of Significance After Mitigation

No mitigation measures have been identified, and impacts are less than significant.

5.7.6 Cumulative Impacts

Project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, Impact 5.7-1 is not a project-specific impact, but the Proposed Project's contribution to a cumulative impact. Implementation of the Proposed Project would not result in annual emissions that would exceed South Coast AQMD's bright-line threshold. Therefore, Project-related GHG emissions and their contribution to global climate change would not be cumulatively considerable, and GHG emissions impacts would be less than significant.

5.7.7 References

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5.8 HAZARDS AND HAZARDOUS MATERIALS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts of the Malibu Middle and High School Campus Specific Plan Project (Proposed Project) on human health and the environment due to exposure to hazardous materials or conditions associated with the Project Site, construction, and operations. Potential Project impacts and appropriate mitigation measures or standard conditions are included as necessary.

The analysis in this section is based, in part, on the following source(s):

- *Draft Phase I Environmental Site Assessment, Malibu Middle and High School Campus, 30215 Morning View Drive, Malibu, California*, LFR (an Arcadis Company), September 17, 2009
- *Final Preliminary Environmental Assessment Workplan, Juan Cabrillo Elementary School and Malibu Middle and High Schools, 30237 and 30215 Morning View Drive, Malibu, California*, Environ, May 23, 2014
- *Further Action Determination and Approval of Preliminary Environmental Assessment Equivalent Report, Juan Cabrillo Elementary School and the Malibu Middle and High School, 30237 and 30215 Morning View Drive, Malibu (Site Code: 301648)*, Department of Toxic Substances Control. October 14, 2014
- *Final Removal Action Completion Report Building G Area, Malibu High School, 30215 Morning View Drive, Malibu, California,* Environ, April 5, 2015
- *Preliminary Environmental Assessment Report Juan Cabrillo Elementary School and Malibu High School 30237 and 30215 Morning View Drive, Malibu, California,* Ramboll Environ, September 10, 2015
- Approval of the Final Preliminary Environmental Assessment Report for Malibu Middle/High School and Juan Cabrillo Elementary School, 30237 and 30215 Morning View Drive, Malibu, Los Angeles County, California (Site Code:301648), Department of Toxic Substances Control, November 23, 2015
- Removal Action Certification Form, Department of Toxic Substances Control, May 9, 2016
- Land Use Covenant and Agreement Environmental Restrictions County of Los Angeles, Assessor Parcel Number 4469-017-900, Malibu High/Middle School and Juan Cabrillo Elementary School (Site Code: 301648-11), Department of Toxic Substances Control, Recorded March 29, 2016
- *Results of Screening Level Soil Sampling Former Buildings a and B/C Locations Santa Monica Malibu Unified School District Malibu Middle and High School, 30215 Morning View Dr.*, Malibu California, Leighton Consulting, September 10, 2018
- *Hazardous Materials Survey Report Juan Cabrillo Elementary School – Demolition Project*, NV5-Alta Environmental, January 15, 2020
- *Hazardous Materials Abatement Specification Juan Cabrillo Elementary School – Demolition Project*, NV5-Alta Environmental, January 15, 2021

- *Draft Pre-Demolition PCB Removal/Remediation Plan, Juan Cabrillo Elementary School, 30237 Morning View Drive, Malibu, CA 90265*, NV5- Alta Environmental, January 15, 2021
- *PCB Source and Delineation Sampling Report Juan Cabrillo Elementary School 30237 Morning View Drive, Malibu, CA*, NV5- Alta Environmental, January 19, 2021
- *Draft Limited Phase II Environmental Site Assessment Juan Cabrillo Elementary School (JCES) Malibu, California,* Leighton Consulting, Inc., January 14, 2021

Complete copies of these technical reports are provided in Appendix I of this DEIR.

One comment letter from the County of Los Angeles Fire Department (LACoFD), Land Development Unit, was received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project. The comment regards the Proposed Project's compliance with all applicable codes and ordinances for construction, including emergency access to the Project Site and buildings. The comment also addresses the requirement to prepare a fuel modification plan due to the Project Site being in a designated fire hazard severity zone. Several comment letters were received from nearby residents regarding potential flooding due to the Woolsey Fire's effects on the hillsides. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.8.1 Environmental Setting

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; schools; and households (such as cleaners, solvents, paints, and pesticides). Accidental releases of hazardous materials can occur from a variety of causes, including traffic accidents, shipping accidents, and industrial/warehouse incidents.

5.8.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to hazardous materials that are applicable to the Proposed Project are summarized below.

Federal

United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is the primary federal agency that regulates hazardous materials and waste. In general, the EPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The agency is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. EPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing trash. Under the authority of the Resource Conservation and Recovery Act (RCRA) and in cooperation with state and tribal partners, the EPA's Waste

Management Division manages a hazardous waste program, an underground storage tank (UST) program, and a solid waste program that includes development of waste reduction strategies such as recycling.

Title 26, Part 1926 of the Code of Federal Regulations

Title 26, Part 1926 of the Code of Federal Regulations (CFR) establishes standards for general safety and health provisions, occupational health and environmental controls, demolition, toxic and hazardous substances, and other aspects of construction work. For example, it establishes standards for general safety and health, such as development and maintenance of an effective fire protection and prevention program at jobsites. It also establishes standards for occupational health and environmental controls, such as for exposure to lead and asbestos.

Resource Conservation and Recovery Act

Federal hazardous waste laws are generally promulgated under the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984. These laws provide for the "cradle to grave" regulation of hazardous wastes. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed. The Department of Toxic Substances Control (DTSC) is responsible for implementing the RCRA program as well as California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Unified Program, the California Environmental Protection Agency (CalEPA) has in turn delegated enforcement authority to Los Angeles County for state law regulating hazardous waste producers or generators in Malibu. A certified Unified Program agency (CUPA) is a local agency that has been certified by CalEPA to implement the local Unified Program. The CUPA can be a county, city, or joint powers authority. A participating agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A designated agency is a local agency that has not been certified by CalEPA to become a CUPA but is the responsible local agency that would implement the six Unified Programs until they are certified. Currently, there are 83 CUPAs in California.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act (EPCRA), also known as Title III of the Superfund Amendments and Reauthorization Act, was enacted in October 1986. This law requires any infrastructure at the state and local levels to plan for chemical emergencies. Reported information is made publicly available so that interested parties can be informed about potentially dangerous chemicals in their community. EPCRA Sections 301 through 312 are administered by the EPA's Office of Emergency Management. The EPA's Office of Information Analysis and Access implements the program in EPCRA Section 313. In California, Superfund Amendments and Reauthorization Act Title III is implemented through the California Accidental Release Prevention program. The State has delegated local oversight authority of the California Accidental Release Prevention program to Los Angeles County.

Hazardous Materials Transportation Act

The US Department of Transportation regulates hazardous materials transportation under CFR Title 49. State agencies that have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. The California State Fire Marshal's Office has oversight authority for hazardous materials liquid pipelines. The California Public Utilities Commission has oversight authority for natural gas pipelines. These agencies also govern permitting for hazardous materials transportation.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies and other resource providers, including the American Red Cross, that: 1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; 2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act as well as individual agency statutory authorities; and 3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a Presidential declaration of a major disaster or emergency. The Federal Response Plan is part of the National Response Framework, which was most recently updated in October 2019.

Robert T. Stafford Disaster Relief and Emergency Assistance Act

The Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 authorizes the federal government to aid in emergencies and disasters when state and local capabilities are exceeded. The Stafford Act constitutes statutory authority for most federal disaster response activities, especially as they pertain to the federal Emergency Management Agency and its programs.

National Response Framework

The 2016 National Response Framework, published by the Department of Homeland Security, is a guide to how the nation responds to all types of disasters and emergencies. The Framework describes specific authorities and best practices for managing incidents that range from serious local to large-scale terrorist attacks or catastrophic natural disasters. It also describes the principles, roles, responsibilities, and coordinating structures for responding to an incident as well as how response efforts integrate with those of the other mission areas.

Occupational Safety and Health Administration

The federal Occupational Safety and Health Act of 1970 authorizes each state (including California) to establish its own safety and health programs with the U.S. Department of Labor, Occupational Safety and Health Administration's (OSHA) approval. The California Department of Industrial Relations regulates implementation of worker health and safety in California. Cal/OSHA enforcement units conduct on-site evaluations and issue notices of violation to enforce necessary improvements to health and safety practices. California standards for workers dealing with hazardous materials are in Title 8 of the California Code of Regulations (CCR); they include practices for all industries (General Industrial Safety Orders) and specific

practices for construction and other industries. Workers at hazardous waste sites (or working with hazardous wastes that might be encountered during excavation of contaminated soil) must receive specialized training and medical supervision according to the Hazardous Waste Operations and Emergency Response regulations.

OSHA Regulation 29 CFR Standard 1926.62 regulates the demolition, renovation, or construction of buildings involving lead materials. Federal, state, and local requirements also govern the removal of asbestos or suspected asbestos-containing materials (ACM), including the demolition of structures where asbestos is present. All friable (crushable by hand) ACMs, or nonfriable ACMs subject to damage, must be abated following all applicable regulations and prior to demolition.

State

California Environmental Protection Agency

CalEPA was created in 1991 by Governor's Executive Order. Under the CalEPA umbrella are six boards and departments—Air Resources Board, Department of Resources Recycling and Recovery, Department of Pesticides Regulations, DTSC, Office of Environmental Health Hazard Assessment, and State Water Resources Control Board—to create a cabinet-level voice for the protection of human health and the environment and to ensure the coordinated deployment of state resources. CalEPA oversees the unified hazardous waste and hazardous materials management regulatory program.

California Department of Toxic Substances Control

DTSC is a department of CalEPA, which authorizes DTSC to administer the RCRA program in California to protect people from exposure to hazardous wastes. The department regulates hazardous waste, cleans up existing contamination, and implements regulations to control and reduce the hazardous waste produced in California, primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California Health and Safety Code [HSC], Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR Divisions 4 and 4.5). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow state and federal requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

DTSC's Brownfields Restoration and School Evaluation Branch is responsible for assessing, investigating, and cleaning up proposed school sites and existing school sites. The oversight is to ensure that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school. All proposed school sites and existing school sites that will receive State funding for acquisition or construction are required to go through an environmental review and cleanup process under DTSC's oversight.

California Occupational Health and Safety Administration

Occupational safety standards in federal and state laws minimize worker safety risks from both physical and chemical hazards in the workplace. Cal/OSHA is responsible for developing and enforcing workplace safety standards and ensuring worker safety in the handling and use of hazardous materials.

California Building Code

The State of California provides a minimum standard for building design through the California Building Code (CBC), which is in 24 CCR Part 2. The 2019 CBC is based on the 2018 International Building Code but has been modified for California conditions. It is updated every three years, most recently in July 2019 with an effective date of January 1, 2020. The CBC, as adopted by local cities or counties, may be further modified based on local conditions. Typical fire safety requirements of the CBC include the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

California Department of Forestry and Fire Protection

California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal (OSFM) supports CAL FIRE's mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education. OSFM provides for fire prevention by enforcing fire-related laws in state-owned or -operated buildings; investigating arson fires; licensing those who inspect and service fire protection systems; approving fireworks for use in California; regulating the use of chemical flame retardants; evaluating building materials against fire safety standards; regulating hazardous liquid pipelines; and tracking incident statistics for local and state government emergency response agencies. The California Fire Plan is the state's road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The California Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and CAL FIRE.

California Fire Code

The California Fire Code (CFC) is in 24 CCR Part 9. It is also updated every three years, most recently in 2019 with an effective date of January 1, 2020. The 2019 CFC is based on the 2018 International Fire Code but has been modified for California conditions. The CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Similar to the CBC, the CFC is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions.

California Governor's Office of Emergency Services

Through AB 38, the Governor's Office established the California Emergency Management Agency on January 1, 2009. The agency merged the duties, powers, purposes, and responsibilities of the former Governor's Office of Emergency Services with those of the Governor's Office of Homeland Security. CalEMA was responsible for the coordination of overall state agency response to major disasters in support of local government, for ensuring the state's readiness to respond to and recover from all hazards—natural, man-made, emergencies, and disasters—and for assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts. On July 1, 2013, Governor Edmund G. Brown Jr.'s Reorganization Plan #2 eliminated

CalEMA and restored it to the Governor's Office as Cal OES, merging it with the Office of Public Safety Communications.

Hazardous Materials Management Act

A hazardous material is any substance that possesses qualities or characteristics that could produce physical damage to the environment and/or cause deleterious effects upon human health (22 CCR). The Hazardous Materials Management Act (22 CCR) requires that businesses and public entities handling or storing certain amounts of hazardous materials prepare a hazardous materials business plan that includes an inventory of hazardous materials stored on-site (above specified quantities), an emergency response plan, and an employee training program. Businesses that use, store, or handle 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of compressed gas at standard temperature and pressure require a hazardous materials business plan. Plans must be prepared prior to facility operation and are reviewed/updated biennially (or within 30 days of a change).

California Accidental Release Prevention Program

California Accidental Release Prevention Program includes the Federal Accidental Release Prevention Program with certain additions specific to California and pursuant to HSC Article 2, Chapter 6.95. The purpose of this program is to prevent the accidental release of regulated substances. Businesses using regulated substances exceeding a threshold quantity are evaluated under this program to determine the potential for and impacts of accidental releases. Depending on the potential hazards, business owners may be required to develop and submit a risk management plan.

Regulations for Hazardous Materials in Structures

Asbestos is regulated as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of the federal Occupational Safety and Health Administration. Cal/OSHA considers asbestos-containing building material a hazardous substance when a bulk sample contains more than 0.1 percent asbestos by weight and requires a qualified contractor licensed to handle asbestos. Any activity that involves cutting, grinding, or drilling during building renovation or demolition or relocation of underground utilities could release friable asbestos fibers unless proper precautions are taken.

Lead is regulated as a hazardous material, and inorganic lead is regulated as a toxic air contaminant. Lead-containing paints, according to Cal/OSHA, are defined as paints reported with any detectable levels of lead by paint chip analysis (8 CCR § 1532.1(d)). When disturbed for construction purposes, these surfaces are subject to Cal/OSHA exposure assessment requirements.

Several regulations and guidelines pertain to abatement of and protection from exposure to ACM and lead-based paint:

- Lead-based paint
  - 8 CCR Subchapter 4, Construction Safety Orders, § 1532.1
  - 29 CFR 1926, Subpart D
- Asbestos

- 8 CCR Subchapter 4, section 1529
- 29 CFR 1926, Subpart Z
- 40 CFR 61, Subpart M

These rules and regulations provide exposure limits, exposure monitoring, respiratory protection, and good working practice for workers exposed to lead and ACM. In California, ACM and lead-based-paint abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services. HSC §§ 17920.10 and 105255 require lead to be contained during demolition activities.

Polychlorinated biphenyls (PCBs) were commonly used in the small capacitor in fluorescent light ballasts through 1979. PCB regulations are included in 40 CFR 761, which requires the material to be incinerated. The entire lighting fixture does not need special handling and disposal as long as the ballast (electrical box) is not leaking. The nonleaking ballasts can be removed and recycled or disposed of properly.

Hazardous Waste Control

HSC, Division 20, Chapter 6.5, and 22 CCR, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste, address how hazardous waste must be handled, stored, transported, treated, and disposed. They provide an effective process for hazardous waste management planning at the local level to ensure adequate handling, storing, transporting, treating, and disposing of hazardous materials.

Regional

Los Angeles County Fire Department

LACoFD provides fire protection and emergency services to the City of Malibu (Malibu 2020). In addition to fire protection, the LACoFD provides hazardous materials response to address chemical, biological, radiological, nuclear, and explosive threats (LACoFD 2020a). LACoFD's Health Hazardous Materials Division is the CUPA that implements the following programs consistent with state and federal regulations:

- Hazardous Waste Generator Program
- Hazardous Materials Release Response Plans and Inventory Program
- California Accidental Release Prevention Program (CalARP)
- Aboveground Storage Tank Program
- Underground Storage Tank Program (LACoFD 2020b)

Federal and state statutes as well as local laws and programs regulate the use, storage, and transportation of hazardous materials and hazardous waste. These regulations can reduce the danger hazardous substances may pose to people under normal daily circumstances and as a result of emergencies and disasters.

Asbestos Emissions from Demolition/Renovation Activities

South Coast Air Quality Management District (South Coast AQMD) Rule 1403, Asbestos Emissions from Demolition/Renovation Activities, provides requirements for limiting asbestos emissions from building demolition and renovation activities.

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

The LUP identifies the following policies related to air quality (City of Malibu 2002b):

Chapter 4 - Hazards and Shoreline/Bluff Development

- **LUP Policy 4.14** New development shall be prohibited on property or in areas where such development would present an extraordinary risk to life and property due to an existing or demonstrated potential public health and safety hazard.
- **LUP Policy 4.45** New development shall minimize risks to life and property from fire hazard through:
    a. Assessing site-specific characteristics such as topography, slope, vegetation type, wind patterns etc.
    b. Siting and designing development to avoid hazardous locations
    c. Incorporation of fuel modification and brush clearance techniques in accordance with applicable fire safety requirements and carried out in a manner which reduces impacts to environmentally sensitive habitat to the maximum feasible extent
    d. Use of appropriate building materials and design features to insure the minimum amount of required fuel modification
    e. Use of fire-retardant, native plant species in landscaping. (Resolution No. 07-04 [LCPA No. 05-001])
- **LUP Policy 4.46** New development within Environmentally Sensitive Habitat Areas and habitat buffers shall be sized, sited, and designed to minimize the impacts of fuel modification and brush clearance activities on habitat and neighboring property.

- **LUP Policy 4.47** Development adjacent to parkland shall be sited and designed to allow all required fire preventive brush clearance to be located outside park boundaries, unless no alternative feasible building site exists on the project site. A natural vegetation buffer of sufficient size should be maintained between the necessary fuel modification area and the public parkland, where feasible.

- **LUP Policy 4.48** When brush clearance is required for fire safety, brushing techniques that minimize impacts to native vegetation, ESHA and that minimize erosion, runoff, and sedimentation shall be utilized.

- **LUP Policy 4.49** Applications for new development, which require fuel modification, shall include a fuel modification plan for the project, prepared by a landscape architect or resource specialist that incorporates measures to minimize removal of native vegetation and to minimize impacts to ESHA, while providing for fire safety, consistent with the requirements of the applicable fire safety regulations. Such plans shall be reviewed and approved by the Forestry Division.

- **LUP Policy 4.50** New development shall provide for emergency vehicle access and fire-flow water supply in accordance with applicable fire safety regulations.

- **LUP Policy 4.51** All new development shall demonstrate the availability of an adequate water supply for fire protection, as required by applicable fire safety regulations.

- **LUP Policy 4.52** Where applicable, property owners shall comply with applicable fire safety regulations for management of combustible vegetative materials (controlled bums) in fire hazardous areas.

- **LUP Policy 4.53** The City shall coordinate with county, state, and National Park agencies to develop a closure policy for public recreation areas during periods of extreme fire hazard.

- **LUP Policy 4.54** Should the LACoFD policies regarding fuel management and fire protection conflict with the policies and provisions of the Malibu LCP, particularly those relating to the protection of ESHA, personnel from the Fire Department and the City of Malibu shall meet and agree on measures to balance the need for fire protection for structures with the need to protect environmental resources.

Local Coastal Program's Local Implementation Plan:

Chapter 9 - Hazards

Chapter 9 of the Local Implementation Plan is intended to ensure that new development minimizes the risks to life and property in areas of high geologic, flood, and fire hazards. Section 9.4 of this chapter identifies provisions intended to reduce risks to life and property from fire hazards and ensure adequate emergency access.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 5. Safety and Health Element

The City of Malibu General Plan's Safety and Health Element creates a cohesive guide consisting of specific policy-oriented implementation measures. The intention is to reduce the potential for loss of life, injuries, damage to property, and social and economic dislocation resulting from major hazards throughout the community. The Safety and Health Element has the following goals, policies, and objectives related to hazards and hazardous materials:

S Goal 1 A community that is free from all avoidable risks to safety, health, and welfare from natural and man-made hazards.

- **S Objective 1.1** Losses to life and property from natural and man-made hazards greatly reduced from historic levels.
  - **S Policy 1.1.1** The City shall protect people and property from environmental hazards.
  - **S Policy 1.1.3** The City shall minimize the risk of loss from fire.
  - **S Policy 1.1.3** The City shall reduce the amount of nonessential toxic and hazardous substances.
  - **S Policy 1.1.4** The City shall promote use of alternatives to hazardous substances.
- **S Objective 1.3** An ongoing, permanent program for cooperating with other jurisdictions, agencies, and public and private organization to help meet the goals of the Safety and Health Element.
  - **S Policy 1.3.1** The City shall strive to ensure uses within Malibu's Planning Area are consistent with the safety, health, and welfare of the Malibu community.

S Goal 2 A community prepared for effective response to emergencies and recovery when they occur.

- **S Objective 2.1** A comprehensive plan for response to all levels of emergency situation.
  - **S Policy 2.1.1** The City shall cooperate to achieve efficient and prompt response by local agencies to those emergencies which require no outside help.
  - **S Policy 2.1.2** The City shall coordinate efficient utilization of emergency assistance provided by neighboring communities and county agency under mutual-aid response.
  - **S Policy 2.1.3** The City shall develop a plan to ensure that in situations of extreme emergency the community is prepared to survive until outside assistance arrives.
- **S Objective 2.2** A comprehensive plan for recovery from all levels of emergency situations is developed and updated as needed.
  - **S Policy 2.1.1** The City shall facilitate timely recovery from all disaster.

5.8.1.2 EXISTING CONDITIONS

On-Site and Adjacent Uses

The Proposed Project is on Santa Monica–Malibu Unified School District (SMMUSD or District) property at 30215 Morning View Drive in the City of Malibu, Los Angeles County, California. The SMMUSD property is approximately 87 acres and includes Malibu Middle and High School (MMHS), Malibu Equestrian Park, and Juan Cabrillo Elementary School (JCES). The Proposed Project would include 52.03 acres of previously developed existing MMHS and JCES campus and one component of the Malibu Equestrian Park.

The Project Site is approximately 0.25-mile northeast of the Pacific Coast Highway and Zuma Beach; it is bounded by Merritt Drive to the east, Via Cabrillo Street to the west, and Morning View Drive to the south. Single-family homes border the Project Site to the north.

Site History

According to the environmental site assessment (ESA) and based on a review of historical topographic maps, city directories, and aerial photographs, the Proposed Project site and vicinity consisted of undeveloped land from at least as early as 1903 until 1947. Scattered residential development in the site vicinity was apparent in 1951. The subject property was depicted as mostly undeveloped in a 1952 aerial photograph, and improved with school buildings and residences in the vicinity in the 1965 aerial photograph. The 1952 aerial photograph depicted agricultural row crops in the northern portion of the property. MMHS was constructed as Malibu Park Junior High School beginning in 1963 and completed in 1968. Further development continued during the 1970s and the 1990s. Additional school buildings are depicted in the 1976 aerial photograph. The Proposed Project area was all developed in its current configurations by 1990, and MMHS was first listed at the current address in the 1991 city directory.

Phase I Environmental Site Assessment

A Phase I ESA provides information concerning the past and existing conditions on a site; it reviews known and observable conditions to allow evaluation of the site's environmental conditions. These conditions may include an existing release, past release, or threat of release of hazardous substances into structures, soil, groundwater, or surface water of the site.

The ESA evaluation for the Proposed Project was conducted by LRF Inc., and its findings are in the ESA report dated October 1, 2009. The Project Site's ESA included the following activities and components:

- Reconnaissance survey of the Proposed Project site to make visual observations of existing site conditions and activities, and a drive-by survey of the area within a quarter mile of the site to observe types of general land use.

- Review of the federal, state, and local database list search—provided by Environmental Data Resources (EDR)—of known or potentially hazardous waste sites or landfills, and sites currently under investigation for environmental violations.

- Inquiry of the appropriate regulatory agencies regarding environmental permits, violations or incidents, and/or the status of enforcement actions at the Project Site.
- Research of historical aerial photographs of the site and vicinity for evidence of previous site activities and development that suggest the potential presence of hazardous substances at the Project Site.
- Research of archival US Geological Survey topographic maps of the site and the area within half a mile of the Project Site for information regarding historical land uses potentially involving the manufacture, generation, use, storage, and/or disposal of hazardous substances.
- Findings and opinions
- Conclusion and recommendations

Regulatory agency database information was obtained from the radius map report compiled by EDR. The radius map report maps and lists properties in federal and state government environmental databases whose existing conditions or status have the potential to impact the Project Site. The direction of groundwater flow in the site vicinity is inferred to be to the south based on groundwater monitoring on the Project Site from May 1995 to July 1996.

There were four listings at the Project Site for the current tenant:

- Malibu High is listed in the Facility Index System (FINDS) database, which is a pointer to other databases with more complete information and does not include any technical information.
- Santa Monica Malibu Unified School District is listed on the Los Angeles County Hazardous Materials System (HMS) database. The facility identification number is 012962-013216 and the status is listed as "removed."
- SMMUSD/Malibu Hight School is listed twice in the HAZNET database The first listing is related to the disposal of liquids containing mercury at concentrations less than 20 milligrams per liter via a transfer station. The other listing (under the name Malibu High School) is related to the disposal of asbestos-containing waste at an appropriate landfill facility.
- Malibu High School is listed in the LUST, LUST REG 4, Cortese, and SWEEPS UST databases for a 1993 hydrocarbon release from a leaking UST, or LUST. The current status of the listings is "Case Closed"; see Section 4.3 for more information regarding former USTs on the Project Site.

A reconnaissance of the Project Site was performed as part of the ESA on June 23, 2009, by LFR representative Aaron Hook. The site reconnaissance included a visual inspection of the Project Site to assist in assessing the presence or likely presence of hazardous substances or petroleum hydrocarbons under conditions that indicate an existing release, a past release, or threat of release into structures, soil, groundwater, or surface water at the Project Site. No evidence of specific on-site releases was identified. However, numerous site and school features from past activities were identified that have the potential to impact the Project Site.

The Phase I ESA identified the following recognized environmental conditions (REC):

- **REC-1:** Current and former structures constructed prior to the ban of lead-based paint and organochlorine pesticides used as termiticides. Buildings were sampled in identified redevelopment areas of the campus.
- **REC-2:** Residual volatile hydrocarbons in the vicinity of the former USTs upgradient from some of the redevelopment areas on campus.
- **REC-3:** The potential that hazardous materials from the laboratories, woodshop, art studio, and photography darkroom were released to the septic system within the redevelopment area and adjacent to the development area.
- **REC-4:** The potential for contamination from the bus-washing station in the bus barn. An oily sheen was observed in floor drains during the site inspection.
- **REC-5:** The potential for PCBs to be present in soil from the transformers located throughout the campus.

The Phase I ESA identified five RECs on-site, including lead-based paint and potential organochlorine pesticides due to the age of the buildings; residual volatile hydrocarbons in the location of two former 10,000-gallon diesel underground storage tanks that were removed in 1992 and closed under the oversight of the Regional Water Quality Control Board; the potential that hazardous materials used in the chemistry laboratories, art studios, woodshop, and photography darkroom may have drained to the septic systems; bus-washing station with floor drains in the bus barn; and transformers that may have PCBs.

2009 Preliminary Environmental Assessment

A preliminary environmental assessment (PEA) was prepared by Arcadis in October 2009 on behalf of the District but was not submitted to DTSC. Three of the RECs identified in the 2009 Phase I were sampled:

- **REC-1:** Current and former structures constructed prior to the ban of lead-based paint and organochlorine pesticides used as termiticides. Buildings were sampled in identified redevelopment areas of the campus.
- **REC-2:** Residual volatile hydrocarbons in the vicinity of the former USTs upgradient from some of the redevelopment areas on campus.
- **REC-3:** The potential for hazardous materials from the laboratories, woodshop, art studio, and photography darkroom being released to the septic system in the redevelopment area and adjacent to the development area.

To assess REC-1, soil samples were collected from 18 locations and analyzed for lead, organochlorine pesticides, and PCBs. Lead was not reported in any of the soil samples above the DTSC health-based screening level of 80 milligrams per kilogram (mg/kg). Chlordane, an organochlorine pesticide, exceeded the health-based screening level used at the time in 2 samples. One PCB (arocolor-1254) exceeded the health-based screening level in 11 out of 18 initial soil samples. Step-out soil samples were analyzed from an additional 8 locations for

Aroclor-1254 and 3 locations for chlordane. Aroclor-1254 exceeded screening levels at 5 locations. Chlordane was either not detected or not elevated in the step-out samples.

To assess REC-2, six soil gas probes were installed and analyzed for volatile organic compounds (VOC). Benzene and toluene were reported in the samples collected in the vicinity of the former USTs. No step-out samples were collected.

For REC-3, septic system, soil, and soil gas samples were collected to evaluate seepage pits. Nine soil borings were advanced. Soil samples were analyzed for metals and pH. Arsenic, cadmium, and lead were elevated over the background concentrations in some of the soil samples. Four soil gas probes were advanced in the vicinity of the leach pits, with samples collected at 5 and 10 feet. Benzene and toluene were detected at two of the locations.

A human health screening risk evaluation calculated an unacceptable health risk of 2 x 10-5 using maximum detected concentrations of all chemicals detected across the site. The 2009 PEA recommended excavating PCB- and chlordane-impacted soil at the site to reduce the estimated risk.

In 2010, approximately 1,179 cubic yards of PCB and pesticide-impacted soil were removed from nine areas and classified as nonhazardous. Soil was excavated two to four feet below ground surface in the areas identified as being elevated above health-based screening levels.

2015 PEA

Another PEA was prepared for the Project Site by Environ in 2015 and submitted to the DTSC for review on September 10, 2015, and approved by the DTSC on November 23, 2015. The PEA evaluated the soil, soil vapor, and groundwater based on planned new construction. Based on previous reports and site visits, 18 areas of interest were identified at the Project Site. A thorough search was implemented to evaluate if it had been used for military purposes. Based on a review of historical topographic maps and aerial photographs, the former defense sites database, the World War II Museum in Oxnard, and historical documentation in the Malibu Library, no defense use was identified; the closest military usage in the area was about three miles to the southeast.

A PEA workplan was developed in 2014, approved by the DTSC, and implemented to investigate the areas of interest. Based on the initial results, three areas needed further evaluation, including: 1) Buildings constructed prior to 1985; 2) open areas around and between older buildings; and 3) the agricultural area known as the Cornucopia area north of the bus barn. Step-out soil samples were collected in the three areas. A focused response action in a planter area east of Building G at the Project Site involved the preparation of a removal action workplan to remove soil impacted with PCBs. Approximately 15 cubic yards of PCB-impacted soil was excavated in December 2014 under the oversight of the DTSC and was disposed of as nonhazardous waste. The removal was documented in a removal action completion report by Environ dated February 27, 2015, that was approved by the DTSC for unrestricted land use on March 26, 2015. The Removal Action Certification Form dated May 9, 2016, certifies by the DTSC that all appropriate response actions have been implemented.

There are 11 groundwater monitoring wells on-site, and nine of the wells were sampled as part of the PEA. Two of the wells were dry. Additionally, two grab groundwater samples were collected near the former UST area.

In summary, at the former Juan Cabrillo Elementary School, 62 soil borings were advanced, five soil gas borings were installed, and groundwater was collected at two monitoring wells. At Malibu High School, 440 soil borings were advanced, 21 soil gas borings were installed, and groundwater was sampled at four monitoring wells and two grab groundwater samples.

At Juan Cabrillo Elementary School the PEA found:

- All samples were nondetect for herbicides and semi volatile organic compounds (SVOC).
- Five organochlorine pesticides—4,4'-DDE, 4,4'-DDT, chlordane, dieldrin, and heptachlor epoxide—were detected at concentrations above their laboratory reporting limits; however, 4,4'-DDE, 4,4'-DDT, dieldrin, and heptachlor epoxide were below their DTSC residential screening levels. Chlordane was reported above its screening level in one sample collected near buildings constructed prior to 1981, but nearby samples were below levels of concern, indicating chlordane in this area was not a concern.
- 99 percent of the soil samples analyzed for PCBs were nondetect, and one soil sample, collected in a planter box, contained arocolor-1260 at a concentration slightly exceeding the residential screening levels.
- All samples that were analyzed for total petroleum hydrocarbons were nondetect or below health-based residential screening levels.
- Metals were slightly elevated in two soil samples for cadmium, and one sample for lead. Based on the low exceedance and infrequent detection above background levels, metals were not considered elevated.
- VOCs in soil gas were not detected.
- Groundwater was not impacted by VOCs, SVOCs, and total petroleum hydrocarbons. or metals. Metals were detected below maximum contaminant levels.

Soil, soil vapor, and groundwater results indicated that they were not environmental concerns at the Juan Cabrillo Elementary School.

At Malibu High School the PEA found:

- All soil samples were nondetect for herbicides.
- All soil samples analyzed for organochlorine pesticides, SVOCs, and total petroleum hydrocarbons were either nondetect or had concentrations below DTSC or EPA residential screening levels.
- 96 percent of the soil samples analyzed for PCBs were nondetect, and five soil samples contained arocolor-1254 at a concentration exceeding the residential screening levels in samples collected near Building G. The elevated area was approximately 7 feet by 38 feet and extended to approximately 1.5 feet underground.

Under oversight of the DTSC a removal action was implemented in this area and received an unrestricted land use approval.

- Metals were slightly elevated for lead in one sample, cadmium in three samples, and arsenic in six samples at depth. Step-out soil samples were collected to delineate the area of elevated lead (AOI-5 buildings constructed prior to 1981) and arsenic (AOI-15 Cornucopia area). Step-out samples showed that the exceedance of lead was localized, cadmium exceedances were at depths greater than 19 feet where exposure would not occur, and step-out samples for arsenic in the Cornucopia area were within naturally occurring background concentrations for Southern California. Based on the low exceedance, the depth where the exceedances were found, and the infrequent detection above background levels, metals were not considered elevated.

- VOCs in soil gas were detected adjacent to the former USTs. Benzene was detected above residential screening levels in the three soil gas samples collected in this area. Other petroleum-related VOCs detected in soil gas at concentrations above residential screening levels in this area include ethylbenzene, naphthalene, 1,2,4 trimethylbenzene, and xylenes. The bus barn area is capped with asphalt, is only used to stage school buses, and is not used by student and faculty, so potential exposure is limited. Benzene was also detected in soil gas in samples collected in AOI-12 Septic Systems 4 and 6. The benzene concentrations were slightly above the residential screening levels in two samples. Because the soil gas concentrations were low outside any building footprint and were not detected in other vapor probes in the area, it was determined not to be a significant risk

- Two grab groundwater samples were collected in the vicinity of the former USTs, and one sample had a low reported concentration of the VOC toluene. Total petroleum hydrocarbons were reported at a concentration slightly above reporting limits in groundwater.

- In the monitoring well groundwater samples, which were analyzed for VOCs, SVOCs, TPH, and metals, only metals were detected. Reported concentrations of metals were below maximum contaminant levels for drinking water.

A human health risk assessment determined that an approximately 0.66-acre area of the bus barn area posed an unacceptable human health risk in a residential land use risk scenario but was appropriate for school-based use. The remainder of the Project Site did not have an unacceptable risk, and it was determined that no further action was needed. The 2015 PEA concluded that there are no current environmental concerns, and no significant risks due to exposure to chemicals in soil and soil vapor are expected for the current or future students and staff. If land use in the bus barn area should ever change to residential, soil vapor may need to be reevaluated at that time.

For the bus barn area, a land use covenant was established to prevent residential use of this 0.66-acre area. The LUC was recorded on March 29, 2016, and prohibits any residence including any mobile home or factory-built housing on the area for residential human habitation. If any soil disturbance is planned, a soil management plan is needed that shall be approved by the DTSC, including drilling for water, oil, or gas; extraction or removal of groundwater; and any activity that affects the effectiveness or the access to the area without prior DTSC

approval. Any soil that is brought to the area shall also be managed in accordance with all applicable provisions of state and federal law. The DTSC has the right to access the area for inspection, investigation, and monitoring needed to protect human health. An Operation and Maintenance plan is being implemented by the District that includes an annual inspection of the area verifying compliance with the LUC. Annual inspections are occurring for the area that confirm that land use has not changed and that soil disturbance has not occurred.

PCB Assessment

PCBs were found in other building materials, including mastic, caulking, shellac, etc. at the MHS and JCES campuses, and the PCBs were found to leach into adjoining building materials. PCBs have been removed or encapsulated where they exceeded the TSCA limits of 50 ppm. Buildings on both MHS and JCES campuses were assessed based on year of construction and if the buildings would be demolished, renovated and later demolished, or renovated and remain in use. Buildings that were constructed after 1981 did not use materials containing PCBs. Table 5.8-1, *PCB Assessment, Malibu High School*, lists the buildings at the high school campus, the year constructed, and the renovation status.

Table 5.8-1 PCB Assessment, Malibu High School

Building	Year Constructed	Known Past or Planned Renovation
A (800, Great White Shark)	1963	Demolished in 2017; Replaced with a new Classroom/Library/Administration Building. Opening 2021
B/C (900, Whale Shark)	1963	Demolished in 2017; Replaced with a new Classroom/Library/Administration Building. Opening 2021
D (100 & 200, Mako Shark)	1963	Demolished Summer 2020
E (000, Blue Shark)	1963	Demolished in 2017; Replaced with a new 12-classroom building, Opened 8/19
F (300, Thresher Shark)	1963	Some windows & doors replaced and/or retrofitted in 1993; Replaced/Retrofitted all pre-1979 windows & doors in 2017; Flooring in orchestra room abated and encapsulated summer 2021; Remain in Use until after Phase 3 construction, estimated 2028
G (500, Angel Shark)	1963	Some windows & doors replaced and/or retrofitted in 1993; Replaced/Retrofitted all pre-1979 windows & exterior doors in 2017; Demolished in 2021
H (Cafeteria/Auditorium)	1963	Building renovated into Theater in 1993; PCBs were abated in vents with exceedance and encapsulate substrate in 2020; Remain in Use until Phase 3A construction, estimated 2030
I (400, Leopard Shark)	1963	Some windows & doors replaced and/or retrofitted in 1993; Replaced/Retrofitted all pre-1979 windows & doors in 2017; Plan to upgrade and install HVAC by 2020; Flooring in dark room abated for PCBs and encapsulated summer 2021; Remain in Use until after Phase 3 construction, estimated 2028
J (700, Old Gymnasium)	1963	Replaced or retrofitted all pre-1979 windows & doors in 2020; Plan to upgrade and install HVAC by 2021; Remain in Use until after Phase 3 construction, estimated 2028
K (600, Hammerhead Shark)	2002	None
Relocatable Next to Building G (500, Angel Shark)	1998	Renovated into temporary offices in 2017; to be repurposed for Special Ed in 2020-21; Plan to be demolished in 2024
New Gymnasium	2002	None

Table 5.8-1 PCB Assessment, Malibu High School

Building	Year Constructed	Known Past or Planned Renovation
Malibu Boys and Girls Teen Center[a]	2000	None
Swimming Pool and Equipment Building	1975	Building was repaired in 1994
City of Malibu Office by the Pool[a]	1997	None

Table 5.8-2, *PCB Assessment, Juan Cabrillo Elementary School*, lists the buildings, years constructed, and renovation status at Juan Cabrillo Elementary School.

Table 5.8-2 PCB Assessment, Juan Cabrillo Elementary School

Building	Year Constructed	Known Past or Planned Renovation
A - Admin	1958	Windows & some doors retrofitted in 1993; Other doors replaced in 2016; Plan to demolish in 2021
B - Rooms 1-5	1955	Windows & some doors retrofitted in 1993; Other doors replaced in 2016; Plan to demolish in 2021
C - Rooms 6-11	1957	Windows & some doors retrofitted in 1993; Other doors replaced in 2016; Plan to demolish in 2021
D - Rooms 12-15	1958	Windows & some doors retrofitted in 1993; Other doors replaced in 2016; Plan to demolish in 2021
E - Library	1965	Windows & some doors retrofitted in 1993; Other doors replaced in 2016; Plan to demolish in 2021
F - Rooms 16-23	1961/1965	All pre-1979 windows, that had not been previously retrofitted, were replaced in 2016; Some pre-1979 doors/frames were replaced in 2016; all PCB exceedances removed and abated. Plan to demolish in 2021
G - MPR	1995	Plan to demolish in 2021
Building at Rear of Playground (Rooms 24&25)	1999	Plan to demolish in 2021
Building Next to Kindergarten Yard (Cottages- Buildings H&I)	1992	Plan to demolish in 2021

Based on the 2015 Environ PEA, additional soil samples were collected near the footprint of the former Buildings A and B/C at the high school—which were demolished following the approval of the PEA. Soil samples were collected to assess whether PCBs were present in soil to confirm postdemolition conditions and to prepare for development. Sixty-seven soil samples were collected from 20 locations and analyzed for PCBs by EPA Method 8082. At two sample locations that had detections of PCBs at 5 feet bgs, additional samples

were collected from 8 feet bgs. PCBs were detected in 22 of the samples above laboratory reporting limits, and none of the samples analyzed exceeded the residential screening level (Leighton 2018).

Updated Records Search

Five environmental databases were searched in 2021 for hazardous material sites on or within 0.25 mile of the Project Site:

- GeoTracker. State Water Resources Control Board (SWRCB 2021)
- EnviroStor. Department of Toxic Substances and Controls (DTSC 2021)
- EJScreen. US Environmental Protection Agency (USEPA 2021a)
- EnviroMapper. US Environmental Protection Agency (USEPA 2021b)
- Solid Waste Information System (SWIS). California Department of Resources, Recycling and Recovery (CalRecycle 2021)

There were no hazardous waste sites on or within 0.25 mile of the Project Site listed on EJScreen, EnviroMapper, and SWIS. The Project Site was listed as Active WDR on GeoTracker. The site was also listed as voluntary cleanup with Certified O&M Land Use Restriction on EnviroStor, as discussed under the 2015 PEA.

California Department of Education Checklist

Based on the results of the Phase I ESA report and per California Department of Education requirements related to findings:

- The Project Site is not a current or former hazardous waste disposal or solid waste disposal site.

- The Project Site is not a currently listed hazardous substance release site identified by the DTSC in a list adopted pursuant to § 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code. The Project Site was listed as having a former release from a UST, but case closure has been granted, and therefore this does not represent a current listing.

Fire Hazards

The City of Malibu lies at the junction of the Santa Monica Mountains and the Pacific Ocean. Development within the City of Malibu, including roads and other infrastructure, is highly vulnerable to a variety of natural hazards, including threats from landslides, wildfires, earthquakes, storm waves, and flooding. Bluffs, beaches, and steep hillsides are subject to natural erosional forces, often accelerated by the effects of fires, torrential rains, and winter storms. Fire is a serious potential threat several months of every year due to the typically long summer dry season that is characteristic of the Mediterranean climate. Occasionally, a severe fire season is followed by a winter of high rainfall, leading to extraordinary erosion and landslides on hillside property that has been denuded of vegetation by the fire. The Project Site and surrounding area is in a fire-prone area and is designated Very High Fire Hazard Severity Zone in a local response area, as described in detail in Section 5.16, *Wildfire*.

The City of Malibu is served by the LACoFD as well as CAL FIRE, if needed. According to CAL FIRE and LACoFD, Malibu is considered an extreme fire hazard zone. There are seven County fire stations serving the City of Malibu, including four stations in the city. In the event of major fires, the County has "mutual aid agreements with cities and counties throughout the state so that additional personnel and firefighting equipment can augment the LACoFD. Wildland fires are inevitable and are part of the natural regeneration cycle of the native California landscape. Structure losses are not necessarily directly due to wildland fires but also result from (a) inappropriate siting of structures, (b) flammable ornamental landscaping, (c) surrounding structures too close together, and (d) flammable accessory structures (fences, decks, arbors, etc.).

5.8.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the Project would:

H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

H-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.

H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code § 65962.5 and, as a result, would create a significant hazard to the public or the environment.

H-5 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 result in a safety hazard or excessive noise for people residing or working in the project area.

H-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

H-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

The IS/NOP, included as Appendix B, substantiates that impacts associated with the following thresholds would be less than significant; therefore, these impacts will not be further addressed in this DEIR:

- Threshold H-3
- Threshold H-5

5.8.3 Environmental Impacts

5.8.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.8-1: The Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. [Thresholds H-1]

Construction

Construction of the Proposed Project would likely involve the use of some hazardous materials, such as vehicle fuels, lubricants, greases, and transmission fluids in construction equipment, and paints and coatings in building construction. However, the Project Site is developed as a school campus—Malibu Middle and High School campus in the center, the former Juan Cabrillo Elementary School campus in the west and the Malibu Equestrian Park in the eastern portion of the Project Site. The majority of the Proposed Project would be developed within the existing middle and high school campus and the former elementary school campus. The Project Site has been investigated under the oversight of the DTSC, and no significant hazardous materials are being used or stored that would be removed during construction. No routine transport, use, or disposal of hazardous materials currently occurs on-site, and no new or expanded handling of hazardous materials would result from Project implementation. Therefore, impacts related to the routine transport, use, or disposal of hazardous materials during construction of each phase of the Proposed Project would be **less than significant.**

Operation

Operation of the Proposed Project would involve the use of small amounts of hazardous materials for cleaning and maintenance purposes typical of janitorial staff, and pesticides by school maintenance staff. The use, storage, transport, and disposal of hazardous materials by school staff would be required to comply with existing regulations of several agencies, including DTSC, EPA, Occupational Safety and Health Administration, Los Angeles Regional Water Quality Control Board, and the Los Angeles County Department of Public Works. The Proposed Project would continue to operate in the same manner as current conditions as a school. Therefore, impacts related to the routine transport, use, or disposal of hazardous materials during operation of the Proposed Project would be **less than significant**.

Impact 5.8-2: The Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. [Threshold H-2]

PEAs were prepared in 2009 and 2015 for the Project Site due to RECs identified in the 2009 Phase I ESA. The PEAs investigated the possibility of residual pesticides in soil from termiticide usage, lead in soil from lead-based paint, residual petroleum hydrocarbons from the former USTs and bus wash in the vicinity of the bus barn, and the potential for hazardous materials from the laboratories, woodshop, art studio, and

photography darkroom being released to the septic system within the redevelopment area and adjacent to the development area. The PEA evaluated historical information for indications of the past use, storage, disposal, or release of hazardous waste/substances at the site; evaluated available information for indications of naturally occurring hazardous materials at the site; established the nature of hazardous wastes/substances that may be present in soil at the site, their concentration, and general extent; and estimated the potential threat to public health and/or the environment posed by hazardous constituents, if any, at the site using a residential land-use scenario. Field sampling activities were conducted in 2009 for the first PEA and in 2014 for the second PEA.

For the 2009 PEA, soil samples were collected from 18 locations and analyzed for lead, organochlorine pesticides, and PCBs. Lead was not reported in any of the soil samples above the DTSC health-based screening level of 80 milligrams per kilogram (mg/kg). Chlordane, an organochlorine pesticide, exceeded the health-based screening level used at the time in 3 samples. One PCB (arocolor-1254) exceeded the health-based screening level in 11 out of 18 initial soil samples. Step-out soil samples were analyzed from an additional eight locations, and aroclor-1254 exceeded screening levels at 5 locations. Chlordane was not elevated in the step-out samples. To assess the former UST area, soil gas probes were installed and analyzed for VOCs. Benzene and toluene were reported in the samples collected in the vicinity of the former USTs. No step-out samples were collected. To assess the possibility of chemical contamination in the septic system, soil and soil gas samples were collected to evaluate seepage pits. Soil samples were analyzed for metals and pH. Arsenic, cadmium, and lead were elevated over the background concentrations in some of the soil samples. Four soil gas probes were advanced in the vicinity of the leach pits, with samples collected at 5 and 10 feet below ground surface (bgs). Benzene and toluene were detected at two of the locations. Based on the results of the 2009 PEA, approximately 1,179 cubic yards of PCB- and pesticide-impacted soil were removed and classified as nonhazardous. Soil was excavated two to four feet below ground surface at the areas identified as being elevated above health-based screening levels.

In 2014, a PEA was implemented by Environ under the oversight of the DTSC to evaluate the soil, soil vapor, and groundwater of the Project Site. Based on previous reports and site visits, 18 areas of interest were identified at the Project Site. In summary, at the former JCES, 62 soil borings were advanced, 5 soil gas borings were installed, and groundwater was collected at two monitoring wells. At Malibu High School, 440 soil borings were advanced, 21 soil gas borings were installed, and groundwater was sampled at 4 monitoring wells and 2 grab groundwater samples. Based on the results, a focused response action was conducted in a planter area east of Building G at Malibu Middle and High School campus that involved the preparation of a removal action workplan for the removal of soil impacted with PCBs. Approximately 15 cubic yards of PCB-impacted soil was excavated in December 2014 under the oversight of the DTSC and was disposed of as nonhazardous waste.

A human health risk assessment that was included in the PEA determined that an approximately 0.66-acre area of the bus barn area posed an unacceptable human health risk using a residential land use risk scenario but was appropriate for school-based use. The remainder of the Project Site did not have an unacceptable risk for unrestricted residential land use, and it was determined that no further action was needed. The 2015 PEA concluded that there are no current environmental concerns, and no significant risks due to exposure to chemicals in soil and soil vapor are expected for the current or future students and staff. If land use in the bus barn area should ever change to residential, soil vapor may need to be reevaluated at that time. Based on the

PEA finding and LUC, it is anticipated that the Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

ACMs would need to be removed from the campus if present and transported to a licensed disposal facility. ACMs were used in building materials from approximately the 1930s to 1977. Asbestos was banned by the EPA in thermal insulation in 1975, in spray-applied decorative surfacing material in 1978, and in flooring felt in 1993. Although it is anticipated that ACMs from the school buildings were removed, the Proposed Project may encounter previously unidentified ACMs during demolition. Additionally, the potential for encountering lead-based paint (LBP) during construction also exists. However, the District is required to implement regulatory requirements outlined in the Title 8 CCR Subchapter 4, § 1529 (pertaining to asbestos) and § 1532.1 (pertaining to lead-based paint); 29 CFR § 1926, Subpart Z; 40 CFR § 61, Subpart M (pertaining to asbestos); and 29 CFR § 1926, Subpart D (pertaining to lead) to ensure that all removal and disturbance of ACM and LBP and subsequent waste disposal are performed in accordance with these rules and regulations that provide exposure limits, exposure monitoring, respiratory protection, and good working practice by trained workers.

In California, ACM and LBP abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services. HSC §§ 17920.10 and 105255 require lead to be contained during demolition activities. Any construction activities that have the potential to expose construction workers and/or the public to ACMs would be conducted in accordance with applicable regulations, including but not limited to HSC § 39650 et seq.; 8 CCR § 1529; and California Occupational Safety and Health Administration regulations in 8 CCR § 1529, Asbestos. All removal and disturbance of ACM and subsequent waste disposal shall be performed by an asbestos abatement contractor, using 40-hour asbestos trained workers (Asbestos Worker trained as outlined in 40 CFR § 763). The abatement contractor's workforce shall be supervised by experienced trained workers, knowledgeable and qualified in the techniques of asbestos abatement, handling, and disposal of asbestos-containing and/or asbestos-contaminated materials, and the subsequent cleaning of contaminated areas, including, at a minimum, Competent Person/Contractor Supervisor training as outlined in 40 CFR § 763. All removal and disturbance of lead-based paints and subsequent waste disposal shall be performed by a state-licensed contractor using workers certified by the California Department of Public Health (CDPH) and at least one CDPH-certified Supervisor. The abatement contractor's workforce shall be supervised by experienced trained workers, knowledgeable and qualified in the techniques of lead abatement, handling, and disposal of lead-containing and/or lead-contaminated materials, and the subsequent cleaning of contaminated areas. All construction work concerning ACMs and LBP would be performed in accordance with all applicable and relevant laws and regulations. The Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving release of hazardous materials into the environment, and impacts would be **less than significant.**

Impact 5.8-3: The Proposed Project would not be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code § 65962.5 and, as a result, would create a significant hazard to the public or the environment. [Threshold H-4]

California Government Code § 65962.5 requires CalEPA to develop a list (updated at least annually) of hazardous waste and substances release sites, known as the Cortese List or California Superfund. DTSC is responsible for a portion of the information in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List. EDR, an electronic database, was used to complete an environmental records review. The Project Site was not on state and federal hazardous materials sites, except for having a former release from a UST, but that case was granted closure and therefore no significant hazard to the public or the environment would occur. Additionally, the site has been investigated under the oversight of the DTSC for use as a school, and a 0.66-acre area was identified as being acceptable for use as a school but not for residential. A land use covenant is in effect for the 0.66-acre area near the former USTs that is annually inspected by the District and the LUC Inspection Report is approved by the DTSC, and no significant hazard to the public or the environment would occur. Therefore, impacts related to being located on a listed hazardous materials site compiled pursuant to Government Code § 65962.5 would be **less than significant.**

Impact 5.8-4: Project development would not affect the implementation of an emergency responder or evacuation plan. [Threshold H-6]

Construction

During each of the four phases of Project construction, construction vehicles including employees, vendors, and equipment would be traveling to and from the Project Site. Construction activities may occur during the school year, and therefore all construction staging areas and access locations must be well identified so that access for pick-up/drop-off as well as emergency responders is maintained. As identified in Section 5.14, *Transportation*, the Proposed Project would implement Mitigation Measure T-1 to ensure that access is sufficiently maintained during construction activities. Implementation of this measure would result in **less than significant impacts** regarding emergency access and response during construction.

Operation

The Project Site is currently accessed from Morning View Drive at two main points of vehicular entry. The first entry is on the eastern edge of campus from Morning View Drive at the Lower Parking Lot B. The Lower Lot D (to be renamed Parking Lot B) provides 62 spaces; this location has historically been used for student drop-off. There is also Parking Lot A (150 spaces) that is accessible by the shared driveway with the Lower Lot from Morning View Drive, which is used for school buses.

The second entry is at the access road between the former JCES and the MMHS campus. This entry point provides access to the JCES Parking Lot, where most drop-off and pick-up activity occurs for high school students at Parking Lot A, located west of the track and field area.

According to MMHS staff, the primary drop-off locations are the Morning View Drive drop-off area along the northern curb and Lower Lot B. A few students are dropped-off at the JCES Parking Lot and at the Morning View Drive and Merritt Drive intersection. Students are dropped off in three buses that use the future Parking Lot E (now Parking Lot A). There is also a pedestrian entrance to the north, accessible via Clover Heights Avenue.

Parking lot assignments and student and bus drop-off and pick-up have recently changed for the 2021-2022 school calendar. The drop-off on Morning View Drive has been assigned in the morning for bus drop-off; this area is used for student pick-up in the afternoon. In the afternoon, the buses use the lower Parking Lot D. The pool lot accessed via Morning View Drive just east of the former JCES campus is used for high school student pick-up and drop-off. The majority of field users access the fields from parking lots and driveways via Morning View Drive.

The Proposed Project would remove existing Lot A, the JCES lots, and the Service Lot, which are in the western side of the campus. Existing Parking Lots D and E would be renamed Lot A (150 spaces) and Lot B (62 spaces), respectively. The new Parking Lots C and D would also serve as the drop-off and pick-up areas for MMHS. The Proposed Project would not substantially change the access configurations, and as discussed in Section 5.14, *Transportation*, the Proposed Project would not result in more trips or a change in traffic patterns. The access and configurations of the parking lots would not worsen traffic conditions or emergency access in the study area. The configuration of the new Parking Lots C, D, and E would improve traffic conditions because access to Lots D and E are farther west and away from the drop-off and pick-up area adjacent to the school on Morning View Drive, and Parking Lot C provides better on-site circulation and vehicular storage than the existing JCES parking lot. Additionally, Parking Lot F would improve emergency response and access to the athletic fields at the north part of the campus. Therefore, full buildout of all phases of the Proposed Project would not affect the implementation of an emergency responder or evacuation plan, and impacts would be **less than significant**.

Impact 5.8-5: The Proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires [Threshold H-7]

The Project Site is in a Very High Fire Hazard Severity Zone in a local response area, as described in detail in Section 5.16, *Wildfire*. The Proposed Project would be required to comply with current CBC standards, CFC standards, Title 5 regulations, and local fire code requirements, including fire protection features. These features include fuel modification requirements for landscape and highly ignition-resistant buildings to minimize the likelihood of exposing students, visitors, staff, and structures to a significant risk related to wildfires.

The Proposed Project would create greater setbacks from the environmentally sensitive habitat area (ESHA) and would not introduce large amounts of nonnative vegetation on-site. The Proposed Project would result in demolition of structures within the ESHA buffer area, such as the bus barn, the playfield at the former JCES, and surface parking. The District would implement a restoration plan for the ESHA that would include weed abatement, establish invasive plant controls, and implement erosion prevention and bank stability improvements. As shown in Table 3-9, *Conceptual Plant Palette for ESHA Restoration Site*, several plants suitable for consideration for ESHA restoration efforts would be fire-resistant species. Fuel modification zones shown

on Figure 5.16-2, *Fuel Modification Zones*, would be included as part of project design. Fire-resistant landscape plants would act as a defensible space to gradually reduce fire intensity and flame lengths from advancing fire by strategically placing thinning zones and irrigated zones next to each other.

An "islandable microgrid," or ground-mounted PV solar array system with battery storage and energy control center, would be constructed to avoid loss of instruction at MMHS due to mandated public utility shutdowns to prevent fires. A 500- to 1,000-kW-hour battery storage system would be installed. The battery storage system would have a fire rating in conformance with CBC and CFC standards and local fire codes. The structure would also have cooling systems to maintain cool temperatures within the unit. Therefore, the battery storage structure would not exacerbate fire risk at the Project Site.

With implementation of fire protection building and design features and compliance with existing current standards, regulations, and code requirements, the Proposed Project would not result in a significant risk of loss, injury, or death involving wildland fires, and impacts would be **less than significant**.

5.8.4 Mitigation Measures

Implementation of Traffic Mitigation Measure T-1 during Phase 1 through Phase 4 of construction activities would result in less than significant impacts regarding emergency access and response during construction.

5.8.5 Level of Significance After Mitigation

Mitigation Measure T-1 would reduce potential impacts related to hazards and hazardous materials to a level that is **less than significant**. Therefore, no significant unavoidable adverse impacts related to hazards and hazardous materials have been identified.

5.8.6 Cumulative Impacts

The area considered for cumulative impacts is the City of Malibu. Hazards and hazardous waste impacts are typically unique to each site and do not usually contribute to cumulative impacts. Cumulative development projects would be required to assess potential hazardous materials impacts on the development site prior to grading. The Proposed Project and cumulative projects would be required to comply with laws and regulations governing hazardous materials and hazardous waters used and generated, as described in Section 5.8.1.1. Therefore, cumulative impacts related to hazards and hazardous materials would be less than significant after regulatory compliance.

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5. Environmental Analysis
HAZARDS AND HAZARDOUS MATERIALS

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5.9 HYDROLOGY AND WATER QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the Malibu Middle and High School (MMHS) Campus Specific Plan Project's (Proposed Project) potential impacts to hydrology and water quality conditions in the city of Malibu. Hydrology deals with the distribution and circulation of water, both on land and underground. Water quality deals with the quality of surface-and groundwater. Surface water includes ocean, lakes, rivers, streams, and creeks; groundwater is under the earth's surface.

The analysis in this section is based in part on the following technical reports:

- *Jurisdictional Delineation Report for the Malibu Middle and High School Specific Plan and LCP Amendment Project in Malibu*, Psomas, September 2021
- *Geotechnical Exploration Malibu Middle & High School Campus Plan Phase I New High School Core Project 30237 Morning View Drive, City of Malibu, California*, Leighton Consulting, Inc., November 20, 2020, revised January 15, 2021.
- *SMMUSD Malibu HS ESHA and Phase 1 Hydrology and Hydraulics Report*, Psomas, September 1, 2021 ("ESHA and Phase 1 Hydrology Report")
- *SMMUSD Malibu HS Specific Plan Hydrology and Hydraulics Report*, Psomas, September 27, 2021 ("Project Site Hydrology Report")

Complete copies of these technical reports are provided in Appendices F, H, and J of this DEIR.

In response to the to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project, eleven comment letters from residents were received that address hydrology and water quality topics. The comment letters discuss the concerns regarding flooding and mud and debris flow on and off campus during heavy rains and concerns regarding the Project Site's stormwater drainage system and treatment of the stream on-site. The IS/NOP and all scoping comment letters are included as Appendices B and C to this document.

5.9.1 Environmental Setting

5.9.1.1 REGULATORY BACKGROUND

Local laws, regulations, plans, or guidelines that are potentially applicable to the Proposed Project are summarized in this section. They are designed to achieve regional water quality objectives and thereby protect the beneficial uses of the region's surface and groundwater.

Federal

Clean Water Act

The Clean Water Act (CWA) is a 1977 amendment to the Federal Water Pollution Control Act of 1972. The CWA is the principal statute governing water quality. It establishes the basic structure for regulating discharges

of pollutants into the waters of the United States[1] and gives the federal Environmental Protection Agency (EPA) the authority to implement pollution-control programs, such as setting wastewater standards for industry. The statute's goal is to end all discharges entirely and to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates both the direct and indirect discharge of pollutants into the nation's waters. The CWA sets water quality standards for all contaminants in surface waters and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges, requires states to establish site-specific water quality standards for navigable bodies of water, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA also funded the construction of sewage treatment plants and recognized the need for planning to address nonpoint sources of pollution. The following CWA Sections assist in ensuring water quality in surrounding water bodies.

- Section 208 of the CWA requires the use of best management practices (BMPs) to control discharge of pollutants in stormwater during construction.

- Section 303(d) requires creation of a list of impaired water bodies by states, territories, and authorized tribes; evaluation of lawful activities that may impact impaired water bodies;[2] and preparation of plans to improve the quality of these water bodies. Water bodies on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution-control technology.

- Section 402(p) establishes a framework to control water pollution by regulating point-source discharges under the National Pollutant Discharge Elimination System (NPDES) permit program. Point-source discharges are readily identifiable, discrete inputs where waste is discharged to the receiving waters from a pipe or drain. Nonpoint discharges occur over a wide area and are associated with particular land uses (such as urban runoff from streets and stormwater from construction sites).

National Pollution Discharge Elimination System

Under the NPDES program (under § 402 of the CWA), all facilities that discharge pollutants from any point source into waters of the U.S. must have a NPDES permit. The term "pollutant" broadly applies to any type of industrial, municipal, and agricultural waste discharged into water. Point sources can be publicly owned treatment works (POTWs), industrial facilities, and urban runoff. The NPDES program addresses certain agricultural activities, but the majority are considered nonpoint sources and are exempt from NPDES regulation. Direct sources discharge directly to receiving waters, and indirect sources discharge to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only for direct, point-source discharges. The NPDES has a variety of measures designed to minimize and reduce pollutant discharges. All counties with storm drain systems that serve a population of 50,000 or more, as well as construction sites one acre or more in size, must file for and obtain an NPDES permit.

[1] Waters of the US generally include surface waters—lakes, rivers streams, bays, the ocean, dry streambeds, wetlands—and storm sewers that are tributary to any surface water body.

[2] Impaired water bodies are water bodies that do not meet or are not expected to meet water quality standards.

Coastal Zone Act Reauthorization Amendments

The 1990 Coastal Zone Act Reauthorization Amendment (CZARA) identified polluted runoff as a significant factor in coastal water degradation for shore-side municipalities. To address polluted water in the coastal zone, CZARA § 6217 requires the twenty-nine states and territories with approved Coastal Zone Management Programs to develop a coastal nonpoint source (NPS) pollution control program. The Coastal Nonpoint Source Pollution Control Program (§ 6217) addresses nonpoint pollution problems in coastal waters. In its program, a state or territory describes how it will implement NPS pollution controls, known as management measures, that conform to those described in Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters. This program is administered jointly with the National Oceanic and Atmospheric Administration (NOAA).

The Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters provides guidance to states and territories on the types of management measures that should be included in state and territorial coastal nonpoint pollution control programs. California's specific response to § 6217 continues to be developed by the State Water Resources Control Board (SWRCB), the California Coastal Commission (CCC) in consultation with the National Oceanographic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA). The CZARA program is also reflected in the revised NPDES permitting requirements.

State

State Water Resources Control Board

Responsibility for the protection of water quality in California rests with the SWRCB and nine Regional Water Quality Control Boards (RWQCB). The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations. The RWQCBs develop and implement Water Quality Control Plans (Basin Plans) that consider regional beneficial uses, water quality characteristics, and water quality problems. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria are used to establish a standard. Other criteria may be applied from SWRCB documents (e.g., the Inland Surface Waters Plan and the Pollutant Policy Document, California Toxics Rule) or from EPA water quality criteria developed under § 304(a) of the CWA. Numeric criteria are required by the CWA for many priorities toxic pollutants. To fill in the gap between the water quality control plans and CWA requirements, on May 18, 2000, the EPA promulgated the California Toxics Rule based on the Administrator's determination that numeric criteria are necessary in California to protect human health and the environment. These federal criteria are numeric water quality criteria for priority toxic pollutants and other provisions for water quality standards legally applicable in California for inland surface waters, enclosed bays, and estuaries for all purposes and programs under the CWA.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code §§ 13000 et seq.) is the basic water quality control law for California. Under this Act, the SWRCB has ultimate control over state water rights and water quality policy. In California, the EPA has delegated authority to issue NPDES permits to the SWRCB. The state is

divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine RWQCBs carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan or Basin Plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems.

Waste Discharge Requirements

All dischargers of waste to waters of the state are subject to regulation under the Porter-Cologne Act and the requirement for waste discharge requirements (WDRs) is incorporated into the California Water Code. This includes both point and NPS dischargers. All current and proposed NPS discharges to land must be regulated under WDRs, waivers of WDRs, a basin plan prohibition, or some combination of these administrative tools. Discharges of waste directly to state waters would be subject to an individual or general NPDES permit, which also serves as WDRs. The Proposed Project is subject to the Municipal Stormwater NPDES Permit the Construction General Permit, which both also serve as WDRs. The Proposed Project would also be subject to an individual WDR or NPDES permit for the on-site wastewater treatment system and for construction dewatering, if required.

The RWQCBs have primary responsibility for issuing WDRs. The RWQCBs may issue individual WDRs to cover individual discharges or general WDRs to cover a category of discharges. WDRs may include effluent limitations or other requirements that are designed to implement applicable water quality control plans, including designated beneficial uses and the water quality objectives established to protect those uses and prevent the creation of nuisance conditions. Violations of WDRs may be addressed by issuing Cleanup and Abatement Orders or Cease and Desist Orders, assessing administrative civil liability, or seeking imposition of judicial civil liability or judicial injunctive relief.

Total Maximum Daily Loads (State-Level Implementation)

States are required to assess waters for impairment every two years and develop total maximum daily loads (TMDLs) for waterbodies listed as impaired on the 303(d) list, approved by the EPA. The current approved 303(d) list is the 2006 list, which was approved by the EPA on June 27, 2007. The 303(d) list includes the pollutant(s) contributing to impairment, sources of impairment, and a completion date for development of TMDLs. In California, the SWRCB has interpreted state law to require that implementation be addressed when TMDLs are incorporated into Basin Plans.

Zuma County Beach listed impairments for which TMDLs must be developed to include indicator bacteria, DDT, and PCBs. However, no TMDLs for Zuma County Beach, the Project Site's receiving water, have yet been developed.

National Pollutant Discharge Elimination System (State- and Regional-Level Implementation)

The SWRCB establishes policies and regulations that help protect and restore the water quality in California. The SWRCB also coordinates with and supports RWQCB efforts, and reviews RWQCB actions. The RWQCB monitors and enforces state and federal plans, policies, and regulations. Each RWQCB makes critical water quality decisions for its region. While the SWRCB has issued a few NPDES permits, the vast majority of

NPDES permits are issued by RWQCBs. Typically, NPDES permits are issued for a five-year term. Future development on the Project Site would be subject to conditions in the NPDES permits described below.

Statewide NPDES General Construction Activity Stormwater Permit

Pursuant to the CWA § 402(p) and as related to the goals of the Porter-Cologne Water Quality Control Act, the SWRCB has issued a statewide NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAR000002), adopted September 2, 2009, hereinafter referred to as the Construction General NDPES Permit. Every construction project that disturbs 1 acre or more of land surface or that are part of a common plan of development or sale that disturbs more than 1 acre of land surface would require coverage under the Construction General NPDES Permit. Construction activities subject to the Construction General NPDES Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least 1 acre of total land area. To obtain coverage under the Construction General NDPES Permit, the landowner or other applicable entity must file Permit Registration Documents prior to the commencement of construction activity, which include a Notice of Intent (NOI), Stormwater Pollution Prevention Plan (SWPPP), and other documents required by the Construction General NPDES Permit and SWRCB. Because the Proposed Project would disturb more than 1 acre, construction of the Proposed Project would be subject to the Construction General NPDES Permit requirements.

The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges. The SWPPP must include specific minimum BMPs for stormwater quality depending upon the project's sediment risk to receiving waters. BMPs are intended to reduce impacts to the maximum extent practicable, a standard created by Congress to allow regulators the flexibility necessary to tailor programs to the site-specific nature of municipal stormwater discharges. Reducing impacts to the MEP generally relies on BMPs that emphasize pollution prevention and source control, with additional structural controls as needed. However, depending upon the project's sediment risk, stormwater runoff Numeric Action Level or Numeric Effluent Levels are required for pH and turbidity.

Risk levels are based on a matrix of project sediment risk and receiving water risk. Sediment risk is based on estimated soil loss, as calculated by the Revised Universal Soil Loss Equation (RUSLE) where: soil loss of less than 15 tons/acre is considered low risk; soil loss between 15 and 75 is medium risk; and soil loss over 75 acres is considered high risk. Receiving water risk is based on whether a project drains to a sediment-sensitive water body. A sediment-sensitive waterbody is either on the most recent 303(d) list for waterbodies impaired for sediment; has an EPA-approved TMDL implementation plan for sediment; or has the beneficial uses of cold freshwater habitat, fish spawning, and fish migration.

California Coastal Act

One of the chief objectives of the California Coastal Act (CCA) is the preservation, protection, and enhancement of coastal resources, including land and marine habitats, and water quality. The rarest and most ecologically important habitats are protected from development. The CCA provides a definition of

"environmentally sensitive area" as, "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (§ 30107.5).

Section 30240 requires the protection of Environmentally Sensitive Habitat Areas (ESHA) against any significant disruption of habitat values. No development, except for uses dependent on the resources, is allowed within any ESHA. (However, § 30240 must be applied in concert with other CCA requirements, particularly § 30010, which prohibits taking private property.) This policy further requires that development adjacent to an ESHA is sited and designed to prevent impacts that would significantly degrade the ESHA and to be compatible with the continuance of the habitat areas. Finally, development adjacent to parks and recreation areas must be sited and designed to prevent impacts.

In addition to protection as an ESHA, streams and associated riparian habitat are also protected to maintain the biological productivity and quality of coastal waters. Section 30231 requires that natural vegetation buffer areas that protect riparian habitats be maintained, and that the alteration of natural streams be minimized. Section 30236 limits channelization, dams, or other substantial alterations of rivers and streams to only three purposes: necessary water supply; protection of existing structures where there is no feasible alternative; or improvement of fish and wildlife habitat.

Finally, the CCA requires that the biological productivity and quality of coastal waters be protected. Section 30231 requires the use of means, including managing wastewater discharges, controlling runoff, protecting groundwater and surface water, encouraging wastewater reclamation, and protecting streams, to maintain and enhance water quality.

Regional

Los Angeles County Municipal Stormwater NPDES Permit

Stormwater discharges from the County of Los Angeles are regulated under the Waste Discharge Requirements for Municipal Stormwater and Urban Runoff Discharges within the County of Los Angeles, and Incorporated Cities Therein, Except the City of Long Beach (Order No. 01-182 and NPDES No. CAS004001), dated December 13, 2001, including all subsequent amendments through December 10, 2009, issued by the LARWQCB which also serves as a NPDES permit under the federal CWA. The provisions of this permit are intended to develop, achieve, and implement a timely, comprehensive, cost-effective stormwater pollution control program to reduce the discharge of pollutants in stormwater to the MEP from the permitted areas in the County of Los Angeles to the waters of the state. The Permittees are required to effectively prohibit non stormwater discharges into the municipal storm drain system. The Los Angeles County Flood Control District is the Principal Permittee, and the City of Malibu is a Permittee under this Municipal Stormwater Permit. The Stormwater Quality Management Plan (SQMP) and its components must be designed to achieve compliance with receiving water limitations. General requirements for the SQMP are listed in Part 3 of the Municipal Stormwater Permit, which requires that each Permittee, including the City of Malibu, implement the SQMP. The SQMP is an enforceable element of this Order. Additionally, the SQMP shall, at a minimum, comply with the applicable stormwater program requirements of 40 CFR 122.26(d)(2). The SQMP and its components shall be implemented to reduce the discharges of pollutants in stormwater to the MEP. Each Permittee is required

to comply with the requirements of this Municipal Stormwater Permit applicable to discharges within its boundaries.

In Part 4 (Special Provisions) of this permit, the Permittees, including the City of Malibu, are required to implement a development-planning program that will require all Planning Priority development and redevelopment projects to maximize pervious surfaces, minimize runoff directed to impervious surfaces, implement BMPs to reduce pollution from parking lots, and implement other measures to reduce stormwater pollutant loads.

The Permittees are also required to control post-construction peak stormwater runoff discharge rates, velocities, and duration (peak flow control) in natural drainage systems (i.e., mimic pre-development hydrology) to prevent accelerated stream erosion and to protect stream habitat. The Permittees shall require that post construction treatment control BMPs incorporate, at a minimum, either a volumetric or flow-based treatment control design standard, or both, to mitigate (infiltrate, filter or treat) stormwater runoff.

The Permittees shall apply the Standard Urban Stormwater Mitigation Plan (SUSMP), or site-specific requirements, including post-construction stormwater mitigation to all Planning Priority Projects that undergo significant redevelopment in their respective categories. Significant redevelopment means land disturbing activities that result in the creation, addition, or replacement of 5,000 square feet (sf) or more of impervious surface area on an already developed site. Where redevelopment results in an alteration to more than 50 percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development stormwater quality control requirements, the entire project must be mitigated. Where redevelopment results in an alteration to less than 50 percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development stormwater quality control requirements, only the alteration must be mitigated, and not the entire development.

Each Permittee is also required to implement a program to control runoff from construction activity at all construction sites within its jurisdiction. Each Permittee, including the City of Malibu, must comply with all the terms, requirements, and conditions of this Municipal Stormwater Permit. Any violation of this permit constitutes a violation of the CWA, its regulations, and the CWC. Each Permittee shall also take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment. This permit also includes provisions for site inspection and entry.

The SUSMP was developed as part of the municipal stormwater program to address stormwater pollution from new development and redevelopment by the private sector. The SUSMP contains a list of the minimum required BMPs that must be used for a designated project. Additional BMPs may be required by ordinance or code adopted by the Permittee and applied generally or on a case-by-case basis. The Permittees, including the City of Malibu, are required to adopt the requirements set herein in their own SUSMP. Developers must incorporate appropriate SUSMP requirements into their project plans. Each Permittee will approve the project plan as part of the development plan approval process and prior to issuing building and grading permits for the projects covered by the SUSMP requirements.

Regional Dewatering General Waste Discharge Requirements

The RWQCB has issued a general permit for construction dewatering (Waste Discharge Requirements for Discharges of Groundwater from Construction Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties Order No. R4-2008-0032, and NPDES No. CAG994004). Discharges covered by this permit include but are not limited to, treated or untreated groundwater generated from permanent or temporary dewatering operations. Wastewater discharge from permanent or temporary dewatering activities include, but are not limited to the following:

- Treated or untreated wastewater from permanent or temporary construction dewatering operations
- Subterranean seepage dewatering
- Incidental collected stormwater from basements

This order regulates the discharge of groundwater that may or may not be impacted by toxic compounds and/or conventional pollutants. This general permit does not provide specific treatment technologies for the universe of toxic compounds that could be found in groundwater. When treatment is required prior to discharge, dischargers will be required to submit schematics of treatment flow diagrams with descriptions of the treatment system including statements on the effectiveness of the system to achieve the applicable permit limits during the permit process.

To be authorized to discharge under this general permit, the discharger must submit a Report of Waste Discharge (ROWD) and an application for an individual WDR (discharge to land surface) or NPDES permit (discharge to surface waters). Upon receipt of the application, the Executive Officer shall determine the applicability of this general permit to such a discharge. If the discharge is eligible, the Executive Officer shall notify the discharger that the discharge is authorized under the terms and conditions of this general permit and prescribe an appropriate monitoring and reporting program. The discharge shall not commence until receipt of the Executive Officer's written determination of eligibility for coverage under this general permit or until an individual WDR/NPDES permit is issued by the RWQCB.

Regional On-Site Wastewater Treatment System (OWTS) WDR

The RWQCB has issued a General Waste Discharge Requirements for Small Commercial and Multifamily Residential Subsurface Sewage Disposal Systems (Order No. 01-031), February 22, 2001. Small (maximum daily flow of 20,000 gpd or less) subsurface OWTS may be eligible for coverage under this General WDR. To obtain coverage under this General WDR, the discharges must file an ROWD and fee with the RWQCB. Based on the ROWD, the RWQCB may decide the discharger is eligible for coverage under this General WDR. To be eligible for coverage, the discharge shall not cause or contribute to violation of applicable water quality objectives for the receiving water, including discharge prohibitions; shall not cause or contribute to acute or chronic toxicity in receiving waters; and the discharge shall pass through an appropriate treatment system to meet the requirements of this General WDR. Industrial waste discharges are prohibited. The applicable receiving water limitations include less than 1.1 MPN8/100 mL total coliforms, no more than 10 mg/L total- and nitrate-nitrogen 250 mg/L sulfate, and pH 6.5 to 8.5. The receiving water for the purpose of this General WDR is the groundwater within 50 feet of the furthest extent of the disposal area or the property boundary, whichever is less. Additionally, the OWTS and disposal systems must be protected from damage from a 100-year storm

event, including diversion of stormwater away from seepage pits where potential pollutants are stored. This General WDR also requires groundwater monitoring and reporting. If the discharger is not eligible for coverage under this General WDR, an individual WDR would be required.

Basin Plan

The Los Angeles Regional Water Quality Control Board (LARWQCB) (Region 4) implements several federal and state laws, the most important of which are the state Porter-Cologne Act and the federal CWA. The Water Quality Control Plan Los Angeles Region Basin Plan (1995, and as amended in 2010) was prepared by the LARWQCB to comply with the federal CWA and the state Porter-Cologne Act. The Basin Plan establishes water quality objectives, and implementation programs to meet stated objectives and to protect the beneficial uses of water in the Los Angeles River Basin. Basin Plan designated beneficial uses together with defined water quality objectives comprise the relevant water quality standards.

The existing beneficial uses at Zuma County Beach include water contact and noncontact water recreation; commercial and sport fishing; wildlife habitat; marine habitat; and shellfish harvesting (area exhibiting large shellfish population). Fish spawning is also a potential beneficial use.

The beneficial uses of local groundwater would be Municipal and Domestic Supplies.

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

The LUP has specific hydrology and water quality policies. A few policies that would apply to the Proposed Project are listed below.

Water Quality

Watershed Planning

- **LUP Policy 3.94.** The City will support and participate in watershed based planning efforts with the County of Los Angeles and the Regional Water Quality Control Board. Watershed planning efforts shall be facilitated by helping to:

    a. Pursue funding to support the development of watershed plans

b. Identify priority watersheds where there are known water quality problems or where development pressures are greatest

c. Assess land uses in the priority areas that degrade coastal water quality

d. Ensure full public participation in the plan's development.

Development

- **LUP Policy 3.95.** New development shall be sited and designed to protect water quality and minimize impacts to coastal waters by incorporating measures designed to ensure the following:

  a. Protecting areas that provide important water quality benefits, areas necessary to maintain riparian and aquatic biota and/or that are susceptible to erosion and sediment loss.

  b. Limiting increases of impervious surfaces.

  c. Limiting land disturbance activities such as clearing and grading, and cut-and-fill to reduce erosion and sediment loss.

  d. Limiting disturbance of natural drainage features and vegetation.

- **LUP Policy 3.96.** New development shall not result in the degradation of the water quality of groundwater basins or coastal surface waters including the ocean, coastal streams, or wetlands. Urban runoff pollutants shall not be discharged or deposited such that they adversely impact groundwater, the ocean, coastal streams, or wetlands, consistent with the requirements of the Los Angeles Regional Quality Control Board's municipal stormwater permit and the California Ocean Plan.

- **LUP Policy 3.97.** Development must be designed to minimize, to the maximum extent feasible, the introduction of pollutants of concern[3] that may result in significant impacts from site runoff from impervious areas. To meet the requirement to minimize "pollutants of concern," new development shall incorporate a Best Management Practice (BMP) or a combination of BMPs best suited to reduce pollutant loading to the maximum extent feasible.

- **LUP Policy 3.98.** A water quality checklist shall be developed and used in the permit review process to assess potential water quality impacts.

- **LUP Policy 3.99.** Post-development peak stormwater runoff discharge rates shall not exceed the estimated predevelopment rate. Dry weather runoff from new development must not exceed the predevelopment baseline flow rate to receiving waterbodies.

[3] Pollutants of concern are defined in the Standard Urban Stormwater Mitigation Plan for Los Angeles County and cities in Los Angeles County as consisting "of any pollutants that exhibit one or more of the following characteristics: current loadings or historic deposits of the pollutant are impacting the beneficial uses of a receiving water, elevated levels of the pollutant are found in sediments of a receiving water and/or have the potential to bioaccumulate in organisms therein, or the detectable inputs of the pollutant are at a concentrations or loads considered potentially toxic to humans and/or flora or fauna."

- **LUP Policy 3.100.** New development shall be sited and designed to minimize impacts to water quality from increased runoff volumes and nonpoint source pollution. All new development shall meet the requirements of the Los Angeles Regional Water Quality Control Board (LARWQCB) in it's the Standard Urban Stormwater Mitigation Plan for Los Angeles County and Cities in Los Angeles County (March 2000) (LA SUSMP) or subsequent versions of this plan.

- **LUP Policy 3.101.** If the State Water Resources Control Board (State Board) or the California Regional Water Control Board, Los Angeles Region (Regional Board) revise the California Water Quality Control Plan, Los Angeles Region (Basin Plan), the Water Quality Control Plan for Ocean Waters of California (California Ocean Plan), or other applicable regulatory requirements, the City of Malibu should consult with the State Board, Regional Board and the Coastal Commission to determine if an LCP amendment is appropriate.

- **LUP Policy 3.102.** Post-construction structural BMPs (or suites of BMPs) should be designed to treat, infiltrate, or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs and/or the 85th percentile, l-hour storm event (with an appropriate safety factor, i.e., 2 or greater) for flow-based BMPs. This standard shall be consistent with the most recent Los Angeles Regional Water Quality Control Board municipal stormwater permit for the Malibu region or the most recent California Coastal Commission Plan for Controlling Polluted Runoff, whichever is more stringent.

- **LUP Policy 3.110.** New development shall include construction phase erosion control and polluted runoff control plans. These plans shall specify BMPs that will be implemented to minimize erosion and sedimentation, provide adequate sanitary and waste disposal facilities and prevent contamination of runoff by construction chemicals and materials.

- **LUP Policy 3.111.** New development shall include post-development phase drainage and polluted runoff control plans. These plans shall specify site design, source control, and treatment control BMPs that will be implemented to minimize post-construction polluted runoff, and shall include the monitoring and maintenance plans for these BMPs.

- **LUP Policy 3.115.** Permits for new development shall be conditioned to require ongoing maintenance where maintenance is necessary for effective operation of required BMPS. Verification of maintenance shall include the permittee's signed statement accepting responsibility for all structural and treatment control BMP maintenance until such time as the property is transferred and another party takes responsibility.

- **LUP Policy 3.116.** The City, property owners, or homeowners associations, as applicable, shall be required to maintain any drainage device to insure it functions as designed and intended. All structural BMPs shall be inspected, cleaned, and repaired when necessary, prior to September 30th of each year. Owners of these devices will be responsible for insuring that they continue to function properly and additional inspections should occur after storms as needed throughout the rainy season. Repairs, modifications, or installation of additional BMPs, as needed, should be carried out prior to the next rainy season.

- **LUP Policy 3.119.** New development that requires a grading permit or Local SWPPP shall include landscaping and re-vegetation of graded or disturbed areas, consistent with Policy 3.50. Any landscaping that is required to control erosion shall use native or drought-tolerant noninvasive plants to minimize the need for fertilizer, pesticides, herbicides, and excessive irrigation. Where irrigation is necessary, efficient irrigation practices shall be required.

- **LUP Policy 3.120.** New development shall protect the absorption, purifying, and retentive functions of natural systems that exist on the site. Where feasible, drainage plans shall be designed to complement and utilize existing drainage patterns and systems, conveying drainage from the developed area of the site in a non-erosive manner. Disturbed or degraded natural drainage systems shall be restored, where feasible, except where there are geologic or public safety concerns.

Wastewater and On-Site Treatment Systems

- **LUP Policy 3.124.** A Wastewater Management Plan should be developed within a timeframe to be determined by the City in consultation with the Environmental Review Board, Wastewater Advisory Committee, and other pertinent City committees, to address future wastewater issues.

- **LUP Policy 3.125.** Development involving on-site wastewater discharges shall be consistent with the rules and regulations of the L.A. Regional Water Quality Control Board, including Waste Discharge Requirements, revised waivers and other regulations that apply.

- **LUP Policy 3.126.** Wastewater discharges shall minimize adverse impacts to the biological productivity and quality of coastal streams, wetlands, estuaries, and the ocean. On-site treatment systems (OSTSs) shall be sited, designed, installed, operated, and maintained to avoid contributing nutrients and pathogens to groundwater and/or surface waters.

- **LUP Policy 3.127.** OSTSs shall be sited away from areas that have poorly or excessively drained soils, shallow water tables or high seasonal water tables that are within floodplains or where effluent cannot be adequately treated before it reaches streams or the ocean.

- **LUP Policy 3.128.** New development shall be sited and designed to provide an area for a backup soil absorption field in the event of failure of the first field.

- **LUP Policy 3.130.** Subsurface sewage effluent dispersal fields shall be designed, sited, installed, operated, and maintained in soils having acceptable absorption characteristics determined either by percolation testing, or by soils analysis, or by both. No subsurface sewage effluent disposal fields shall be allowed beneath nonporous paving or surface covering.

- **LUP Policy 3.133.** New development shall include protective setbacks from surface waters, wetlands and floodplains for conventional or alternative OSTSs, as well as separation distances between OSTS system components, building components, property lines, and groundwater. Under no conditions shall the bottom of the effluent dispersal system be within 5 feet of groundwater.

- **LUP Policy 3.134.** The construction of private sewage treatment systems shall be permitted only in full compliance with the building and plumbing codes and the requirements of the LA RWQCB. A coastal development permit shall not be approved unless the private sewage treatment system for the project is sized and designed to serve the proposed development and will not result in adverse individual or cumulative impacts to water quality for the life of the project.

- **LUP Policy 3.135.** OSTSs shall be designed, sited, installed, operated, and maintained in compliance with the policies and provisions contained herein. When the rules and regulations developed for OSTSs by the State Water Resources Control Board pursuant to Assembly Bill 885 become effective, if they conflict with the requirements of the LCP, the City shall submit an LCP amendment seeking to modify the requirements of the LCP.

- **LUP Policy 3.138.** Applications for new development relying on an OSTS shall include a soils analysis and or percolation test report. Soils analysis shall be conducted by a California Registered Geotechnical Engineer or a California Registered Civil Engineer in the environmental/geotechnical field and the results expressed in United States Department of Agriculture classification terminology. Percolation tests shall be conducted by a California Registered Geologist, a California registered Geotechnical Engineer, a California Registered Civil Engineer, or a California Registered Environmental Health Specialist. The OSTS shall be designed, sited, installed, operated, and maintained in full compliance with the building and plumbing codes and the requirements of the LA RWQCB.

- **LUP Policy 3.140.** New septic systems shall be sited and designed to ensure that impacts to ESHA, including those impacts from grading and site disturbance and the introduction of increased amounts of groundwater, are minimized. Adequate setbacks and/or buffers shall be required to protect ESHA and other surface waters from lateral seepage from the sewage effluent dispersal systems.

Local Coastal Program's Local Implementation Plan

Chapter 17 (Water Quality Protection Ordinance) of the LIP contains requirements for protection and enhancement of coastal waters within the City of Malibu in accordance with the policies of the City of Malibu's LCP, §§ 30230, 30231, 30232 and 30240 of the CCA, and the City of Malibu's municipal NPDES permit requirements under the RWQCB. To implement the certified LUP, application submittal requirements, development standards, and other measures are included to ensure that permitted development shall be sited and designed to conserve natural drainage features and vegetation, prevent the introduction of pollutants into coastal waters, and protect the overall quality of coastal waters and resources.

BMPs should be incorporated into the project design in the following progression:

- Site Design BMPs
- Source Control BMPs
- Treatment Control BMPs

Projects should be designed to control post-development peak runoff rates and average volumes to maintain or reduce pre-development downstream erosion rates creation of a hydrologically functional project design that strives to mimic the natural hydrologic regime and by achieving the following goals:

- Maintain and use natural drainage courses and vegetation
- Conserve natural resources and areas by clustering development on the least environmentally sensitive portions of a site while leaving the remaining land in a natural, undisturbed condition
- Reduce the amount of directly connected impervious surface and total area of impervious surface
- Incorporate on-site retention and infiltration measures
- Direct rooftop runoff to permeable areas rather than driveways or impervious surfaces to reduce the amount of stormwater leaving the site
- Minimize clearing and grading

Section 17.4 (Development Standards), section 17.5 (Development Specific Design Standards), and section 17.6 (Prohibited Activities) of the LIP describe the requirements and process for implementing BMPs into development and provide examples of types of BMPs to incorporate.

The LIP contains additional requirements for OWTSs in § 18.4 (Permit Application and Other General Requirement), which includes a Site Evaluation Report (SER) with specific minimum information. Section 18.7 (Siting, Design, and Performance) lists specific minimum siting, design, and performance requirements for OWTSs. Minimum percolation test rates are 0.83 gallon per square foot per day and maximum of 60 minutes per inch without additional treatment prior to discharge. Minimum horizontal setbacks are specified. Section 18.9 (Maintenance, Operation, and Monitoring) specifies ongoing maintenance monitoring and reporting.

Malibu Municipal Code

Municipal Code (MMC) Chapter 13.04 (Stormwater Management and Discharge Control) codifies the "City of Malibu Stormwater Management and Discharge Control Ordinance." The purpose of the chapter to protect the health, safety and general welfare of the City's citizens and the water quality of the receiving waters of the Santa Monica Bay, including Area of Special Biological Significance (ASBS) No. 24. The chapter also aims to protect and enhance the water quality of watercourses, water bodies, and wetlands within the City and provide the City with the legal authority to control discharges into its municipal storm water system.

Section 13.04.050 (Construction and application) requires compliance with the federal CWA and acts amendatory thereof or supplementary thereto, applicable implementing regulations, and the Municipal NPDES Permit, and any amendment, revision, or reissuance thereof.

Section 13.04.090 (Good housekeeping provisions) requires that property owners or occupants within the City implement best management practices to prevent or reduce non-stormwater discharges and the discharge of pollutants to the municipal storm to municipal, water systems, natural drainage course, Area of Special Biological Significance and receiving waters to the maximum extent practicable.

Section 13.04.100 (Requirements for industrial/commercial and construction activities) requires reduction of sediment in construction stormwater runoff to the maximum extent practicable and proof of compliance prior

to issuance of any grading, building, occupancy permit or any other type of permit or license issued by the city. This section also requires reductions of other pollutants in stormwater runoff and minimum construction BMPs including a Local Stormwater Pollution Prevention Plan and Wet Weather Erosion Control Plan, consistent with the municipal NPDES permit. Such plans must be submitted to the city for review and approval prior to the issuance of building or grading permits.

Section 13.04.110 (Stormwater management plan for new development and redevelopment projects) requires an approved Stormwater Management Plan prior to the issuance of a building permit. This stormwater management plan shall mitigate increased runoff rates due to new impervious surfaces through on-site detention such that peak runoff rate after development does not exceed the peak runoff of the site before development for the one hundred (100) year clear flow storm event. The section also includes detention basin(s)/facility(ies) and on-site storm drain systems design requirements, a hydrology/hydraulic report that determines if the entire downstream storm drain conveyance devices from the Project Site to the ocean outlet are adequate for the 25-year storm event, and construction of necessary off-site storm drain improvements.

Required storm drain pollution prevention measures included all construction elements and BMPs to address the following goals in connection with both construction and long-term operation of the site:

a. Maximize, to the extent practicable, the percentage of permeable surfaces to allow more percolation of runoff into the ground

b. Maximize, to the extent practicable, retention of dry-weather runoff on site to allow percolation into the ground, or installation of other treatment measures thereby preventing pollutants from entering the storm drain system

Section 13.04.120 (Planning and land development program requirements for new development and redevelopment projects) outlines requirements for construction activities and facility operations for new development and redevelopments projects to adhere to the municipal NPDES permit and lessen the impact of development through smart growth and integrate low impact development principles. This section applies various types of development and redeveloped, including but not limited to, all development projects equal to one acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area and projects that create 2,500 square feet of impervious surfaces located within or directly adjacent to or discharge directly to an ESHA, among others. Redevelopment projects that have land disturbing activities that result in the creation, addition, or replacement of 5,000 square feet of impervious surfaces on an already developed site on planning priority project categories, among others.

Projects must be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention and/or rainfall harvest and use to meet performance criteria specific for the proposed used. Planning priority projects, aside from those identified in MMC § 13.04.120.D.1-3, are required to prepare a water quality mitigation plan that retains stormwater runoff on-site from either an 85 percentile 24-hour runoff event or the volume of runoff produced from a three-quarter inch, 24-hour rain event, whichever is greater.

Multi-phased project may comply with the standards and requirements of the section for all its phases by designing a system to satisfy the standards and requirement for the entire site during the first phase and implementing these standards and requirement for each phase of development or redevelopment of the site during the first phase or prior to commencement of construction of a later phase to the extent necessary to treat the stormwater from such later phase.

Project plans must include a water quality mitigation plan (WQMP), which identifies BMPs necessary to control storm water pollution during construction and operation, stormwater pollution prevention plan (SWPPP) and applicable BMPs to meet the performance criteria in the municipal NPDES permit and/or general construction permit.

This section also requires that no discretionary permit be issued until the authorized enforcement officer confirms that the Project plans comply with the applicable stormwater mitigation plans and design criteria requirements.

Chapter 15.40 of the MMC, Regulation of Onsite Wastewater Treatment Systems, establishes standards for the siting, design, installation, operation, and maintenance of OWTS within the City of Malibu. These standards are adopted in compliance with the City's LCP and LIP to protect the overall quality of coastal waters and resources in the City and consistent with California Water Resources Control Board OWTS Policy and Los Angeles Regional Water Quality Control Board's Basin Plan. These standards apply to all existing, new, or replacement OWTS in the City.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the City of Malibu and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 3. Conservation Element

The City of Malibu General Plan's Conservation Element serves as a guide for the conservation, protection, restoration and management, development, and appropriate and responsible use of the City's existing natural resources. The Conservation Element has the following goals, policies, and objectives related to water quality:

CON GOAL 4: Water Conserved

- **CON Policy 4.1.2**: The City shall coordinate development to ensure adequate water supplies.
- **CON Policy 4.1.3**: The City shall encourage water conservation design measures in residential, commercial and industrial development.
- **CON Policy 4.1.4**: The City shall promote the use of water efficient low flow fixtures.
- **CON Policy 4.1.5**: The City shall encourage the use of drought resistant landscaping.

- **CON Policy 4.1.6**: The City shall promote the use of reclaimed water, that has had pathogens removed for appropriate uses such as landscape irrigation systems.

To implement these policies the City shall:

- **CON Implementation Measure 95**: Work with appropriate agencies to maintain a leak detection program to eliminate water waste caused by leaking water lines and swimming pools.
- **CON Implementation Measure 96**: Work with appropriate agencies to monitor water usage to detect leaks based on historic use and to assess the effectiveness of water conservation programs.
- **CON Implementation Measure 97**: Support water pricing that provides incentives to use less water with appropriate exemptions for agricultural uses.
- **CON Implementation Measure 98**: Explore alternate methods of providing water service, including establishing an independent water district or municipal water utility.

5.9.1.2 EXISTING CONDITIONS

This section discusses the existing conditions related to hydrology and water quality. The data are based on information from the City of Malibu's General Plan.

On-Site Drainage and Surface Water Bodies

The Project Site consists of pervious and impervious surfaces. The MMHS and former JCES campuses are largely impervious, with pervious areas consisting of landscaped areas, the undeveloped land on the northern side of the Project Site, and sport fields. The area of the proposed bus barn is largely pervious.

A Jurisdictional Delineation Report (JD Report) was prepared for the Proposed Project to provide baseline data concerning the type and extent of water resources under the jurisdiction of the U.S. Army Corps of Engineers (USACE), the RWQCB, the California Department of Fish and Wildlife (CDFW), and the California Coastal Commission (CCC) (Psomas 2021a). The JD Report focused on the surface water features in the ESHA on the northern part of the Project Site. Potential jurisdictional features were mapped in the Project Site: Drainage 1, Drainage 2, and Basin. Figures 5.9-1a through 5.9-1c, *Jurisdictional Resources: Ordinary High-Water Mark*, and Figures 5.9-2a through 5.9-2c, *Jurisdictional Resources: Top of Bank/Riparian Canopy,* show the locations of these features and the water levels during ordinary high-water mark and at the top of the bank.

Drainage 1 is the unnamed blueline stream along the western side of the Project Site. The extent of Drainage 1 was delineated from the northern edge of the Project Site downstream to a corrugated pipe culvert passing under Morning View Drive. Based on aerial imagery and USGS topographic contours, this drainage continues primarily above ground until it is undergrounded at Pacific Coast Highway and discharges onto Zuma Beach to the Pacific Ocean, a traditional navigable water. Surface water and soil saturation were observed at the upstream end of the drainage. Drainage 1 is considered to exhibit more than ephemeral surface flow and is therefore considered a relatively permanent water and a water of the United States (WOTUS). Approximately 0.007 acre of the WOTUS in Drainage 1 is on-site.

Drainage 2 crosses an undeveloped field on the northern end of the Project Site, north of the athletic fields, and discharges into Drainage 1. No surface water or soil saturation was observed, and the drainage was unvegetated, which indicates that it does not support plant species that rely on consistent water. Drainage 2 appears to carry only ephemeral flow and is not considered jurisdictional nor a WOTUS.

The Basin is just north of the existing bus barn and drains into Drainage 1 via pipe culvert. Artificially constructed settling basins in dry land are not considered WOTUS. Because the Basin was artificially created and receives ephemeral surface flow only after rainfall events, it is not considered a WOTUS. The JD Report also reviewed two other drainages (Drainage 3 and 4) and a basin on the District property to the east of the Project Site (see Figure 3-3); however, these drainages are not within the Project boundaries (Psomas 2021a).

Drainage 1 contains riparian vegetation, which would have been denser prior to the 2018 Woolsey fire. The upstream end of Drainage 2 is visible on aerial imagery; however, its alignment is obscured as it crosses the field north of the campus baseball field. The concrete-lined portion of the channel is partially visible. Drainage 1 is mapped as a wetland and is considered a Palustrine wetland with scrub-shrub vegetation that is temporarily flooded. The JD Report further determined that all of the 0.007 acre of the WOTUS in Drainage 1 would be considered a wetland. A riverine feature crossing Via Cabrillo on the western side of the Project Site. Drainage 2 is not mapped. The drainages and the basins would be considered waters of the State. Drainage 1 corresponds to the Environmentally Sensitive Habitat Area (ESHA); Drainage 2 is the upper portion of the ESHA (Psomas 2021a, 2021c).

The topography in the Project Area gently slopes from the northeast to the southwest. Elevations are approximately 100 to 200 feet above mean sea level. Soils on-site are mapped as Cropley, coastal-Urban land Haploxererts complex, 0 to 30 percent slopes and Cropley, coastal-Xerorthents, landscaped-Urban land complex, 0 to 9 percent slopes. These soils are not listed as hydric on the National List for their soil survey area (Psomas 2021a). The MMHS campus is on the middle of three terraces. The terraces represent wave-cut platforms incised into bedrock or older surficial deposits. They are capped by marine shoreface deposits and nonmarine stream terrace alluvium and debris flow deposits. Most of the terrace surfaces near the site have been dissected by erosion to a greater or lesser extent, with subsequent deposits of clastic gravel, sand, silt, and clay in the eroded channels (Leighton 2021).

Drainage from the majority of the Project Site flows generally southward to a network of storm drain systems and catch basins that outlet through the curb face to the adjacent Morning View Drive. A portion of the Project Site (Parking Lot A and Tennis Courts) flows north to northwest to a natural drainage mapped on the City of Malibu's LCP ESHA Map. The ESHA is the sole major drainage feature within the Project Site. Stormwater from the undeveloped northern portion of the campus currently flows south through the MMHS campus and ESHA. The ESHA transports stormwater from within and outside of the Project Site. The contributing drainage providing stormwater runoff to the ESHA was determined to be 305 acres, originating in undeveloped mountainous areas that make up roughly half of the overall watershed area. The other half consists of mostly residential neighborhoods. Slopes range from 4 to 22 percent within the contributing drainage area. A 48-inch diameter storm drain inlet is at the terminus of Clover Heights Avenue on District property.

The City installed K-rails on Clover Heights Avenue on the northern end of the campus after the first major mudflow and before the February 6, 2019 rainfall event. After additional substantial rain events following the

2018 Woolsey Fire, stormwater and debris flows overtopped the K-rails, plugged the culvert, and overtopped the headwall. The majority of the flow broke out on the west side of the cul-de-sac, eroded the embankment, and deposited significant amounts of debris, sediment, cobble, and mudflow on the baseball field, tennis courts, and batting cage area on the north side of the campus. The flows also blocked a 24-inch drainage inlet on the westerly side of the tennis courts. Since those events, drainage diversion devices were installed along known flow paths to assist in the diversion of stormwater flows down Clover Heights Avenue; these are still in place. K-rails will be installed on Clover Heights Avenue prior to major storm events. A number of drainage diversion devices have been installed on-site, including K-rail barriers, earthen berm, gravel bag barriers, concrete channel with side walls, and debris rack cage to redirect stormwater and debris flows on-site. The Project Site is approximately 31 percent impervious and 69 percent pervious. The stormwater from the proposed bus barn site flows downhill in a southward direction.

5. Environmental Analysis
HYDROLOGY AND WATER QUALITY

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Figure 5.9-1a Jurisdictional Resources - Ordinary High Water Mark

Source: PSOMAS, 2021

5. Environmental Analysis
HYDROLOGY AND WATER QUALITY

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Figure 5.9-1b Jurisdictional Resources - Ordinary High Water Mark

Source: PSOMAS, 2021

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HYDROLOGY AND WATER QUALITY

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Figure 5.9-1c Jurisdictional Resources - Ordinary High Water Mark

Source: PSOMAS, 2021

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HYDROLOGY AND WATER QUALITY

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Figure 5.9-2a Jurisdictional Resources - Top of Bank/Riparian Canopy

Source: PSOMAS, 2021

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HYDROLOGY AND WATER QUALITY

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Figure 5.9-2b Jurisdictional Resources - Top of Bank/Riparian Canopy

Source: PSOMAS, 2021

5. Environmental Analysis
HYDROLOGY AND WATER QUALITY

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Figure 5.9-2c Jurisdictional Resources - Top of Bank/Riparian Canopy

Source: PSOMAS, 2021

5. Environmental Analysis
HYDROLOGY AND WATER QUALITY

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Regional Hydrology and Drainage

The Project Site is located about 0.25 mile northeast of Pacific Coast Highway and Zuma County Beach, on the southern flanks of the western portion of the Santa Monica Mountains. According to the Malibu General Plan, City of Malibu Watershed Locations Map, the majority of the Malibu Middle and High School (MMHS) campus is located within the Zuma Beach C Watershed, with a small area of the northern portion of the campus located within the Zuma Beach B Watershed. Both watersheds are within the Santa Monica Bay basin (Malibu 1995).

The Project Site is located within the Santa Monica Bay hydrologic unit, Point Dume hydrologic area, Zuma Canyon and Trancas Canyon subareas (numbers 404.36 and 404.37, respectively) (Caltrans 2021). Zuma Canyon Creek is less than 0.5 miles south of the Project Site. Zuma Creek is one of many north-south drainages originating in the Santa Monica Mountains, draining just east of Point Dume. From just north of Pacific Coast Highway, for several hundred meters, Zuma Creek is a riparian corridor. The mouth of Zuma Creek opens into a small estuary. Observed historical average annual precipitation in the area averages about 16 inches per year (California Energy Commission 2021).

The Project Site is within the Santa Monica Bay Watershed Management Area (WMA), which encompasses an area of 414 square miles. Its borders reach from the crest of the Santa Monica Mountains on the north and from the Ventura-Los Angeles County line to downtown Los Angeles. From there it extends south and west across the Los Angeles plain to include the area east of Ballona Creek and north of the Baldwin Hills. South of Ballona Creek, the natural drainage area is a narrow strip of wetlands between Playa del Rey and Palos Verdes. The WMA includes several watersheds, the two largest being Malibu Creek to the north (west) and Ballona Creek to the south. The Malibu Creek area contains mostly undeveloped mountain areas, large acreage residential properties, and many natural stream reaches, while Ballona Creek is predominantly channelized and highly developed with both residential and commercial properties (LARWQCB n.d.).

Surface Water Quality

Though relatively small in its size compared with watersheds in other parts of the country, the Santa Monica Bay WMA is composed of highly variable geologic and hydrologic characteristics, habitat features, and human activities. Almost every beneficial use defined in the Basin Plan is identified in water bodies somewhere in the WMA; however, many of these uses have been historically impaired.

The major sources of pollutants in Santa Monica Bay are the three POTWs. Pollutants from the minor National Pollutant Discharge Elimination System (NPDES) discharges have been estimated to contribute less than 2 percent of the total pollutants being discharged to the Bay (LARWQCB 2021).

A considerable number of monitoring programs have been implemented in the Santa Monica Bay WMA. Sampling efforts tend to center around assessing urban runoff effects in general along the coastline and areas surrounding POTWs' ocean outfalls. Four statewide monitoring programs—State Mussel Watch, Bay Protection and Toxic Cleanup, Coastal Fish Contamination Program, and Toxic Substances Monitoring—have focused on biological measurements as well. More recently, the state's Surface Water Ambient Monitoring Program has also collected chemical and biological data. The data from these programs indicate that in general the open coastline is much cleaner than the Santa Monica Bay's enclosed waters, except regarding

dichlorodiphenyltrichloroethane (DDT) and polychlorinated biphenyls (PCBs) on the Palos Verdes Shelf. Pollutants of particular concern are chlordane, DDT, copper, and zinc. The small coastal streams draining from the Santa Monica Mountains into the bay, as well as Ballona Creek, were sampled by SWAMP in 2003 to 2004. Nutrient problems were found at several drainages and many sites exhibited single sample exceedances of bacteria indicators. Metals generally did not exceed water quality objectives. Water toxicity was found at a few sites; the Index of Biological Integrity scores for benthic invertebrate health ranged from good to very poor (LARWQCB n.d.).

Urbanization has had a significant impact on the riparian and wetland resources of the watershed, primarily through filling, alteration of flows, and decrease in water quality. It is estimated that 95 percent of the historic wetlands of the Santa Monica Bay WMA have been destroyed, with the remaining wetlands significantly degraded (LARWQCB n.d.).

Groundwater

The Project Site is not located within a California Department of Water Resources delineated groundwater basin (DWR 2021). Leighton Consulting, Inc. performed subsurface investigations as part of the Geotechnical Exportation report prepared for the Proposed Project. The Geotechnical Exploration report found that groundwater was not encountered to the maximum depth drilled of approximately 46.5 feet below ground service (bgs). However, moist to very moist soils and bedrock were encountered within explored depths. Groundwater was encountered during the 2009 exploration of the Project Site at a depth of 48.5 feet bgs (an elevation of 46 feet above mean sea level).

Groundwater depth was measured in an existing four-inch diameter monitoring well (MW-2). The details of well construction are unknown, however the total depth measured was 77.4 feet bgs with a depth to static water level as 58.7 feet bgs corresponding to approximately Elevation of 52 feet above mean sea level. Seasonal fluctuations should be expected during periods of intense localized rainfall (Leighton 2021).

Groundwater Quality

Ten on-site wastewater treatment systems exist on the Project Site. Each of these systems service different areas and facilities on the campuses. These wastewater systems consist of septic tanks, distribution boxes, leach fields, and seepage pits. A typical septic system consists of one septic tank connected to several seepage pits. According to the 2011 Campus Improvement Project Draft EIR ("CIP Draft EIR") prepared for the Malibu Middle School and High School campus, the average wastewater flow while the school is in session was estimated to average about 15,000 gallons per day (gpd), with a maximum flow rate of 20,000 gpd. These systems are composed of pipelines to convey wastewater to tanks that discharge to seepage pits. A survey of existing pits showed several deficiencies and identified remediation. As a result of the survey, several of the existing seepage pits had their bottoms "raised" by filling in the lower reaches of the pits with a backfill of slurry concrete to meet the requirements for at least 10 feet of separation between the bottom of the seepage pits and depth to groundwater (depth of separation). The percolation rate for seepage pits was measured to range from 37 to 15,670 gpd (SMMUSD 2011).

Effluent concentrations for seven tanks were measured and ammonia was 32.5 to 118 mg/L. No untreated chemicals from science labs, water softener regeneration brines, excessive cleaning chemicals or other

nonstandard school operations are discharged to the OWTSs. Groundwater sampling was conducted in 2009 as part of the CIP Draft EIR. Results of the monitoring studies did not show any definite trends of wastewater effluent on groundwater quality. However, because the OWTSs have been in operation over 30 years and the total coliforms measurements ranged from 70 to 1,200 colonies per 100 milliliters, contamination of the shallow groundwater by the existing OWTSs cannot be eliminated.

In accordance with the State Water Resources Control Board (SWRCB) Resolution No. 88-63 (Sources of Drinking Water) followed by LARWQCB Resolution No. 89-03 (Incorporation of Sources of Drinking Water Policy into the Water Quality Control Plans (Basin Plans), all surface and ground waters of the state are considered suitable, or potentially suitable, for municipal or domestic water supply. Concentrations of barium, chromium, lead, and selenium exceeded the drinking water standard in one well; cadmium and nickel in two wells; and molybdenum in all eleven wells. Wells with the highest concentrations of metals and nitrogen compounds were located just up-gradient and down-gradient of OWTS number 4-. If groundwater flow is not from the northeast to the southwest and/or the fault zone affects groundwater flow across the Project Site, monitoring wells would not capture true effects of the OWTSs on groundwater quality. Additionally, some up-gradient monitoring wells were located very close to the OWTSs and could have been affected by effluent, thereby limiting their use in determining OWTS effects on groundwater quality.

The receiving water limitations include less than 1.1 MPN/100 mL total coliforms, fecal coliforms, and enterococcus; no more than 10 mg/L total- and nitrate-nitrogen; more than 250 mg/L sulfate; and pH 6.5 to 8.5. The receiving water for these criteria is the groundwater within 50 feet of the furthest extent of the disposal area or the property boundary, whichever is less. Currently, the OWTSs do not meet the total coliforms criteria. Compliance with the fecal coliforms, sulfate, and pH WDR criteria is unknown. Existing systems comply with the nitrate-nitrogen criteria (SMMUSD 2011).

Infiltration

A percolation test was conducted as part of the Geotechnical Exploration Report (contained in Appendix H to this DEIR), which found that measured infiltration rate to be 0.01 inch per hour tested at 10 to 15 feet below ground surface. Based on the results of the percolation test performed and the low permeability clay soil that underlies the site, infiltration is not considered feasible according to County requirements.

Dense sand found in several borings are cemented with iron oxide which decreases pore space between particles. As with other areas on this campus these sand zones have been determined to be limited in area representing channelization into the sediments as sea levels lowered over time. Infiltration into these channels may result in seepage downslope and off-site. The Project Site is predominately underlain by expansive clay (lean and fat), infiltration of stormwater may mound due to shallow bedrock and laterally migrate along clay beds or along bedrock contact activating expansive clay (Leighton 2021).

Flooding Hazards

Flooding

The Project Site is not located within the 100-year, or 500-year flood zone as defined by FEMA (FEMA 2021). However, the site is located within a zone in which flood hazards are undetermined but possible (SMMUSD 2011).

Other Flooding

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are predominately ocean waves generated by undersea large magnitude fault displacement or major ground movement. The Project Site is not located within a Tsunami Inundation area (Leighton 2021). Based on the City's Safety and Health Element, tsunami runup in along the coast near the Project Site would be approximately 5.1 feet and 8.7 feet during a 100-year return period wave and 500-year return period wave, respectively (Malibu 1995). The Project Site is approximately 90 feet above mean sea level (Leighton 2021). The Project Site is not located downstream of any dams or levees (DSOD 2021).

Mudflows and Debris Flows

A mudflow is a type of landslide that occurs when runoff saturates the ground. Soil that is dry during dry weather turns into a liquid solution that slides downhill. Mudflows typically cause more damage than clear-water flooding because debris-filled water moves with greater force. The Project Site is not located within an area mapped as potentially susceptible to seismically induced landslides. No landslides are mapped or known to exist at the Project Site or vicinity. Previous grading and construction at the Project Site have created stepped building pads and parking lots. The potential for seismically induced landslides at the Project Site is considered low (Leighton 2021). However, portions of the Project Site are in areas with possible collapsible soils (City of Malibu 1995).

As part of the Geotechnical Investigation, Leighton performed geologic reconnaissance to visually evaluate the areas impacted by debris flow and erosion that occurred after the Woolsey Fire during the November and December 2018 rain events at MMHS. During the rain event, a 48-inch-diameter storm drain at the cul-de-sac on Clover Heights Avenue was plugged with debris and debris flows overtopped the inlet structure, spilling onto the campus.

It is generally accepted that debris flows most commonly occur on slopes with gradients ranging from 26 to 45 degrees. The potential for debris flow depends on soil type, water content, and degree of vegetation in the source zone. Debris flows occurring in this area were the result of the Woolsey Fire where vegetation and structures were burned and stripped from the surrounding slopes. The loss of surficial support provided by vegetation and the accumulation of moisture from prolonged rain events in the loose and disturbed soil resulted in the debris flow.

Slopes with gradients between 11 and 26 degrees are recognized as transport zones across which debris flows generated from the upslope source areas are transported and where flow velocity remains relatively constant. In these areas, the loose soil and ash was stripped along the path of flow as observed in the narrow drainage

incisions, thereby increasing flow volume. Areas where the slope gradient is 11 degrees or flatter, i.e., the MMHS campus, are depositional areas where mud is deposited as the flow velocity decelerates.

The source zone (north of the campus) emanates from the northwesterly trending, steep sided canyons north of Cuthbert Road which lack vegetation and mature trees within the canyon. The transport zone is generally defined as the mouth of the canyon from approximately Cuthbert Road where debris flows blocked the road, down gradient to south of the intersection of Harvester Road and Clover Heights Avenue, an area of approximately 2,400 linear feet in length. The depositional zone is identified as the MMHS campus ballfields, immediately south of the northern chain link fence boundary down gradient to the debris basin in the southwest region of the parking lot, or a linear distance of approximately 1,100 feet Although there are relatively thick deposits of colluvium and ash on slopes above and surrounding the campus, the gradient of the flow pathway (depositional zone) as observed, not considering minor slopes, is relatively flat, approximately 5 degrees.

Potential debris and mud flows could emanate from the main and tributary canyon upslope of the campus located approximately 2,400 feet north of the campus and transported down gradient. Considering the two rainfall events that occurred in November and early December 2018 which resulted in deposition from upslope debris flows, Leighton does not anticipate a thick overburden of soil to remain on slopes in this area. Since the December 2018 debris flow the slopes above the campus have revegetated with light grasses and homes are being rebuilt and drainage pathways corrected.

The City of Malibu has prepared a Storm Preparation Plan in order to prevent potential damage from storm conditions, which can result in flooding, debris flows, landslides, coastal erosion, coastal structure damage, and more, particularly in canyons and burn areas. The City regularly performs precautionary measures, including:

- Cleaning and clearing all catch basins, pipes, culverts, and waterways of debris
- Checking flood control devices and valves
- Checking stream and creek banks
- Patching and filling cracks in pavement
- Trimming trees
- Securing signposts
- Stocking up on and staging materials and safety equipment, such as K-rails, sandbags, barricades, plastic sheeting, flashing beacons and traffic control devices, street signs, posts and hardware, and water pumping equipment

The City coordinates its preventative maintenance efforts with outside agencies, including the California Department of Transportation (Caltrans), Los Angeles County Flood Control District, Los Angeles County Public Works, Los Angeles County Beaches and Harbors, State Parks, National Parks, Army Corps of Engineers (USACE), Los Angeles County Sheriff Department (LASD), California Highway Patrol (CHP), and local utility

companies. Additionally, residents of Malibu are required to prepare their property to protect it from potential damage by cleaning storm drains and gutters, cleaning debris around their property, improving drainage and water issues around their property, checking for potential leaks in their roofs, restocking emergency kits and equipment with supplies for a minimum of three days, and obtaining and strategically deploying sandbags (available from the Los Angeles County Fire Department and Department of Beaches and Harbors) (City of Malibu 2021). However, based on the relatively gentle slope inclination (approximately 5 degrees) and long depositional zone (1,100 feet), which has a defined flow path, Leighton determined that the occurrence of a debris flow emanating from the source area to cause significant structural damage to the MMHS campus is low.

5.9.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

HYD-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

HYD-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

- i) Result in a substantial erosion or siltation on- or off-site.
- ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.
- iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- iv) Impede or redirect flood flows.

HYD-4 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The IS/NOP, included as Appendix B, substantiates that impacts associated with the following thresholds would be less than significant; therefore, these impacts will not be further addressed in this DEIR:

- Threshold HYD-1
- Threshold HYD-3(i)

- Threshold HYD-3(ii)
- Threshold HYD-5

Nevertheless, based on comments received on the Initial Study, the Thresholds HYD-1, HYD-03(i), and HYD-03(ii) are analyzed in this chapter. Impacts related to Threshold HYD-5 are addressed in Appendix B.

5.9.3 Environmental Impacts

5.9.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.9-1: The Proposed Project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. [Threshold HYD-1]

Construction

Construction of the Proposed Project would likely involve the use of some hazardous materials, such as vehicle fuels, lubricants, greases, and transmission fluids in construction equipment, and paints and coatings in building construction that could affect water quality. As discussed in Chapter 5-8, *Hazards and Hazardous Materials*, construction of the proposed project would not create a significant hazard through the transport, use or disposal of hazardous materials during construction. No significant hazardous materials are being used or stored that would be removed during construction. The use and storage of hazardous materials during construction would comply with U.S. Occupational Safety and Health Administration regulations, which ensure that such hazardous materials are properly handled on-site and would not enter stormwater or waterways.

Earthwork activities during construction may also cause erosion and generate sediment that can enter waterways. Prior to construction of each phase of the Proposed Project, the District would be required to prepare and implement site specific BMPs consistent with its Construction General NPDES Permit, Construction SWPPP, and MMC § 13.04.100, which are in place to control sediment and pollution from entering waterways. Additionally, each phase of the Proposed Project would be required to adhere MMC §§ 13.04.050 and 13.04.120, which require compliance with the Federal Clean Water Act and Municipal NPDES Permit. Groundwater is not anticipated to be encountered. While not anticipated, if dewatering during construction is needed, the Proposed Project would also be required to obtain a general permit for construction dewatering issued by the RWQCB. The construction of the Proposed Project therefore would not violate water quality standards or waste discharge requirements and would not otherwise substantially degrade water quality; a **less than significant impact** would occur.

Operation

The Project Site Hydrology Report (Psomas 2021c) evaluated existing stormwater drainage on-site to determine the capacity of the existing infrastructure and proposed on-site stormwater infrastructure to accommodate

stormwater from rain events. The Project Site is in the City of Malibu in Los Angeles County, and the City requires hydrologic calculations to be performed using the County methodology. Per county standards, the overall watershed was broken into 40-acre watersheds, and peak flows were calculated. Table 2-1 in the Project Site Hydrology Report (2021c) summarizes the hydrologic input (see Appendix J). A peak flow of 490 cubic feet per second for the 50-year 4th day storm event flows through the ESHA in the Project Site. Los Angeles County factors were used to establish the peak flow rates for other storm events based on the 50-year event. Table 2-2 in the Project Site Hydrology Report summarizes individual watershed peak discharges for various storm events, and Table 2-3 in the Project Site Hydrology Report summarizes the total peak flows within the ESHA. The Proposed Project would incorporate adequate stormwater treatment capacity as specified by the Project Site Hydrology Report and outlined in Chapter 3, Table 3-10, *Stormwater Treatment*.

The Project Site Hydrology Report further reviewed storm drain hydraulics in the ESHA to establish existing water surface elevations and existing flow velocities for various storm events. Under existing conditions, erosive velocities average six feet per second with an average depth of three feet during the 2-year storm event and eight feet per second with an average depth of five feet during the 50-year event. The model also indicates that flows for the design storm event are contained by the channel banks and do not overtop. The Proposed Project would not substantially contribute to stormwater velocities in the ESHA, and restoration of the ESHA as part of the Proposed Project would reduce stormwater velocities in the ESHA.

The phased storm drains would be designed to accommodate 50-year design storm peak flow rates, as shown in Table 3-11, *Storm Draining Size*, of Chapter 3. Therefore, the stormwater system on-site and stormwater improvements conducted as part of the Proposed Project would ensure that stormwater is adequately conveyed and would not violate water quality standards.

The RWQCB administers the NPDES permitting programs for the City of Malibu and is responsible for developing waste discharge requirements. Los Angeles RWQCB requirements include those requiring preparation and implementation of water quality management plan (WQMP) to control contaminants into storm drain systems, educate the public about stormwater impacts, detect and eliminate illicit discharges, control runoff from construction sites, and implement best management practices (BMPs) and site-specific runoff controls and treatments. Operation of the Proposed Project would have the potential to discharge sediment and pollutants to storm drains and receiving waters, thereby leading to a potential water quality impact. However, the Proposed Project includes the implementation of a stormwater system what would capture and treat stormwater on-site prior to being released to public storm drain systems. Stormwater infrastructure on-site would constructed along with each phase of the Proposed Project, which would ensure that each phase of the Proposed Project is adequately served by on-site stormwater system. Consistent with the MMC 13.04.120, prior to construction of each phase, a water quality management plan would be prepared, which would identify BMPs to ensure that on-site infrastructure and stormwater meet the stormwater on-site retention requirements and discharge requirements. The Proposed Project would be required to comply with the City's MS4 Permit and Municipal Code Chapter 13.04 (Stormwater Management and Discharge Control), which requires reduction of pollutants in stormwater to the maximum extent practical and prohibits the discharge of non-stormwaters unless covered by a separate NPDES permit or Water Board's conditional discharge exemption (13.04.030(A)(1) and 13.04.060(D)). The operation of the Proposed Project therefore would not violate water

quality standards or waste discharge requirements and would not otherwise substantially degrade water quality; a **less than significant impact** would occur.

Septic Upgrades

The Proposed Project would require decommissioning of existing septic systems and sizing and replacement with new septic system infrastructure. The decommissioning and installation of new septic systems would comply with all applicable state and local guidelines, including the Los Angeles County Department of Public Health and MMC. Chapter 15.40 of the MMC establishes standards for the siting, design, installation, operation, and maintenance of OWTS, which are adopted in compliance with the City's LCP and LIP to protect the overall quality of coastal waters and resources in the City and consistent with California Water Resources Control Board OWTS Policy and Los Angeles Regional Water Quality Control Board's Basin Plan. These standards apply to all existing, new, or replacement OWTS in the City. Additionally, plans for the on-site wastewater system would be submitted for review and approval by the County Department of Public Health (LADPH 2018). Compliance with regulatory requirements would ensure that no potential sewage or related contaminants are released from this activity.

The Proposed Project would include adequate infrastructure to serve the Project Site, including the reconfiguration of existing septic systems. The Project Site currently has 10 on-site waste treatment systems on the former JCES and MMHS campuses. As described in Section 5.15, *Utilities and Services Systems*, of this DEIR, the Proposed Project would remove septic systems 6 through 11 and would include the addition of five septic systems that would be developed under the Proposed Project. The proposed septic systems would include an appropriately sized two-compartment fiberglass septic tank. The location of the septic tanks and associated leach fields would be reviewed as part of each phase. However, the proposed septic systems would be designed and sited to avoid impacts to the ESHA, as all septic systems would be located more than 100 feet from the ESHA.

Decommissioning and modifications of the existing septic systems, and the addition of the replacement infrastructure would not be anticipated to disrupt service on the Project Site. Modifications to the wastewater and drainage system would have the capacity to adequately serve the Project Site during all phases of the Proposed Project, and Project-generated wastewater would be adequately treated. Therefore, the septic system upgrades would not violate any water quality standard or waste discharge requirements and would not substantially degrade surface or ground water quality; a **less than significant impact** would occur.

Impact 5.9-2: The Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Proposed Project may impede sustainable groundwater management of the basin. [Threshold HYD-2]

As discussed in Chapter 3, *Project Description*, the Proposed Project's potable water use, and fire water lines would connect to an existing public water main on Morning View Drive. Los Angeles County Waterworks District No. 29 provides potable water to the City of Malibu, including the Project Site. District No. 29 serves approximately 7,000 customers using imported water from the State Water Project and the Colorado River Aqueduct (LA County 2021). Following full buildout of the Project, water demands would not change from current conditions as operational characteristics (enrollment, staffing, fire needs) would be the same as current

operation. The Proposed Project does not receive its potable water needs from groundwater resource and would not substantially increase water demand. Therefore, operation of the Proposed Project would not substantially decrease groundwater supplies.

The MMHS and JCES campuses are largely developed with limited pervious surfaces. The Project Site is underlain by low permeability clay soil (Leighton 2021). Therefore, limited amounts of rainwater currently percolate to the groundwater on-site. Existing stormwater on the Project Site currently flows southward towards a network of storm drain systems and catch basins that outlet through the curb face to the adjacent Morning View Drive and to the existing ESHA. The Proposed Project would increase impervious surfaces on the Project Site compared to existing conditions. However, the minor increase in impervious surfaces would not interfere substantially with groundwater recharge. Similar to existing conditions, the stormwater generated under the Proposed Project would be directed to on-site stormwater infrastructure and be discharged to Morning View Drive and the ESHA.

Additionally, the likelihood of encountering groundwater during construction such that dewatering is necessary is low, since groundwater was not encountered during the maximum depth drilled of approximately 46.5 feet bgs and depth of groundwater is measured to be 77.4 feet bgs with depth of static water level at 58.7 feet bgs. As such, the Proposed Project would not interfere substantially with groundwater recharge.

Therefore, the Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge during operation or construction, and a **less than significant impact** would occur.

Impact 5.9-3: The Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner that would result in a substantial erosion or siltation on- or off-site. [Threshold HYD-3(i)]

Construction

Construction of the Proposed Project would occur over four phases. Phase 1 would develop approximately 4.47 acres of the JCES campus; Phase 2, Phase 3, and Phase 4 would develop approximately 3.78 acres, 3.51 acres, and 8.56 acres of the MMHS campus, respectively. Additionally, parking lot F and the bus barn would be constructed as part of Phase 3. Soils in the Project Site could experience erosion during construction of each phase due to natural processes, such as wind and rain, or by earthwork activities, such as grading and excavation. Prior to construction of each phase of the Proposed Project, the District would be required to prepare and implement site specific BMPs consistent with its Construction General NPDES Permit, Construction SWPPP, and MMC § 13.04.100, which are in place to control sediment and pollution from entering waterways. Additionally, each phase of the Proposed Project would be required to adhere MMC §§ 13.04.050 and 13.04.120, which require compliance with the Federal Clean Water Act and Municipal NPDES Permit. While not anticipated, if dewatering during construction is needed, the Proposed Project would also be required to obtain a general permit for construction dewatering issued by the RWQCB.

As such, construction of each phase of the Proposed Project would incorporate BMPs, including structural and non-structural strategies, to minimize pollution of stormwater with soil and sediment. Therefore,

compliance with federal, state, and local regulations would ensure that the Proposed Project would not result in substantial erosion or siltation on or off-site. A **less than significant impact** related to substantial erosion or siltation would occur during each phase of construction.

Operation

During operation, the Proposed Project would result in a minor increase to impervious surfaces compared to existing conditions and would result in alteration of the existing site's drainage patterns but not in a manner that would result in substantial erosion or siltation on or off-site. The Proposed Project would install new stormwater retention basins that would be developed to infiltrate and treat runoff from the Proposed Project. Stormwater from the Proposed Project would either drain to the existing ESHA via Clover Heights Avenue and the on-site drainage channel or to Morning View Drive, similar to existing conditions. Additionally, the Proposed Project would also restore the ESHA as described in Chapter 3, *Project Description*. Restoration activities would include removal of all hardscape within the 100-foot buffer for the ESHA. The District would conduct weed abatement, establish invasive plant controls, and introduce native seed and plant species within the ESHA and the proposed 50-foot buffer area, and implement erosion prevention and bank stability improvements as part of the restoration plan within District property. For the parking areas and trails within the ESHA's 100-foot buffer, the District would use permeable surface materials to increase infiltration.

The Project Site Hydrology Report found that the ESHA experiences erosive stormwater velocities under existing conditions. The Proposed Project would not substantially contribute to these stormwater velocities. Restoration of the ESHA as part of the Proposed Project would reduce stormwater velocities in the ESHA and thus reduce erosion potential along the ESHA on-site.

The Proposed Project would also be required to comply with local, state, and federal stormwater discharge amount and water quality. Consistent with the MMC § 13.04.120, prior to construction of each phase of the Proposed Project, a water quality management plan and a SWPPP would be prepared, which would identify BMPs to ensure that on-site infrastructure and stormwater meet the stormwater on-site retention requirements and discharge requirements. As further required under MMC § 13.04.120, since the Proposed Project is multi-phased, it would be required to comply with the standards and requirements of the section for each of the four phases by designing a system to satisfy the standards and requirement for the entire site during the first phase and implementing these standards and requirement for each phase of development or redevelopment of the site during the first phase or prior to commencement of construction of a later phase to the extent necessary to treat the stormwater from such later phase.

The Project Site would be divided into seven drainage management areas (DMA) that would coordinate drainage to Morning View Drive. New stormwater retention basins would be developed to infiltrate and treat runoff from the Proposed Project. As shown in Chapter 3, *Project Description*, Table 3-10, *Proposed Stormwater Management Systems*, stormwater infrastructure on-site would be developed as part of each phase, such that DMA A and B would be developed during Phase 1; DMA C would be developed during Phase 2; DMA D would be developed during Phase 3; and DMA E through G would be developed during Phase 4 (see Figure 3-8, *Conceptual Storm Drain and Water Quality: Phase 1*, and Figure 3-9, *Conceptual Storm Drain Water Quality: Phases 2–4)*. Drainage from the proposed bus barn site would direct flows to the existing storm drain system in the equestrian center. All DMAs and the drainage for the proposed bus barn site would be required to comply with

local and federal permits governing water quality and on-site stormwater capture and drainage, such as Los Angeles County Municipal Stormwater NPDES Permit and MMC §§ 13.04.050, -090, -110, and -120. The proposed Parking Lot F would be designed specifically to ensure minimal impacts related to stormwater flows/drainage and resulting erosion. Therefore, operation of each phase would be adequately served by stormwater infrastructure for the respective DMA. No discretionary permit be issued until the City's authorized enforcement officer confirms that the Project plans comply with the applicable stormwater mitigation plans and design criteria requirements.

Implementation of the proposed stormwater infrastructure, ESHA restoration (e.g., the erosion prevention and bank stability improvements), and compliance with federal, state, and local regulations would ensure that the Proposed Project would not result in substantial erosion or siltation on or off-site. A **less than significant impact** related to substantial erosion or siltation would occur during the operation of the Proposed Project.

Impact 5.9-4: The Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner that would substantially increase the rate or amount of surface runoff which would result in flooding on- or offsite. [Threshold HYD-3(ii)]

As stated under Impact 5.9-3, above, the Proposed Project would increase impervious surfaces on the Project Site compared to existing conditions and would install stormwater infrastructure on the Project Site. The Proposed Project would include a new stormwater system that would retain, infiltrate, and treat stormwater on the Project Site. Similar to existing conditions, the Proposed Project would continue to drain stormwater to the ESHA and to storm water infrastructure on Morning View Drive. Project design features, such as stormwater pipe sizing and stormwater treatment capacities, and restoration of the ESHA, including permeable surface material within the ESHA's 100-foot buffer, would ensure that the Proposed Project does not substantially increase the rate or amount of surface runoff in a manner that leads to on- or off-site flooding.

The Proposed Project would also be required to comply with all local, state, and federals regulating stormwater runoff. Pursuant to MMC § 13.04.120, the Proposed Project would be designed to control runoff volume and would be required to implement a water quality mitigation plan that retains stormwater runoff on-site from either an 85 percentile 24-hour runoff event or the volume of runoff produced from a three-quarter inch, 24-hour rain event, whichever is greater. The Proposed Project would implement a WQMP and a SWPPP during construction and operation consistent with state and local regulations, including the County's NPDES permit, that would include the installation of BMPs. Each phase of Proposed Project would be required to meet the standards and requirements for stormwater retention, treatment, and discharge. The Proposed Project would not result in flooding on or off-site. A **less than significant impact** related to flooding on- or off-site would occur.

Impact 5.9-5: The Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. [Threshold HYD-3(iii)]

Construction

Construction of the Proposed Project would temporarily introduce potential sources of pollution on-site, such as oils, paints, solvents, and gasoline, that are typical of construction activities. As further discussed in Chapter 5.8, *Hazards and Hazardous Materials*, equipment and potentially hazardous materials would be maintained and stored in accordance with manufacturer instructions. The Proposed Project would be required to prepare and implement a BMPs consistent with its Construction General NPDES Permit, Municipal NPDES Permit, Construction SWPPP. BMPs include structural and non-structural strategies to minimize pollution of stormwater.

Therefore, compliance with federal, state, and local regulations and implementation of best management practices would ensure that the Proposed Project would not result in substantial additional sources of polluted runoff during construction. A **less than significant impact** related to substantial additional sources of polluted runoff would occur during each construction phase.

Operation

The Proposed Project would increase impervious surfaces on the Project Site compared to existing conditions and would implement a stormwater system on-site that would alter the existing drainage pattern on the Project Site. As discussed under Impact 5.9-3, the Proposed Project would have a stormwater drainage system on-site, which would include stormwater retention basins that would be developed to infiltrate and treat runoff from the Proposed Project consistent with MCC § 13.04.120 requirement of either an 85 percentile 24-hour runoff event or the volume of runoff produced from a three-quarter inch, 24-hour rain event, whichever is greater. The Proposed Project would adhere to a WQMP and SWPPP prepared for the operation of the Proposed Project, which would incorporate best management practices. As such, stormwater entering the ESHA and storm drains on Morning View Drive would be treated. Each phase of the Proposed Project would be required to comply with the standards and requirements of MCC § 13.04.120 for all of its phases by designing a system to satisfy the standards and requirement for the entire site during the first phase and implementing these standards and requirement for each phase of development or redevelopment of the site during the first phase or prior to commencement of construction of a later phase to the extent necessary to treat the stormwater from such later phase. Additionally, in compliance with SUSMP requirements, the Proposed Project's on-site stormwater drainage system would be designed to adequately store and convey stormwater runoff from the Project Site and there would be no net increase in stormwater runoff to the off-site storm drain system.

Further, the Proposed Project is a school project and would include potential sources of pollution typical of school uses, such as chemicals used for educational purposes; oils, gasoline, chlorine, paints, and solvents for ongoing maintenance of the campus and buses, and pesticides and fertilizers landscaping on-site. These potential materials would be stored and handling in accordance with manufacturer specifications and is not expected to generate substantial new sources of pollution (see Chapter 5.8, *Hazards and Hazardous Materials*).

Additionally, the operation and use of the new septic systems on-site would comply with the City and County's requirements and procedures for septic systems and OWTS. Compliance with local and state requirements would ensure that on-site septic systems would not generate pollution which could enter stormwater runoff.

Therefore, compliance with federal, state, and local regulations and implementation of best management practices would ensure that the Proposed Project would not alter existing drainage patterns in a manner that would result in substantial additional sources of polluted runoff during operation. A **less than significant impact** related to substantial additional sources of polluted runoff would occur during the operation of the Proposed Project.

Debris/Mud Flow

During certain rain events in existing conditions, debris and mud flows emanate from the main and tributary canyon upslope of the Project Site located approximately 2,400 feet north of the Project Site and transported down gradient. Two rainfall events that occurred in November and early December 2018 after the Woolsey Fire resulted in debris flows such that there is limited unconsolidated soil remaining on the slopes north of the Project Site in this area. Since the December 2018 debris flow the slopes have revegetated with light grasses, homes are being rebuilt, and drainage pathways corrected, all of which minimize potential debris flows during rain events. As discussed in Section 5.9.1.2, above, the District installed emergency drainage improvements on the campus following the mudflow events, including earthen berm, gravel bag barriers, concrete channel with side walls, and debris rack cage. Additionally, the District will install K-rails on Clover Heights Avenue prior to any forecast significant rain event.

Construction of the Proposed Project would install new stormwater and drainage system on-site and incorporate best management practices. The Proposed Project would not contribute to a substantial additional source of polluted runoff due to debris or mudflow, and a **less than significant impact** would occur.

Impact 5.9-6: The Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner that would impede or redirect flood flows. [Threshold HYD-3(iv)]

As discussed in Section 5.6.1, the Project Site is located within an area of minimal flood hazard but would not be subject to flooding from a 100-year or 500-year storm event (FEMA 2021). Therefore, construction and operation of the Proposed Project would not impede or redirect flood flows, and impacts would be **less than significant.**

Impact 5.9-7: The Proposed Project would not risk release of pollutants due to Project inundation due to flooding, tsunami or seiche. [Threshold HYD-4]

As discussed in Section 5.6.1, the Project Site is located within an area of minimal flood hazard but would not be subject to flooding from a 100-year or 500-year storm event (FEMA 2021). The Project Site is also not within an area subject to tsunami nor seiches (Leighton 2021; DSOD 2021). All chemicals and potentially hazardous materials on-site would be stored, used, and transported in compliance with local, state, and federal regulations. Therefore, the Proposed Project would result in **no impact** related to release of pollutants due to Project inundation from flooding, tsunami, and seiche.

5.9.4 Mitigation Measures

Project design features and compliance with federal, state, and local laws and regulations would ensure that the Proposed Project would result in a less than significant impact prior to mitigation. No mitigation measures are necessary.

5.9.5 Level of Significance After Mitigation

The Proposed Project results in a less than significant impact prior to mitigation.

5.9.6 Cumulative Impacts

The area considered for cumulative hydrology, drainage, and flood hazard impacts is the Santa Monica Bay Watershed. New projects in the area, both individually and cumulatively, could increase the impervious surface areas, increase the volume of stormwater runoff, and contribute to pollutant loading in the storm drain system with discharge to creeks and ultimately to the Pacific Ocean. However, as with the Proposed Project, future projects within the City of Malibu and Los Angeles County would be required to comply with drainage and grading regulations and ordinances that control runoff and regulate water quality at each development site. New development and redevelopment projects would be required to demonstrate that stormwater volumes could be managed by on-site and downstream conveyance facilities and would not induce flooding. New projects also would be required to comply with local, state, and federal regulating stormwater discharge during construction (such as a Construction SWPPP) and operation (such as a WQMP) and water quality.

The projects would be subject to review and approval by the appropriate City or the County to ensure that appropriate BMPs and treatment measures are implemented to reduce pollutants in stormwater and avoid adverse impacts to surface water quality. New development and certain redevelopment projects are required to retain and treat a specified volume of stormwater runoff on-site through incorporation of BMPs so that stormwater volumes. As described above, with the implementation of the BMPs, the Proposed Project would not substantially increase the amount of stormwater runoff and pollutants currently entering the storm drain system from this Project Site under existing baseline conditions with the implementation of required BMPs and stormwater treatment measures.

Other cumulative projects may be proposed in 100-year flood zones. Local jurisdictions regulate development in such zones both for public safety and to prevent changes to flood flows. Therefore, cumulative impacts to hydrology and water quality would not be cumulatively considerable and would be less than significant.

5.9.7 References

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5.10 LAND USE AND PLANNING

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to land use from implementation of the Malibu Middle and High School (MMHS) Campus Specific Plan Project (Proposed Project).

Land use impacts can be either direct or indirect. Direct impacts are those that result in land use incompatibilities, division of neighborhoods or communities, or interference with other land use plans adopted for the purpose of avoiding or mitigating an environmental effect, including habitat for wildlife conservation plans. This section focuses on direct land use impacts. Indirect impacts are secondary effects resulting from land use policy implementation, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other sections of this DEIR.

One comment letter was received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project by the City of Malibu regarding the Proposed Project's potential conflicts with the City of Malibu's Local Costal Program (LCP), which is evaluated in this section below. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.10.1 Environmental Setting

5.10.1.1 REGULATORY BACKGROUND

State, and local laws, regulations, plans, or guidelines related to land use and planning that are applicable to the Proposed Project are summarized below.

State

California Coastal Act of 1976

The California Coastal Act of 1976 (CCA) is the permanent enacting law approved by the State Legislature. The CCA established a set of policies, coastal boundary lines, and permitting procedures regulating coastal development. Further, it provides for the transfer of permitting authority, with certain limitations reserved for the state, to local governments through adoption and certification of the LCP by the California Coastal Commission (CCC).

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC.

Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plans

The LUP identifies the following policies related to land use (City of Malibu 2002b):

Chapter 5: New Development

- **LUP Policy 5.1** - All development that requires a coastal development permit is subject to written findings by the City's decision making body for coastal development permits (Planning Manager, Planning Commission, or City Council, as appropriate) that it is consistent with all Land Use Plan (LUP) policies and Local Implementation Plan (LIP) provisions of the City's certified Local Coastal Program. (Resolution No. 07-04)

- **LUP Policy 5.2** - If there is a conflict between a provision of this LCP and a provision of the General Plan, or any other City-adopted plan, resolution, or ordinance not included in the LCP, and it is not possible for the development to comply with both the LCP and such other plan, resolution or ordinance, the LCP shall take precedence and the development shall not be approved unless it complies with the LCP provision.

- **LUP Policy 5.4** - Off-street parking shall be provided for all new development in accordance with the ordinances contained in the LCP to assure there is adequate public access to coastal resources. A modification in the required parking standards through the variance process shall not be approved unless the City makes findings that the provision of fewer parking spaces will not result in adverse impacts to public access.

- **LUP Policy 5.5** - The Environmental Review Board shall review and make written recommendations on development proposals within or adjacent to ESHA or other areas containing ESHA as identified through a biological study. The decision-making body (Planning Manager, Planning Commission, or City Council) shall make written findings relative to the project's conformance with the recommendations of the Environmental Review Board. (Resolution No. 07-04)

- **LUP Policy 5.6** - Protection of ESHA and public access shall take priority over other development standards and where there is any conflict between general development standards and ESHA and/or public access protection, the standards that are most protective of ESHA and public access shall have precedence.

- **LUP Policy 5.7** - New development shall conform to the hillside management provisions of the LIP, including measures to minimize impacts to scenic and visual resources and to minimize the risk from hazards. The measures include but are not limited to limiting grading and retaining walls, restricting development on steep slopes, protecting ridgelines, and applying siting and design restrictions (scenic and visual policies). The slope density criteria of the subdivision ordinance shall apply to sloping terrain and be applied in combination with the base land use designation in order to determine the maximum allowable density.

Local Coastal Program's Local Implementation Plan

Section 3.9: Institutional Development Standards

A. All institutional development shall be subject to the following development standards:

1. Height.
   a. Structures shall not exceed a maximum height of 18 feet above natural or finished grade, whichever results in a lower building height, except for chimneys, rooftop antenna, and light standards. The maximum height of the structure may be increased up to 28 feet for a flat or pitched roof if approved through a site plan review pursuant to § 13.27 of the Malibu LIP.

   b. Flagpoles, satellite dishes, safety railings, elevator shafts, stairwells, church spires, and belfries may be increased up to a maximum of 35 feet if approved through a site plan review pursuant to § 13.27 of the Malibu LIP. Roof-mounted mechanical equipment shall be integrated into the roof design, screened, and may project no more than two feet higher than the structure roof height (screens included) if approved through a site plan review pursuant to § 13.27 of the Malibu LIP.

   c. In no event shall the maximum number of stories above grade be greater than two.

   d. Sports field lighting shall be limited to the main sports field at Malibu High School and subject to the standards of LIP §§ 4.6.2 and 6.5.G.

2. Yards/Setbacks.
   a. Front yard setbacks shall be 10 feet from the street easement.

   b. Side yard setbacks shall be 5 feet; however, when an institutional use is adjacent to a residentially-zoned parcel(s) along a side yard, the setback shall be increased to 10% of the lot width or 10 feet, whichever is greater.

   c. Rear yard setbacks shall be 5 feet; however, when an institutional use is adjacent to a residentially-zoned parcel(s) along the rear yard, the setback shall be increased to 15% of the lot depth or 15 feet, whichever is greater.

3. Site Development Criteria. All proposed institutional construction shall comply with the following site development standards:
   a. Structure Size. The gross floor area of all buildings on a given parcel shall be limited to a maximum Floor Area Ratio (FAR) of 0.15, or 15% of the lot area (excluding slopes equal to or greater than 1:1 and street easements). Additional gross floor area may be approved by the City Council, up to the maximum allowed for the parcel under the Land Use Plan, where additional significant public benefits and amenities are provided as part of the project.

   b. Landscaping and Site Permeability. 25% of the lot area (excluding slopes equal to or greater than 1:1 and street easements) shall be devoted to landscaping. The required 5 foot landscape buffer around the perimeter of parking areas pursuant to § 3.14.5(E)(1) of the Malibu LIP shall count toward the 25% requirement. An additional 5% of the lot area (excluding slopes equal to or greater than 1:1 and street easements) shall be devoted to permeable surfaces.

B. Determinations regarding lot widths and depths for irregularly shaped parcels, permitted driveway paths, building area and FAR, infill lots and yards shall be made by the Planning Manager, consistent with all applicable certified Local Coastal Program policies and development standards. (Ord. 373 § 3, 2013)

City of Malibu Municipal Code

The Zoning Regulations (Title 17 of the Malibu Municipal Code), in conformance with the General Plan, regulate land use development in the city of Malibu. In each zoning designation, the regulations specify the permitted and prohibited uses and the development standards, including setbacks, height, parking, and design standards. The Project Site is located within the Institutional District Zone that authorizes public educational institutions with a conditional use permit.

Environmentally Sensitive Habitat Area

The City of Malibu maintains policies to protect environmentally sensitive habitat areas (ESHAs) within city limits, and new developments must be sited and designed to minimize impacts to the ESHA. Pursuant to § 4.3(C) of the Malibu LCP LIP, mapped ESHA areas within Malibu, including streams, are subject to ESHA provisions as follows:

> The ESHA overlay provisions shall apply to those areas designated environmentally sensitive habitat area on the Malibu LIP ESHA overlay map and those areas within 200 feet of designated ESHA. Additionally, those areas not mapped as ESHA, but found to be ESHA under the provisions of § 4.3 of the Malibu LIP shall also be subject to these provisions.
>
> Section 4.6.1(A) of the LIP provides for buffer around native stream vegetation:

New development shall provide a buffer of no less than 100 feet in width from the outer edge of the canopy of riparian vegetation. Where riparian vegetation is not present, the buffer shall be measured from the outer edge of the bank of the subject stream.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 1. Land Use Element

The General Plan's Land Use Element establishes a pattern of land use and identifies the standards and serves as guidance for future development in the city. It promotes a balanced and functional mix of land uses, guides public and private investment, reflects land use opportunities and constraints identified in other General Plan elements, and reduces hazards (City of Malibu 1995). The Land Use Element identifies seven goals for future development in the city:

- **LU Goal 1 -** The natural and environmental resources of Malibu are protected and enhanced.
- **LU Goal 2 -** Manage growth to preserve a rural community character.
- **LU Goal 3 -** Recreational opportunities consistent with the protection of the natural resources and residential character of Malibu.

- **LU Goal 4 -** Commercial uses and structures in harmony with the rural residential character and natural environment of the community.
- **LU Goal 5 -** Protect agriculture which requires or is enhanced by Malibu's unique climate.
- **LU Goal 6 -** Private property rights protected.
- **LU Goal 7 -** Development of land adjacent to Malibu is compatible with the natural environment, residential character, and infrastructure of the city.

Land Use Policy Map

The Land Use Policy Map for the City of Malibu illustrates the distribution of land use designations geographically throughout the city, including the location and extent of these designations (City of Malibu 1995).

5.10.1.2 EXISTING CONDITIONS

The Project Site is located within the Zuma Beach area in the Malibu Park neighborhood. As shown in Table 5.10-1, *Existing Assessor's Parcel Map Numbers Within the Project Site*, the approximately 87-acre Project Site comprises the existing MMHS campus, the former Juan Cabrillo Elementary School (JCES) campus, and Malibu Equestrian Park (see Figure 4-1, *Existing Project Site Buildings and Facilities*). The combined former JCES and MMHS campus contain 203,734 square feet of developed structures, including student areas, athletic fields, and parking areas. The Project Site where Project components would occur consists of 52.03 acres of the total 86.97 acres of District-owned property.

Table 5.10-1 Existing Assessor's Parcel Map Numbers Within the Project Site

APN Number	Size (acres)
4469-017-900[1] To Be Merged	40.06
4469-018-900	2.49
4469-018-901	2.44
4469-018-902	2.67
4469-018-903[1] To Be Merged	9.4
4469-018-904[1] Equestrian Park (to include bus barn in Phase 4)	2.57
4469-019-900	4.05
4469-019-901	5.54
4469-019-902	17.47
Total District-Owned Acreage	**86.69**
Total Project Site	**52.03**

Source: Los Angeles County Department of Regional Planning 2020
[1] APNs included as part of the Project Site.

MMHS and JCES Campus

The Project Site consists of the existing Malibu Equestrian Park (equestrian center) in the eastern portion of the property, the existing MMHS campus in the center of the property, and the former JCES campus in the western portion of the property. As described in Chapter 3, *Project Description*, the Project Site is located within

three of the nine District-owned parcels, including Assessor's Parcel Numbers (APNs) 4469-017-900 (40.06 acres), 4469-018-903 (9.4 acres), and 4469-018-904 (2.57 acres), in the city of Malibu.

The MMHS campus covers approximately 34 acres of the overall District property. The MMHS campus currently has 60 classrooms (including 12 portable classrooms); a library, auditorium, and administrative offices; an athletic field, 2 gymnasiums, a pool, 9 basketball courts, and 4 tennis courts; and parking for 282 vehicles in three parking lots. Additionally, the newly constructed Buildings A/B and E would remain, with no improvements included as part of the Proposed Project.

The former JCES campus covers approximately six acres and is north of Morning View Drive and west of the MMHS campus. JCES formerly served elementary school grades K-5. Currently, middle school students use the portable classrooms, and high school students use Building F, and no other JCES rooms are currently being used.

There are currently two main points of vehicular entry into the MMHS and former JCES campuses. The first entry is along the eastern edge of the campus from Morning View Drive. The second point of entry is at the access road between the former JCES campus and the MMHS campus. This entry is a service access point and provides access to the Bus Barn, Maintenance and Operations Warehouse, and Student Parking Lot A. There are currently five parking lots with a total of 375 parking spaces.

Student drop-off/pick-up for the Middle School currently occurs in Parking Lot E (150-Space Parking Lot), while drop-off/pick-up for the High School Students occurs in the JCES Parking Lot. Sidewalks are provided on both sides of Morning View Drive from State Route 1 (SR-1), also known as Pacific Coast Highway (PCH), north to the western end of the former JCES campus. There are currently three crosswalks along Morning View Drive that provide access to the former JCES and MMHS campuses from the south side of the street. No parking is allowed along Morning View Drive.

Equestrian Facility

The Project Site includes the existing Malibu Equestrian Park in the eastern portion of the property. The equestrian center is east of current Parking Lot E and is surrounded by single-family residences to the east and south and open space to the north. The facility contains two riding arenas, a picnic area, and restrooms. The facility is used for private horse shows and lessons and is also open to the public for practice and recreational riding (City of Malibu 2021).

Surrounding Land Uses

Land uses surrounding the Project Site include properties that are zoned Rural Residential (RR). These parcels are primarily developed with residential properties on lots that range between one and two acres. Single-family homes are located to the north, west, and south, and vacant land to the east of the Project Site. The entirety of the District-owned property, including the former JCES campus, the MMHS campus, and the Equestrian Park, is zoned for Institutional uses. SR-1 (also known as PCH) and Zuma Beach are approximately 0.2 and 0.25 mile south of the Project Site, respectively.

Site Topography

The Project Site is on the southern flanks of the western portion of the Santa Monica Mountains. Maximum topographic relief on-site is approximately 94 feet, with elevations ranging from 86 to 180 feet above mean sea level. The campus consists of several near-level pad areas with generally ascending slopes to the north and descending slopes to the PCH to the south. On the MMHS campus, the street-level pad contains the recently constructed MMHS administration, library, and classroom buildings (Buildings A/B); the under-construction Lower Parking Lot; and an outdoor courtyard, cafeteria, and auditorium. On the former JCES campus, the pad contains the administration building, the kindergarten classroom, the special education classrooms, and the JCES Parking Lot. The next pad to the northwest contains the newer and old gymnasiums, outdoor basketball courts and swimming pool, the Boys & Girls Club of Malibu facility, and the Bus Barn and Parking Lot A on the MMHS campus, as well as the multipurpose room, the library, and three educational buildings on the former JCES campus. The third pad contains the Main Sports Field and the 150-Space Parking Lot. The fourth contains the tennis courts and baseball diamonds. The fifth and highest pad contains Parking Lot A (the 150-Space Parking Lot). Each terrace is accessible via stairs and handicap-accessible ramps. From street level on Morning View Drive, views of the development on the elevated terraces are limited.

Environmentally Sensitive Habitat Area

There is very little natural vegetation on-site, consisting primarily of grasses, ivy, brush, shrubs, and scattered ornamental and native trees. The City of Malibu's ESHA Map shows a stream approximately 400 feet northwest of the campus. The stream consists of an underground pipe from Floris Heights Road that flows under the school property and daylights into a natural streambed to the south of the school property. The stream extends for approximately 1,088 feet and varies between approximately 24 and 85 feet wide. the stream course is deeply incised with steep banks. The top of the southeast bank extends significantly higher than the northwest bank because it is located immediately adjacent to the campus.

5.10.2 Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project would:

LU-1 Physically divide an established community.

LU-2 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.

The IS/NOP, included as DEIR Appendix B, substantiates that impacts associated with the following thresholds would be less than significant; therefore, these impacts will not be further addressed in this DEIR:

- Threshold LU-1

5.10.3 Environmental Impacts

5.10.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.10-1: Project implementation would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect. [Threshold LU-2]

The Project Site is designated Institutional (I), which accommodates existing public and quasi-public facilities, such as educational facilities. The Proposed Project would redevelop and modernize the existing MMHS campus and former JCES campus to create three distinct areas: Middle School Core, High School Core, and shared facilities. The existing Building E and Buildings A/B at the MMHS Campus would remain, with all other structures removed. No changes to the existing main sports field, baseball, or softball fields would occur except for the development of new field houses and additional parking adjacent to the softball field. The Proposed Project would result in 32 classrooms and 8 labs and a total of 190,967 square feet of building space, providing the MMHS campus with a total of 47 classrooms and 12 labs and a total of 222,425 square feet of building space (see details in Chapter 3, *Project Description*). A review of the Proposed Project's consistency with applicable plans and policies is provided here. The Proposed Project would also require a merger of two District-owned parcels: APNs 4469-017-900 (40.06 acres) and 4469-018-903 (9.4 acres).

Policy Consistency

The Proposed Project would be consistent with the goals and policies identified in the General Plan's Land Use Element, the City's LCP, and the City's Municipal Code that have been adopted for the purposes of avoiding or mitigating environmental impacts.

Malibu General Plan – Land Use Element

Table 5.10-2, *General Plan Relevance/Consistency*, shows a detailed analysis of the Proposed Project's consistency with the applicable policies from the General Plan's Land Use Element.

Table 5.10-2 General Plan Relevance/Consistency

General Plan Policies	Relevance/Consistency
LU Policy 1.1.1: The City shall protect the natural environment by regulating design and permitting only land uses compatible with the natural environment.	**Consistent.** Implementation of the Proposed Project would not result in a new land use on-site that would be incompatible with the natural environment. The Proposed Project would redevelop and modernize the existing MMHS campus and former JCES campus to provide increased resources for the campus. The Project Site is entirely zoned Institutional, which authorizes public school uses through the CDP and other entitlement processes. The Proposed Project is entirely for public school uses. The natural environment is protected by the institutional zoning and entitlement requirements.
LU Policy 1.1.4: The City shall preserve the City's rural residential character.	**Consistent.** Implementation of the Proposed Project would redevelop and modernize buildings within an existing school site. The institutional land use would remain the same. The Proposed Project would not impede upon the surrounding rural residential character. The Proposed Project's lighting program would be consistent with the

Table 5.10-2 General Plan Relevance/Consistency

General Plan Policies	Relevance/Consistency
	existing lighting program on the MMHS campus and the City of Malibu's Dark Sky Ordinance. All campus lighting would be designed to provide for the security and safety of students, staff, and visitors. The Project Site is entirely zoned institutional, which authorizes public school uses through the CDP and other entitlement processes. The Proposed Project is entirely for public school uses. The rural residential character of the adjacent neighborhood is protected by the institutional zoning and entitlement requirements.
LU Policy 1.1.5: The City shall require careful site planning which blends development with the natural topography.	**Consistent.** The topography of the campus slopes up north from Morning View Drive. The existing topography of the site would not be substantially altered as the Proposed Project would be designed to be consistent with the natural topography of the site.
LU Policy 1.2.1: The City shall prohibit development in Environmentally Sensitive Habitat Areas (ESHA) unless no feasible alternative is available.	**Consistent.** As discussed previously as part of the Restoration Plan for the ESHA, the Proposed Project would remove existing parking and drive aisles and maintain a 50-foot buffer from ESHA except for a meandering deconstructed granite walking path adjacent to the ESHA for instructional stations. Therefore, no development would occur in the ESHA.
LU Policy 1.4.1: The City shall preserve significant ridgelines and other significant topographic features (such as canyons, knolls, hills, and promontories).	**Consistent.** The Project Site is set amid rolling hills, and its buildings and athletic fields are terraced into its hillside setting. The existing topography of the site would be maintained, and no significant topographic features would be altered because of the Proposed Project's implementation.
LU Policy 2.1.4: The City shall require development to be landscaped so that the project blends in with the environment and neighborhood.	**Consistent.** The Proposed Project is a redevelopment and modernization of an existing public educational use. New development would be designed and landscaped in a manner that preserves the existing topography, incorporates sustainable building practices, maintains open spaces, and reflects the rural community character of Malibu. Landscaping would be provided along pathways, building perimeters, and within and around new parking lot areas.
LU Policy 2.2.1: The City shall require adequate infrastructure, including but not limited to roads, water, and wastewater disposal capacity, as a condition of proposed development.	**Consistent.** The Proposed Project will include adequate infrastructure to serve the MMHS campus. The future on-site utilities would connect to existing facilities serving the site. The Proposed Project's modifications to the wastewater and drainage system will adequately serve the MMHS campus.
LU Policy 2.3.1: The City shall protect and preserve the unique character of Malibu's many distinct neighborhoods.	**Consistent.** Implementation of the Proposed Project would modernize and renovate buildings within an existing school site. The Proposed Project is consistent with similar modern school facilities and the design limits its scale and massing to blend with the surrounding topography and buildings. The Project Site is entirely zoned Institutional, which authorizes public school uses through the CDP and other entitlement processes. The Proposed Project is entirely for public school uses. The unique character of Malibu's neighborhoods is protected by the institutional zoning and entitlement requirements.
LU Policy 2.4.2: The City shall limit nonresidential uses to those compatible with the rural residential character of the surrounding neighborhoods.	**Consistent.** The Proposed Project would continue the existing public educational use for the site. The existing topography of the site would not be altered because of project implementation. The Proposed Project would blend and preserve the rural qualities of the community, including the maintenance of open space areas for equestrian and trail uses. The Project Site is entirely zoned Institutional, which authorizes public school uses through the CDP and other entitlement processes. The Proposed Project is entirely for public school uses. The rural residential character of the adjacent neighborhood is protected by the institutional zoning and entitlement requirements.
LU Policy 2.4.6: The City shall avoid improvements which create a suburban atmosphere such as sidewalks and streetlights.	**Consistent.** The Proposed Project would not create new sidewalks. However, the Proposed Project would include lighting on the existing and new campus parking lots, pedestrian pathways, pool lighting, and other nighttime security- and safety-required lighting, generally consistent with existing conditions. Pool lighting would be regulated by the requirements of California Building Code (CBC) § 3115B.1, requiring sufficient illumination that lifeguards have direct view of all areas of the pool surface and diving

Table 5.10-2 General Plan Relevance/Consistency

General Plan Policies	Relevance/Consistency
	appurtenances. The Proposed Project's lighting program would be consistent with the City of Malibu's Dark Sky Ordinance. The Proposed Project would not change or modify the restrictions imposed on the Athletic Field lighting (CDP 12-024), or the lighting associated with the 150-space Parking Lot A under the existing CDP (CDP No. A-MAL-13-030). The Project Site is entirely zoned institutional, which authorizes public school uses through the CDP and other entitlement processes. The Proposed Project is entirely for public school uses. Elements that create a suburban atmosphere are avoided through the institutional zoning and entitlement requirements.

Source: City of Malibu 1995.

Malibu Local Coastal Program and Municipal Code

To meet the standards established by the District's Education Specifications, the California Interscholastic Federation, and the National Federation of State High School Association, Buildings D, C, H, and J would exceed the LCP and City's 28-foot height requirements. Additionally, the labs located in Building C would require fume hoods that would exceed the height restrictions for rooftop-mounted equipment. Development of the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP except for those listed under Table 5.10-3*, Proposed Project Development Standards*. The table outlines the Proposed Project's specifications along with the current City's LIP and Municipal Code and reasoning for exceeding current City regulations.

Table 5.10-3 Proposed Project Development Standards

	Proposed Project Specification		Current LIP/ and Municipal Code (MC) Requirements	Reason/Notes
Development under the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP, with the exception of the following:				
Maximum Building Height[1]	Building J: Gym/PE	45 feet	§ 3.9.A1a of LIP and § 17.40.110 A.1.a. of MC: Structures shall not exceed a maximum height of 18 feet above natural or finished grade, except for chimneys, rooftop antenna, and light standards. The maximum height of the structure may be increased up to 28 feet for a flat or pitched roof if approved through a site plan review pursuant to § 13.27 of the Malibu LIP.	Gymnasiums must meet NFHS minimum interior height requirement of 23 feet clear from floor to ceiling for CIF Volleyball, the Specific Plan plans for 25 feet for adequate tolerance in design and construction and an additional 10 feet for long span structure and 5 feet for roof slope and parapet.
	Building H: Theater/ Performing Arts	45 feet		High School Performing Arts facilities require a vertical stage opening of 25 feet (to the bottom of the proscenium). In addition, the long span structure and tension lighting grid ceiling system would add 15 feet above the stage opening plus 5 feet for roof slope and parapet. This equates to a total height of 45 feet, allowing the school to produce the types of theatrical performances expected in a high school theater curriculum.
	Building D: Middle School Gym/MPR	36 feet		Gymnasiums must meet the National Federation of State High School Association (NFHS) minimum interior height requirement of 23 feet clear from floor to ceiling for competitive Volleyball; the Specific Plan plans for 24 feet for adequate tolerance in design and construction.
	Building C: High School Building	36 feet (Fume Hood 41 feet)		Building C north wing, second floor contains high bay/ high volume spaces to house educational uses. These high bay spaces are required to provide the students with adequate functioning spaces conducive to 21st century learning as defined in the Campus Plan Education Specifications. The Student Union is programmed with a central space of 4,000 square foot space. The interactive, collaborative nature of this space requires an appropriate, high-volume ceiling. A high school library, based on the District's Educational specifications, requires a variety of spaces, including a 3,000-square-foot area that can double as Staff Development space.
Rooftop Equipment Height	Building C: High School Building	Science Labs require fume hoods with exhaust stacks	§ 3.9A.1b of LIP and § 17.40.110 A.1.b. of MC: Roof-mounted mechanical equipment	Required rooftop equipment would exceed the 2-foot maximum height above the roof plane for exhaust hoods over Science Labs, as required by the American National Standard for Laboratory Ventilation ANSI Z9.5 as well as

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Table 5.10-3 Proposed Project Development Standards

	Proposed Project Specification		Current LIP/ and Municipal Code (MC) Requirements	Reason/Notes
Development under the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP, with the exception of the following:				
		placed at a minimum of 10 feet above the roof surface.	shall be integrated into the roof design, screened, and may project no more than two feet higher than the structure roof height (screens included) if approved through a site plan review pursuant to § 13.27 of the Malibu LIP.	the National Fire Protection Association Standard NFPA 45, Chapter 7, § 7.2.
	Building C: High School Building	Parapets and or Guardrails that project up to 42 inches in height above the surface of the roof.		Rooftop would be occupied by students to support outdoor learning, including visual observation to ESHA. With student access to the roof deck, higher parapets or guards are required, 42-inch minimum height per California Building Code, Part 2, Volume 1, Chapter 10, § 1015.
Lighting	Nighttime pool lighting would be installed.		§ 3.9.A1d of the LIP and § 17.40.110 A.1.d. of MC: Sports field lighting shall be limited to the main sports field at Malibu High School and subject to the standards of LIP §§ 4.6.2 and 6.5.G.	Lighting would be installed to meet the requirements of a Class II facility as identified by the Illuminating Engineering Society of North America (IESNA) (10th ed.), where lighting should be a minimum of 30 foot-candles over the pool and 20 foot-candles over the deck, as measured at the water level. Consistent with IESNA recommendations, lighting would also be provided within the pool basin, with the recommended luminance of 15 candelas per square foot (161 candelas per square meter). By meeting these standards, the pool lighting would also meet the requirements of California Building Code § 3115B.1.
Signage	Two new 15'6" x 7'6" electronic marquee signs, with a 10'x4' LED Display Screen. One sign each at the Middle and High schools.		§ 3.15.3.J of the LIP and § 17.52.040.J.of the MC: Except for those signs allowed under the provisions of § 3.15.4 (E) of the Malibu LIP, "Special permits," the following signs are prohibited: Automatic changing signs or electronic message center signs, except for public service, time and temperature.	Marquee signs for High School and Middle School are required by the District for proper communication with the Students/ Community. Marquee signs serve a multitude of communication needs, including emergency and safety communications.
Setback	The Proposed Project would remove		§ 4.6 of the LIP:	The current District development, including the vacated

Table 5.10-3 Proposed Project Development Standards

	Proposed Project Specification	Current LIP/ and Municipal Code (MC) Requirements	Reason/Notes
Development under the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP, with the exception of the following:			
	existing parking and drive aisles and maintain a 50-foot buffer from ESHA with the exception of a meandering deconstructed granite walking path adjacent to the ESHA for instructional stations and parking. All new buildings would be set back 100 feet.	New development adjacent to the riparian habitats shall provide native vegetation buffer areas of no less than100 feet to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of a sufficient size to ensure the biological integrity and preservation of the habitat they are designed to protect. Vegetation removal, vegetation thinning, or planting of non-native or invasive vegetation shall not be permitted within buffers except as provided in § 4.6.1 (E) or (F) of the Malibu LIP.	Cabrillo ES, District bus barn facilities, parking lots, drive aisles, and fencing/ site structures, extend up to the edge of the ESHA and in some instances into the ESHA, with no setback.
Maximum Grading Quantity	The Proposed Project, as shown in Table 3-15, would exceed the grading limitations.	§ 8.3.B. of the LIP and § 17.40.110 A.4.a of MC: Maximum Quantity of Grading. Notwithstanding any other provisions of the Malibu LIP, grading per lot of residential development, per acre of commercial development, or per acre of institutional development (total cut and fill) is limited to 1,000 cubic yards (per items a, b, c and d).	Because of the topography of the site and the need to create large terraces for student access as well as the overall size of individual school buildings, which are larger than most homes, the Proposed Project needs to cut/fill more than 1,000 cubic yards.
Maximum Height of Cuts and Fills	Certain buildings may serve as a retaining wall.	§ 8.3.C of the LIP § 17.40.110 A.4.b of MC: Maximum Height of Cuts and Fills with Retaining Walls. 6 feet in height for any one wall, or 12 feet for any combination of walls, where a minimum 3-foot separation exists	Each building would have its own site-specific geotechnical report that determines individual needs. Because of the topography of the site and the need to create large terraces, some of the buildings (Bldg. C for example) would serve as retaining walls and may be over 12 feet tall at certain locations.

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Table 5.10-3 Proposed Project Development Standards

	Proposed Project Specification	Current LIP/ and Municipal Code (MC) Requirements	Reason/Notes
Development under the Proposed Project would conform to all existing development standards under § 17.40.110 of the City's Municipal Code for Institutional Development and § 3.9 of the City's LIP, with the exception of the following:			
		between walls, except single cuts up to 12 feet in height which are an integral part of the structure are permitted. Retaining walls shall be designed with smooth, continuous lines that conform to the topography.	

Sources: SMMUSD 2021; Malibu 2002.
[1] All other buildings would have a maximum height of 28 feet.

The campus has varied topography within which several large buildings and plazas would be developed. To meet student safety and accessibility requirements, the buildings and areas surrounding them need to be as even as possible, minimizing ramps, stairs, and abrupt changes in elevation. This would result in site grading and a change in the topography to accommodate the buildings. In some cases, the existing grade is such that entry would occur at one level and exit at a different level.

The following summarizes the development standards for the Proposed Project in a format similar to that of the City of Malibu Municipal Code (City of Malibu 2021):

A. The Proposed Project would be subject to the following development standards:

1. **Height.** Except as allowed in this section, structures shall not exceed eighteen (18) feet above finished grade, except for chimneys, rooftop antenna, and light standards.
   a. Building C: High School Building shall not exceed a maximum height of thirty-six (36) feet finished grade, except for chimneys, rooftop antenna, and light standards that shall not exceed forty-one (41) feet above approved grading plan.
   b. Building D: Middle School Gym/Multi-Purpose Room and Structures shall not exceed a maximum height of thirty-six (36) feet finished grade, except for chimneys, rooftop antenna, and light standards that shall not exceed forty (40) feet (see Figure 3-11, *Building C, Proposed Elevation*).
   c. Building H: Theater/Performing Arts shall not exceed a maximum height of forty-five (45) feet above finished grade.
   d. Building J: Gym/Physical Education shall not exceed a maximum height of forty-five (45) feet above finished grade.
   e. Building L shall not exceed a maximum height of eighteen (18) feet above finished grade, except for chimneys, rooftop antenna, and light standards that shall not exceed a maximum height of twenty-eight (28) feet.
   f. For all other buildings, roof-mounted mechanical equipment shall be integrated into the roof design, screened, and may project no more than two feet higher than the structure roof height (screens included).
   g. In no event shall the maximum number of stories above grade be greater than two.

2. Yards/Setbacks.
   a. Building placement for Phase I shall be as shown on Figure 3-4, *Proposed Site Plan*, as approved by City Council. Building placement for subsequent phases will be considered by the City as part of the site plan review process.
   b. Any future buildings must comply with the following:
      (1) Front yard setbacks shall be ten (10) feet from the street easement.
      (2) Side yard setbacks shall be five (5) feet:
         (a) When adjacent to a residentially zoned parcel(s) along a side yard, the setback shall be increased to ten (10) percent of the lot width or ten (10) feet, whichever is greater.

(b) When adjacent to the ESHA, all buildings shall have a 100-foot setback from the ESHA. With the exception of access trails and fencing and parking, all other improvements shall be set back fifty (50) feet from the ESHA.

(3) Rear yard setbacks shall be five (5) feet; however, when adjacent to a residentially zoned parcel(s) along the rear yard, the setback shall be increased to fifteen (15) percent of the lot depth or fifteen (15) feet, whichever is greater.

3. **Site Development Criteria**. All proposed construction within the Project Site shall comply with the following site development standards:
   a. Structure Size. The gross floor area of all buildings on a given parcel shall be limited to a maximum floor area ratio (FAR) of 0.15, or fifteen (15) percent of the lot area (excluding slopes equal to or greater than 1:1 and street easements). Additional gross floor area may be approved by the City council, up to the maximum allowed for the parcel under the general plan, where additional significant public benefits and amenities are provided as part of the project.
   b. Landscaping and Site Permeability. Twenty-five (25) percent of the lot area (excluding slopes equal to or greater than 1:1 and street easements) shall be devoted to landscaping. The required five-(5-)foot landscape buffer around the perimeter of parking areas pursuant to § 17.48.050(E)(1) shall count toward the twenty-five (25) percent requirement. An additional five (5) percent of the lot area (excluding slopes equal to or greater than 1:1 and street easements) shall be permeable.
   c. Pool and pool deck lighting shall be installed consistent with the IESNA standards for a Class II pool facility. Lighting shall be a minimum of 30 foot candles over the pool and 20 foot candles over the deck, as measured at the water level. for improved safety. Consistent with IESNA recommendations, lighting shall also be provided within the pool basin, with the recommended luminance of 15 candelas per square foot (161 candelas per square meter). All pool lighting shall also be consistent with the California Building Code and § 3115B.1, where the pool must have underwater and deck lighting such that lifeguards or other persons may observe, without interference from direct and reflected glare from the lighting sources, every part of the underwater area and pool surface, all diving boards or other pool appurtenances.
   d. Sports field lighting shall be limited to the main sports field and parking lots at Malibu High School. All new outdoor lighting shall adhere to the standards of Malibu Local Coastal Program Local Implementation Plan §§ 4.6.2 and 6.5.G and § 17.41 Malibu Dark Sky provisions of the municipal code. .
   e. All parking areas within the 100-foot ESHA area shall be paved with permeable pavement to allow stormwater runoff to infiltrate into the soil below. Suspended paving systems shall be constructed below the permeable paving to treat and slow stormwater runoff before it reaches the ESHA. The system shall be designed to provide treatment and storage for stormwater but also promote healthy tree growth within parking areas.

2. Grading.

   a. Grading for Phase 1 is shown in Table 3-15, *Proposed Project Cut/Fill by Phase.*
   b. Approved by the City Council Action.

c. Grading for subsequent phases will be considered by the City as part of the site plan review process.

Determinations regarding lot widths and depths for irregularly shaped parcels, permitted driveway paths, building area and FAR, infill lots, and yards shall be made by the director, consistent with all applicable Malibu LCP policies and development standards (Ord. 373 § 6, 2013). Therefore, implementation of the Proposed Project would result in **less than significant** impacts relating to land use.

5.10.4 Mitigation Measures

No potentially significant impacts have been identified, and no mitigation measures are required.

5.10.5 Level of Significance After Mitigation

No mitigation measures have been identified, and impacts are less than significant.

5.10.6 Cumulative Impacts

The area considered for cumulative impacts is the City of Malibu and related projects. The Proposed Project meets the objectives and goals of the City's General Plan, Malibu Municipal Code, and LCP. The Proposed Project does not include mitigation measures for land use and planning impacts on the Project Site. Therefore, the Proposed Project's contribution to cumulative land use and planning impacts would be less than significant and would not be cumulatively considerable.

As a result, cumulative impacts to land use and planning are not considered significant.

5.10.7 References

Malibu, City of. 1995. City of Malibu General Plan. November. https://qcode.us/codes/malibu-general-plan/misc/malibu-general-plan.pdf.

———. 2002a. City of Malibu Local Coastal Program. https://www.malibucity.org/DocumentCenter/View/4421/Malibu-Local-Implementation-Plan-LIP-?bidId=.

———. 2002b, September 13. LCP Land Use Plan. https://www.malibucity.org/DocumentCenter/View/4422/Malibu-Land-Use-Plan-LUP-?bidId=.

———. 2002c, September 13. LCP Local Implementation Plan. https://www.malibucity.org/DocumentCenter/View/4421/Malibu-Local-Implementation-Plan-LIP-?bidId=.

———. 2021. Malibu Equestrian Park. https://www.malibucity.org/facilities/facility/details/Malibu-Equestrian-Park-11.

5. Environmental Analysis
LAND USE AND PLANNING

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5.11 NOISE

This section of the Draft Environmental Impact Report (DEIR) evaluates the Malibu Middle and High School (MMHS) Campus Specific Plan Project's (Proposed Project) potential noise and vibration impacts to sensitive receptors. This section discusses the fundamentals of sound; examines federal, state, and local noise guidelines, policies, and standards; characterizes existing noise levels in the Project area; evaluates potential noise and vibration impacts associated with the Proposed Project; and provides mitigation to reduce noise impacts at sensitive receptor locations. Noise modeling worksheets are in Appendix K of this DEIR.

The analysis in this section is based in part on the following technical report(s):

- *Malibu Middle and High School Campus Specific Plan Transportation Impact Analysis, Kittelson & Associates, Inc.,* August 2021

A complete copy of this technical report is provided in Appendix L of this DEIR.

In response to the to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project, four comment letters from residents and one comment letter from the City of Malibu's Planning Department addressed potential noise impacts. The IS/NOP and all scoping comment letters are included as Appendices B and C to this document.

5.11.1 Environmental Setting

5.11.1.1 NOISE AND VIBRATION FUNDAMENTALS

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness." Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the L_{eq} metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.

- **Statistical Sound Level (L_n).** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time. The changing noise levels are above this value half the time, and half of the time they are below it. This is called the "median sound level." The L_{10} level is the value that is exceeded 10 percent of the time, and this is often known as the "intrusive sound level." The L_{90} is exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."

- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels during a 24-hour period, with 10 dB added to the sound levels from 10:00 pm to 7:00 am.

- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels during a 24-hour period, with 5 dB added from 7:00 pm to 10:00 pm and 10 dB from 10:00 pm to 7:00 am. For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive, that is, higher than the L_{dn} value). As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as equivalent in this assessment.

- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

- **Peak Particle Velocity (PPV)**. The peak rate of speed at which soil particles move (e.g., inches per second) due to ground vibration.

Sound Fundamentals

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Changes of 1 to 3 dBA are detectable under quiet, controlled conditions, and changes of less than 1 dBA are usually indiscernible. A 3 dBA change in noise levels is considered the minimum change detectable with human hearing in outside environments. A change of 5 dBA is readily discernable to most people in an exterior environment, and a 10 dBA change is perceived as a doubling (or halving) of the sound.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are "felt" more as a vibration. Similarly, though people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz.

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

Sound Measurement

Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted scale compensates for the frequency response of the human ear by de-emphasizing very low and very high frequencies, similar to the human ear's de-emphasis of these frequencies.

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. On a logarithmic scale, an increase of 10 dBA is 10 times more intense than 1 dBA, 20 dBA is 100 times more intense, and 30 dBA is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dBA. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound is generated from a source, and it dissipates exponentially with distance from that source. This phenomenon is known as "spreading loss." For a single-point source, sound levels decrease by approximately 6 dBA for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dBA for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases by 4.5 dBA for each doubling of distance.

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period (see "Statistical Sound Level [L_n]" in the definitions at the beginning of this section). The L_{50} noise level represents the noise level that is exceeded 50 percent of the time or 30 minutes in an hour. The L_2, L_8 and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time, or 1, 5, and 15 minutes per hour. "L" values are typically used to demonstrate compliance with a noise ordinance for stationary sources, discussed below. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, the CNEL and L_{dn} noise descriptors add artificial dBA increments to quiet time noise levels. CNEL adds 5 dBA to the actual noise level from 7:00 pm to 10:00 pm and 10 dBA from 10:00 pm to 7:00 am. L_{dn} only adds 10 dBA to noise levels from 10:00 pm to 7:00 am. Both descriptors give roughly the same 24-hour level—CNEL is only slightly more restrictive (i.e., gives a higher level).

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system; prolonged noise exposure in excess of 75 dBA increases body tensions, which affects blood pressure, functions of the heart, and the nervous system. Extended periods of noise exposure above 90 dBA can result in permanent hearing damage. When the noise level reaches 120 dBA, it causes a tickling sensation in the human ear, even with short-term exposure. This is called the threshold of feeling. As the sound reaches 140 dBA, the tickling is replaced by pain; this is called the threshold of pain. A sound level of 190 dBA will rupture the eardrum and permanently damage the inner ear.

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium, such as the ground or a building. Vibration is normally associated with railroads or vibration-intensive stationary sources, but construction equipment such as jackhammers, pile drivers, and hydraulic hammers can also cause vibration.

The way in which vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy spreads over an ever-increasing area, and the energy level that strikes a given point decreases with distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons accustomed to elevated ambient vibration levels, such as in an urban environment, may tolerate higher vibration levels. Table 5.11-1, *Human Reaction to Typical Vibration Levels*, displays the human response and the effects on buildings resulting from continuous vibration in terms of various levels of peak particle velocity (PPV).

Table 5.11-1 Human Reaction to Typical Vibration Levels

Vibration Level Peak Particle Velocity	Human Reaction	Effect on Buildings
0.006–0.019 in/sec	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08 in/sec	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10 in/sec	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e., not structural) damage to normal buildings
0.20 in/sec	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6 in/sec	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans 2013.
Note: in/sec = inches per second

5.11.1.2 REGULATORY BACKGROUND

State, and local laws, regulations, plans, or guidelines related to noise that are applicable to the Proposed Project are summarized in this section.

State

California Building Code

The State of California's noise insulation standards for nonresidential uses are codified in the California Code of Regulations; Title 24, Building Standards Administrative Code; Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Proposed projects may use either the prescriptive method (§ 5.507.4.1) or the performance method (§ 5.507.4.2) to show compliance. Under the prescriptive method, a project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 A-Weighted Decibel (dBA) Community Noise Equivalent Level (CNEL) or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA Equivalent Continuous Noise Level ($L_{eq(1hr)}$).

California State Land Use Compatibility Guidelines for Noise

The State of California has adopted State General Plan Guidelines designed to ensure that proposed land uses are compatible with the predicted future noise environment. At different exterior noise levels, individual land uses are identified as "clearly acceptable," "normally acceptable," "normally unacceptable," or "clearly unacceptable." A "conditionally acceptable" designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use and needed noise insulation features are incorporated in the design. By comparison, a "normally acceptable" designation indicates that standard construction can occur with no special noise reduction requirements. The City of Malibu has adopted noise and land use compatibility standards in the General Plan Noise Element, which are discussed under local regulations.

Local

City of Malibu Municipal Code

The City of Malibu Municipal Code, Chapter 8.24, Noise, outlines prohibited noises as well as exemptions. The purpose of the noise ordinance is to control unnecessary, excessive, and annoying noise and vibration in the city.

Operational

Per § 8.24.060(C), outdoor activities conducted on public playgrounds or public or private school grounds, including but not limited to school athletic and school entertainment events, are exempt from the provisions of Chapter 8.24.

Construction

Construction activities are subject to § 8.24.050 of the City of Malibu Municipal Code. According to this section, construction is prohibited between the hours of 7:00 pm and 7:00 am on weekdays and between the hours of 5:00 pm and 8:00 am on Saturdays. Construction is not permitted on Sundays or federal holidays. Section 8.24.060, Exemptions, provides special circumstances under which construction may occur outside of the allowable hours with written permission from the City Manager.

City of Malibu General Plan

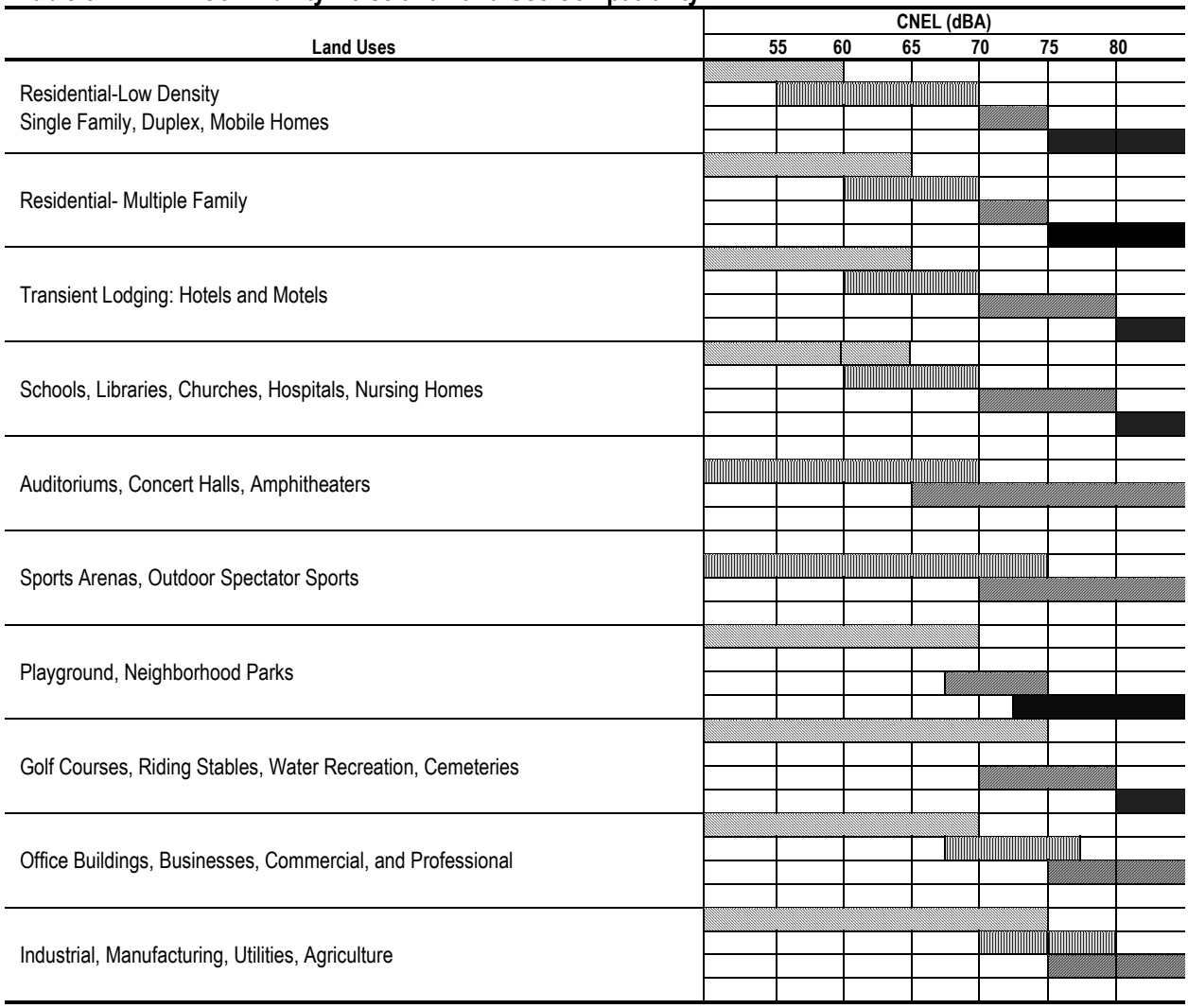
The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 6, Noise Element

The Noise Element provides guidance for comprehensive local programs to control and abate excessive noise and to protect residents from adverse noise impacts. The element provides information on the existing and projected noise environment and includes goals, objectives, policies, and implementation programs to ensure an acceptable noise environment. The element also identifies criteria to be used by decision makers in evaluating the noise implications of proposed projects.

The City of Malibu has adopted noise and land use compatibility standards, which are summarized in Table 5.11-2, *Community Noise and Land Use Compatibility*.

Table 5.11-2 Community Noise and Land Use Compatibility



	Normally Acceptable: With no special noise reduction requirements assuming standard construction.		**Normally Unacceptable:** New construction is discouraged. If new construction does not proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
	Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.		**Clearly Unacceptable:** New construction or development should generally not be undertaken.

Source: Figure N-2, Noise Element of City of Malibu General Plan.

The City of Malibu has adopted policies in support of Goal N 1, Acceptable Noise Levels, and Objective N 1.1, A Comprehensive Noise Control Program. The following policies and implementation measures are relevant to the Proposed Project:

- **N Policy 1.1.2:** The City shall protect noise sensitive land uses from negative impacts of proximity to noise generating uses.
- **N Policy 1.1.4:** The City shall work with businesses and residents in a joint effort to plan, control, and attain an acceptable noise environment.
- **N Policy 1.1.5:** The City shall encourage new construction and remodels which utilize designs and materials that reduce exposure to noise sources.
- **N Policy 1.1.6:** The City shall review proposed development to ensure the average ambient noise is as low as feasible to maintain the rural atmosphere.
- **N Implementation Measure 2:** Limit maximum permissible noise levels from all sources, including but not limited to filming, motorized vehicles, construction, leaf blowers and other landscaping equipment.
- **N Implementation Measure 5:** Restrict the hours and days of construction, grading, and filming to reduce noise from this source.
- **N Implementation Measure 7:** Use site planning and project design as noise mitigations to achieve the specified standards for transportation or non-transportation sources.
- **N Implementation Measure 8:** Use open space, wherever practical, to provide an adequate spatial separator between noise sources and sensitive land uses. Use noise barriers as a supplemental means of achieving the noise standards after all feasible design related noise mitigation measures have been integrated into the project.

Stationary (Nontransportation) Noise

Besides the previously discussed land use compatibility standards, the City of Malibu General Plan Noise Element also contains thresholds for stationary source noise (e.g., mechanical equipment) generated at a property and resulting in noise at nearby noise-sensitive properties. These standards restrict the amount and duration of noise generated at a property, as measured at the property line of the noise receptor. The nontransportation, stationary noise standards are summarized in Table 5.11-3, *Maximum Exterior Noise Limits, Nontransportation Noise Sources*.

Table 5.11-3 Maximum Exterior Noise Limits, Nontransportation Noise Sources

Receiving Land use	Time Period	Noise Level dBA	
		Leq	Lmax
Rural[1]	7:00 am–7:00 pm	55	75
	7:00 pm–10:00 pm	50	65
	10:00 pm–7:00 am	40	55
Other Residential[2]	7:00 am–7:00 pm	55	75
	7:00 pm–10:00 pm	50	65
	10:00 pm–7:00 am	45	60
Commercial, Institutional[3]	7:00 am–7:00 pm	65	85
	7:00 pm–7:00 am	60	70

Source: City of Malibu General Plan Noise Element
[1] All RR zones, PRF, CR, AH, and OS zones
[2] All SFR, MFR, and MFBF zones
[3] CN, CC, CV, CG, and I zones

5.11.1.3 EXISTING CONDITIONS

Existing Noise Environment

The Project Site is in a predominantly rural residential area in the city of Malibu, approximately 1,000 feet north of Pacific Coast Highway. The Malibu General Plan Noise Element, Chapter 6.3, Existing Roadway Noise Levels, shows that the Project Site is outside of the 55 dBA CNEL noise contour. The site is predominantly characterized by traffic noise along Morning View Drive and other local roadways. Noise from nearby residential uses (e.g., property maintenance) and the school also contribute to the overall noise environment intermittently in the Project vicinity.

Sensitive Receptors

Certain land uses, such as residences, schools, and hospitals, are particularly sensitive to noise and vibration. Sensitive receptors include residences, senior housing, schools, places of worship, and recreational areas. These uses are regarded as sensitive because they are where citizens most frequently engage in activities that are likely to be disturbed by noise, such as reading, studying, sleeping, resting, or quiet or passive recreation. Commercial and industrial uses are not particularly sensitive to noise or vibration.

The Project Site is bordered by single-family homes to the north, south, and west. The closest residences are located across Morning View Drive at a distance of approximately 50 feet and residences across Clover Heights Avenue at a distance of approximately 50 feet. The Malibu United Methodist Church is located approximately 100 feet to the south, and the Malibu Equestrian Park is approximately 150 feet to the east. In certain areas, topography places residences at a higher elevation than the campus—up to 15 feet higher for residence on Via Cabrillo in relation to the proposed west end of Phase 4, and up to 35 feet higher for residence on Morning View Drive in relation of the proposed Bus Barn. During construction activities while school is in session, students on the existing campus would also be considered noise-sensitive receptors.

Ambient Noise Monitoring

To determine baseline noise levels within the Project vicinity, ambient noise monitoring was conducted by PlaceWorks in May 2021. Eight short-term (15-minute) measurements were conducted on Monday, May 24, 2021.

The primary noise sources during measurements were light local traffic, birds, school activities, and typical neighborhood activities. Meteorological conditions during the measurement period were favorable for outdoor sound measurements and were noted to be representative of the typical conditions for the season. Generally, conditions included clear skies with midday temperatures of 63 to 76 degrees Fahrenheit (°F), and average wind speeds between 1 to 4 miles per hour (mph). The sound level meter was equipped with a windscreen during measurements.

The sound level meter used for noise monitoring satisfies the American National Standards Institute (ANSI) standard for Type 1 instrumentation.[1] The sound level meters were set to "slow" response and dBA.[2] The meter was calibrated before and after the monitoring period. All measurements were at least five feet above the ground and away from reflective surfaces. Noise measurement locations are described below and shown on Figure 5.11-1, *Approximate Noise Monitoring Locations*. The short-term noise measurement results are summarized in Table 5.11-4, *Short-Term Noise Measurements Summary in A-Weighted Sound Levels*. Average ambient noise levels ranged from 42.9 to 62.8 dBA L_{eq}.

The following describes the noise monitoring locations:

- **Short-Term Location 1 (ST-1)** was in front of 5940 Clover Heights Avenue. A 15-minute noise measurement was conducted, beginning at 3:12 pm on Monday, May 24, 2021. The noise environment of this site is characterized primarily by light traffic and birds.

- **Short-Term Location 2 (ST-2)** was at the dead end of Floris Heights Road. A 15-minute noise measurement was conducted, beginning at 9:22 am on Monday, May 24, 2021. The noise environment of this site is characterized primarily by light traffic and birds.

- **Short-Term Location 3 (ST-3)** was at Parking Lot A adjacent to a residence on Via Cabrillo Street. A 15-minute noise measurement was conducted, beginning at 7:56 am on Monday, May 24, 2021. The noise environment of this site is characterized primarily by parking lot traffic, distant construction, and birds.

- **Short-Term Location 4 (ST-4)** was across from the southwestern edge of the school on Morning View Drive. A 15-minute noise measurement was conducted, beginning at 8:53 am on Monday, May 24, 2021. The noise environment of this site is characterized primarily by traffic on Morning View Drive and construction activity.

[1] Monitoring of ambient noise was performed using a Larson-Davis model LxT sound level meter.
[2] "Slow" response is the most appropriate for a typical outdoor noise environment where sound levels are constantly fluctuating, such as in the Project area.

- **Short-Term Location 5 (ST-5)** was across from the south-central edge of the school on Morning View Drive. A 15-minute noise measurement was conducted, beginning at 8:26 am on Monday, May 24, 2021. The noise environment of this site is characterized primarily by traffic on Morning View Drive and student drop-off activity.

- **Short-Term Location 6 (ST-6)** was adjacent to a residence near Parking Lot E. A 15-minute noise measurement was conducted, beginning at 11:39 am on Monday, May 24, 2021. The noise environment of this site is characterized primarily by light traffic and construction/drilling activity.

- **Short-Term Location 7 (ST-7)** was at the Malibu Equestrian Park. A 15-minute noise measurement was conducted, beginning at 11:08 am on Monday, May 24, 2021. The noise environment of this site is characterized primarily by distant traffic, horses, and birds.

- **Short-Term Location 8 (ST-8)** was south of the Malibu Equestrian Park parking lot adjacent to a residence. A 15-minute noise measurement was conducted, beginning at 7:06 am on Monday, May 24, 2021. The noise environment of this site is characterized primarily by distant traffic and birds.

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NOISE

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Figure 5.11-1 Approximate Noise Monitoring Locations

Source: Nearmap, 2021

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NOISE

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Table 5.11-4 Short-Term Noise Measurements Summary in A-Weighted Sound Levels

Monitoring Location	Description	15-Minute Noise Level, dBA	
		L_{eq}	L_{max}
ST-1	5940 Clover Heights Avenue, 3:12 PM, 5/24/2021	56.7	73.6
ST-2	Floris Heights Road, 9:22 AM, 5/24/2021	51.0	70.6
ST-3	School Parking Lot A, 7:56 AM, 5/24/21	48.9	64.2
ST-4	Morning View Drive near southwestern edge of school, 8:53 AM, 5/24/21	62.1	79.5
ST-5	Morning View Drive near south-central edge of school, 8:26 AM, 5/24/21	60.8	80.6
ST-6	Adjacent to residence near Parking Lot E, 11:39 AM, 5/24/21	62.8	72.2
ST-7	Malibu Equestrian Park, 11:08 AM, 5/24/21	43.0	66.8
ST-8	Adjacent to residence south of Malibu Equestrian Park parking lot, 7:06 AM, 5/24/21	42.9	65.0

5.11.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a Project would normally have a significant effect on the environment if the Project would result in:

N-1 Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

N-2 Generation of excessive groundborne vibration or groundborne noise levels.

N-3 For a project located within the vicinity of a private airstrip or 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, if the project would expose people residing or working in the project area to excessive noise levels.

The IS/NOP, included as Appendix B to this DEIR, substantiates that impacts associated with the following threshold would be less than significant; therefore, this impact will not be further addressed in this DEIR:

- Threshold N-3

In addition, operational vibration impacts were found to be less than significant in the IS/NOP. Therefore, only potential impacts from construction vibration will be addressed further.

5.11.2.1 CONSTRUCTION NOISE THRESHOLDS

The City of Malibu has certain prohibited hours for construction activities but does not have a quantified construction noise limit. The Federal Transit Administration (FTA) criterion of 80 dBA $L_{eq(8hr)}$ is used for off-campus sensitive receptors (i.e., residences) as a threshold of significance. On-campus receptors would include students learning in classrooms. The CALGreen requirement for nonresidential interior spaces of 50 dBA L_{eq} is used as an interior noise threshold for the on-campus student learning environment.

5.11.2.2 STATIONARY NOISE THRESHOLDS

As discussed in Section 5.11.1.1, *Regulatory Background,* the City's exterior noise standards are established in the General Plan Noise Element for nontransportation stationary noise sources. These standards are used as thresholds of significance from stationary noise sources associated with the Proposed Project, such as mechanical equipment. However, activities conducted on public playgrounds or private school grounds, including but not limited to school athletic and school entertainment events, are exempt from the City's noise standards. Therefore, though the quantified noise limits from the City are not used as thresholds of significance for recreational activities, these noises associated with the Proposed Project are analyzed in light of existing conditions.

5.11.2.3 TRANSPORTATION NOISE THRESHOLDS

A project will normally have a significant effect on the environment related to traffic noise if it would substantially increase the ambient noise levels for adjoining areas. Most people can detect changes in sound levels of approximately 3 dBA under normal, quiet conditions, and changes of 1 to 3 dBA are detectable under quiet, controlled conditions. Changes of less than 1 dBA are usually indiscernible. A change of 5 dBA is readily discernible to most people in an exterior environment. Therefore, because areas with a higher ambient noise level are more noise impacted to begin with, less of a project noise increase is allowed. Based on this, the following thresholds of significance, similar to those recommended by the Federal Aviation Administration, are used to assess traffic noise impacts at sensitive receptor locations. A significant impact would occur if the traffic noise increase would exceed:

- 1.5 dBA in ambient noise environments of 65 dBA CNEL and higher.
- 3 dBA in ambient noise environments of 60 to 64 CNEL dBA.
- 5 dBA in ambient noise environments of less than 60 CNEL dBA.

5.11.2.4 VIBRATION THRESHOLDS

The City of Malibu does not have quantified limits for vibration. FTA criteria for acceptable levels of groundborne vibration for various types of buildings are used in this analysis. Structures amplify groundborne vibration, and wood-frame buildings, such as typical residential structures, are more affected by ground vibration than heavier, engineered buildings. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. Conservative estimates are reflected in the FTA standards, shown in Table 5.11-5, *Groundborne Vibration Criteria: Architectural Damage.*

Table 5.11-5 Groundborne Vibration Criteria: Architectural Damage

Building Category		PPV (in/sec)
I.	Reinforced concrete, steel, or timber (no plaster)	0.5
II.	Engineered concrete and masonry (no plaster)	0.3
III.	Non-engineered timber and masonry buildings	0.2
IV.	Buildings extremely susceptible to vibration damage	0.12

Source: FTA 2018.
PPV = peak particle velocity

5.11.3 Environmental Impacts

5.11.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.11-1: Construction-related activities would result in temporary noise increases in the vicinity of the Proposed Project in excess of established standards. [Threshold N-1]

Two types of short-term noise impacts could occur during each of the four phases of construction: (1) mobile-source noise from transport of workers, material deliveries, and debris and soil haul and (2) stationary-source noise from use of construction equipment. Existing uses surrounding the Project Site would be exposed to construction noise.

Construction Vehicles

The transport of workers and materials to and from the construction site would incrementally increase noise levels along site access roadways (namely Morning View Drive). Individual construction vehicle pass-by trips may create momentary noise levels of up to approximately 85 dBA (L_{max}) at 50 feet from the vehicle, but these occurrences would generally be infrequent and short lived. During Phase 1, worker and vendor trips would total a maximum of approximately 177 daily trips during overlapping building construction and utility trenching phases. Maximum daily haul truck trips would be up to 135 during soil haul for rough grading over a 39-workday period (Monday through Friday). It should be noted that, though the majority of construction work is anticipated to take place Monday through Friday, sometimes work may be necessary on Saturday, consistent with the City's allowable construction hours from the municipal code. During Phases 2 through 4, worker and vendor trips would total a maximum of approximately 196 daily trips during the building construction phase. Maximum daily haul truck trips would be up to 67 during soil haul for rough grading over a 65-workday period.

Site access would be along Morning View Drive. Existing average daily traffic (ADT) on Morning View Drive is 2,312 or greater.[3] The addition of construction trips and haul trips would result in a temporary noise increase

[3] ADT based on observed and adjusted traffic counts in June 2021, provided by Kittelson & Associates, 2021.

of less than 0.4 dBA CNEL or less, which would not be substantial nor permanent. Therefore, construction-vehicle noise impacts would be considered **less than significant**, and no mitigation measures are necessary.

Construction Equipment

Noise generated during construction is based on the type of equipment used, the location of the equipment relative to sensitive receptors, and the timing and duration of the noise-generating activities. Each activity phase of construction involves the use of different construction equipment, and therefore each activity phase has its own distinct noise characteristics. Noise levels from construction activities are dominated by the loudest piece of construction equipment. The dominant noise source is typically the engine, although work piece noise (such as dropping of materials) can also be noticeable. Construction would occur over four sequential (not overlapping) phases from fall 2022 to spring 2031. Table 5.11-6, *Construction Equipment Noise Emission Levels,* lists typical noise levels for equipment anticipated for use during Project construction.

Table 5.11-6 Construction Equipment Noise Emission Levels

Construction Equipment	Typical Noise Level (dBA L_{eq}) at 50 feet	Typical Noise Level (dBA L_{eq}) at 100 feet[1]
Air Compressor	80	74
Backhoe	80	74
Concrete Mixer	85	79
Concrete Pump	82	76
Crane, Mobile	83	77
Dozer	85	79
Generator	82	76
Grader	85	79
Loader	80	74
Paver	85	79
Roller	85	79
Saw	76	70
Scraper	85	79
Truck	84	78

Source: FTA 2018.
[1] Based on 6 dBA reduction per doubling of distance.

Off-Campus Sensitive Receptors

As shown in Table 5.11-6, construction equipment used during each phase of construction of the Proposed Project would generate noise levels of up to 85 dBA L_{eq} at 50 feet. However, overall noise emissions vary considerably, depending on the specific activity being performed at any given moment. Noise attenuation due to distance, the number and types of equipment, and the load and power requirements to accomplish tasks at each construction phase would result in different noise levels from construction activities at a given receptor. Noise from construction equipment is intermittent and diminishes at a rate of at least 6 dBA per doubling of distance (conservatively ignoring other attenuation effects from air absorption, ground effects, and shielding

effects), and the average noise levels at noise-sensitive receptors could vary considerably because mobile construction equipment would move around the site with different loads and power requirements.

Pile driving would not be needed during any phase of Project construction. The time of day that construction activity is conducted also determines significance, particularly during the more sensitive nighttime hours. However, construction activity would comply with Malibu Municipal Code § 4.2.04(G), which limits the hours of construction to 7:00 am to 7:00 pm on weekdays and 8:00 am to 5:00 pm on Saturday; construction is not allowed on Sundays or holidays.

Noise levels from Project-related construction activities were conservatively based on the loudest piece of construction equipment proposed for each phase at a distance from the boundary of the phase area to the property line of the nearest receptors. This provides a conservative analysis because construction equipment would likely not remain at the boundary of the phase area for an entire eight-hour workday.[4] Nevertheless, the distance from the boundary of the phase area to the nearest receptor property line is used to provide a reasonable worst-case analysis of construction noise impacts. During Phases 1 and 2, the nearest sensitive receptors would be residences approximately 50 feet away, across Morning View Drive. During Phase 3 construction of Parking Lot F, the nearest sensitive receptors would be residences approximately 50 feet away, across Clover Heights Avenue. During Phase 4, the nearest sensitive receptors would be residences approximately 50 feet away, across Morning View Drive; a residence on Via Cabrillo approximately 75 feet away; residences within 50 feet to the south and west; and the Malibu Equestrian Park north of the proposed Bus Barn construction area. Project construction noise for Phases 1 through 4 was estimated using the reference noise levels in Table 5.11-6. Project construction noise levels by phase are summarized in Table 5.11-7, *Project-Related Construction Noise*.

Table 5.11-7 Project-Related Construction Noise, dBA L_{eq}

Construction Activity Phase	Residences across Morning View Drive 50 feet southwest of Phases 1, 2, and 4	Residences across Clover Heights Avenue 50 feet east of Phase 3	Residence on Via Cabrillo 75 feet west of Phase 4	Residences 50 feet south and west of proposed Phase 4 Bus Barn	Malibu Equestrian Park
Phase 1	**85**	57	77	60	57
Phase 2	**85**	56	63	**81**	71
Phase 3	68	**85**	66	65	62
Phase 4	**85**	62	**81**	**85**	**85**

Notes: Values in **bold** would exceed the 80 dBA Leq significance threshold.
Values conservatively do not account for additional noise reduction from buildings or other shielding.

As shown in Table 5.11-6, *Construction Equipment Noise Emission Levels*, construction activity could exceed the threshold of 80 dBA L_{eq} when within 100 feet of a nearby receptor property line. As discussed above, this is a conservative analysis because construction equipment would likely not remain at the boundary of the phase area for an entire eight-hour workday. Table 5.11-7 shows that construction noise levels could exceed the threshold of 80 dBA L_{eq} during all four phases without mitigation. Since construction activities during all phases

[4] The FTA threshold is 80 dBA $L_{eq(8hr)}$, which is an 8-hour average noise level.

have the potential to occur within 100 feet of the nearest receptor property line and exceed the threshold of 80 dBA L_{eq}, this impact would be considered **potentially significant**. Implementation of Mitigation Measure N-1 would reduce construction equipment-related noise impacts to off-site sensitive receptors. However, due to topography in the area of Phase 4, residences on Via Cabrillo are higher in elevation than proposed Phase 4 construction on the west end, and residences on Morning View Drive are higher in elevation than the proposed Bus Barn construction; the use of temporary noise barriers would not be as effective in reducing construction noise.

On-Campus Sensitive Receptors

Students would remain on campus during all phases of construction, and there is potential for construction activities during school hours. Therefore, students could be exposed to construction activity noise during this time. The CALGreen requirement for nonresidential interior spaces is 50 dBA L_{eq}, and the typical building would provide at least 25 dBA of exterior-to-interior noise reduction. Therefore, if exterior construction noise exceeds 75 dBA L_{eq} at the classroom building façade, interior noise levels could exceed the threshold. Based on the equipment anticipated for Project construction (see Table 5.11-6, *Construction Equipment Noise Emission Levels*), construction noise could potentially exceed the interior standard of 50 dBA L_{eq} when within 150 feet of an active classroom. Therefore, this impact is considered **potentially significant**. Implementation of Mitigation Measure N-1 would reduce construction equipment-related noise impacts to on-site sensitive receptors to a level of **less than significant**.

Impact 5.11-2 Project implementation would not result in permanent operation-related noise that would exceed established standards. [Threshold N-1]

Operational noise from the Project would include stationary sources such as mechanical HVAC equipment, student and other community use recreational activity, and the relocated bus barn as well as mobile sources such as roadway traffic.

Stationary Noise

Mechanical Equipment/HVAC

Heating, ventilation, and air conditioning (HVAC) systems would be installed on the rooftops of various buildings, as they are now, so this type of noise already exists in the Project area. The nearest noise-sensitive receptors are residential uses to the south. Typical HVAC equipment generates noise levels ranging up to 72 dBA at a distance of 3 feet. The nearest proposed buildings with HVAC equipment (Building C) would be approximately 200 feet north of residential property lines across Morning View Drive (this is farther than existing Building C at JCES and MMHS Building A/B). At this distance, noise levels associated with HVAC equipment would attenuate to approximately 36 dBA. This would not exceed the exterior noise limit of 40 dBA for nighttime rural residential and would, therefore, be a **less than significant impact**.

Student and Other Community Use Recreational Noise

As discussed in Chapter 3, *Project Description*, the Proposed Project would modernize campus facilities and retain the total capacity of 1,200 students. School hours would remain the same, from 8:00 am to 3:00 pm, with staff and students of the middle/high school arriving on campus between approximately 7:00 am and 8:00 am and leaving between approximately 3:00 pm and 5:00 pm, with occasional special events and community events during weeknights and/or weekends. When the school facilities are not in use and are not scheduled for school-sponsored or other District-related events, the Civic Center Act and SMMUSD policy permit community organizations and members to use school facilities by obtaining a Civic Center Act Permit from the District or the City of Malibu. Such uses already occur—e.g., soccer and softball practice/games, use of the pool, and use by the Boys & Girls Club—and would continue under the Proposed Project. Since the Proposed Project does not propose to increase student capacity and the daily schedule would remain the same, student- and community-related use noise is expected to be similar to existing conditions.

The existing athletic, baseball, and softball fields would receive minor improvements but would not relocate. The existing public address (PA) system and speakers would be relocated to the proposed ADA-compliant press box. The PA speakers would be located in the same general area as under existing conditions, and noise from recreational activities would be comparable to existing conditions. There are no proposed changes to field lighting or the frequency, duration, or intensity of PA system use. The Proposed Project would add two new unlit tennis courts next to the existing tennis courts. Tennis is typically played as singles or doubles with up to four people per court. No bleachers are proposed for spectators. The addition of two new tennis courts would not substantially increase outdoor recreational noise above existing conditions. Furthermore, activities on public playgrounds or private school grounds, including school athletic and school entertainment events, are exempt from the City's noise standards. Student recreational noise would be **less than significant**.

Bus Barn

As discussed in Chapter 3, *Project Description,* the bus barn would be moved from its current location on campus to a District-owned location on the Malibu Equestrian Center. Operational characteristics would be the same as the existing bus barn. Bus testing begins at 6:00 am during school days. Startup testing includes momentary testing of horns and blinkers. Three buses would be in operation on a daily basis, with limited weekend operation. Buses depart the facility at 6:45 am and continuously use the facility until approximately 6:00 pm. Because of the varied bell schedules for middle and high schools, frequency and exact timing of use would vary day-to-day. Any maintenance, refueling, and washing activities happen at an off-site location, as under current conditions.

PlaceWorks staff conducted noise monitoring at a similar bus facility at the Coachella Valley Unified School District Bus Yard in 2013. A 10-minute noise measurement of bus testing—including horn, idling, back-up beeps, and air brake discharge—resulted in a noise level of 64 dBA L_{eq} at a distance of 30 feet. The nearest residential property lines to the proposed bus barn are approximately 30 feet to the south and west. Without mitigation, the relocation of the bus barn would exceed the nighttime noise standard of 40 dBA L_{eq} for rural residential receiving uses and would be considered **potentially significant**. Implementation of Mitigation Measure N-2 would reduce this impact to a level of **less than significant**.

Traffic Noise

The Proposed Project would not result in an increase of student or staff capacity. However, the proposed new Parking Lot F in the northern part of the campus near the athletic fields could result in a redistribution of trips and additional trips from after-school community use. The existing secured and locked gate from Clover Heights Avenue would remain locked during school hours, and this location would not serve as a drop-off/pick-up location. It would continue to give pedestrian access only during school hours. The 14 spaces in Parking Lot F would serve after-school community uses of the athletic fields only.

Roadway segment ADT volumes regarding access to Parking Lot F were provided by Kittelson & Associates (Appendix L). To determine the Project-related traffic noise increase to the sensitive residential receptors along the roadways that would provide access to this lot (Clover Heights Avenue, Merritt Drive, and Morning View Drive) the Existing Plus Project ADT volumes were compared to the Existing ADT volumes. Table 5.11-8, *Traffic Noise Increases*, shows the increase in vehicle trips associated with Parking Lot F and the resulting traffic noise increase along roadway segments in the Project area.

A significant impact would occur if the traffic noise increase would exceed the thresholds in Section 5.11.2.3:

- 1.5 dBA in ambient noise environments of 65 dBA CNEL and higher.
- 3 dBA in ambient noise environments of 60 to 64 CNEL dBA.
- 5 dBA in ambient noise environments of less than 60 CNEL dBA.

As shown in Table 5.11-8, *Traffic Noise Increases*, Project-related traffic would be less than 1.5 dBA, with the exception of Clover Heights Avenue south of Harvester Road. However, ambient noise measurements at ST-1 indicate that the existing ambient is below 60 dBA. As shown above, the threshold for traffic noise increases is 5 dBA when the existing ambient is less than 60 dBA CNEL. The traffic noise increase along this roadway segment is estimated to be 2.2 dBA, which would not exceed the 5 dBA threshold. Therefore, operational traffic impacts associated with Parking Lot F would be **less than significant**.

Table 5.11-8 Traffic Noise Increases

	Average Daily Traffic				dBA CNEL	
Roadway Segment	Existing	Existing Plus Project	2031 No Project	2031 Plus Project	Project Noise Increase	Cumulative Increase
Morning View Drive - east of Pacific Coast Highway	5,717	5,843	6,009	6,135	0.1	0.3
Morning View Drive - east of Merritt Drive	5,006	5,132	5,262	5,388	0.1	0.3
Morning View Drive - west of Ebbtide Way	2,312	2,312	2,430	2,430	0.0	0.2
Morning View Drive - west of campus	1,486	1,486	1,562	1,562	0.0	0.2
Clover Heights Avenue - south of Harvester Road	192	318	202	328	2.2	2.3

Table 5.11-8 Traffic Noise Increases

Roadway Segment	Average Daily Traffic				dBA CNEL	
	Existing	Existing Plus Project	2031 No Project	2031 Plus Project	Project Noise Increase	Cumulative Increase
Merritt Drive - south of Morning View Drive	792	918	833	959	0.6	0.8
Pacific Coast Highway - south of Morning View Drive	24,800	24,926	26,068	26,194	0.0	0.2

Source: Appendix J.

Impact 5.11-3: The Proposed Project would not generate excessive groundborne vibration or groundborne noise levels. [Threshold N-2]

Construction Vibration

Potential vibration impacts associated with development projects are usually related to the use of heavy construction equipment during the demolition and grading phases of construction. Construction can generate varying degrees of ground vibration, depending on the construction procedures and equipment. The effect on buildings in the vicinity varies depending on soil type, ground strata, and receptor-building construction. The effects from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures.

For reference, a peak particle velocity of 0.2 in/sec PPV is used as the limit for nonengineered timber and masonry buildings (which would apply to the surrounding residential structures) (FTA 2018). Table 5.11-9, *Vibration Impact Levels for Typical Construction Equipment*, shows vibration levels for typical construction equipment at a reference distance of 25 feet and at the nearest sensitive-receptor buildings 120 feet to the south. As shown in Table 5.11-9, construction vibration would not exceed the threshold of 0.2 in/sec PPV, and impacts would be **less than significant**.

Table 5.11-9 Vibration Impact Levels for Typical Construction Equipment

Equipment	in/sec PPV	
	Reference levels at 25 feet	Residences 120 feet south[1]
Vibratory Roller	0.21	0.020
Large Bulldozer	0.089	0.008
Caisson Drilling	0.089	0.008
Loaded Trucks	0.076	0.007
Jackhammer	0.035	0.003
Small Bulldozer	0.003	<0.001

Source: FTA 2018.
[1] As measured from the edge of construction site.

Operational Vibration

The Proposed Project would include bus movement activity at the Project Site. For perspective, Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic." (Caltrans 2020). Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)" (Caltrans 2013). Since the Project's bus movements would be at lower speeds than freeways and over smooth surfaces (not roadways in poor conditions), project-related vibration associated with bus activity would not result in excessive groundborne vibrations—no vehicle-generated vibration impacts would occur. In addition, there are no sources of substantial groundborne vibration associated with the project, such as rail or subways. The proposed project would not create or cause any vibration impacts due to operations.

5.11.4 Mitigation Measures

Impact 5.11-1

N-1 Construction contractors shall implement the following measures for construction activities conducted at the Project Site during each phase of construction. Construction plans submitted to the District shall identify these measures on demolition, grading, and construction plans. The District shall verify that grading, demolition, and/or construction plans submitted include these notations prior to demolition, grading, and/or building construction.

- During the active construction period, equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds) wherever feasible.
- Impact tools (e.g., jack hammers and hoe rams) shall be hydraulic- or electric-powered wherever feasible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools.
- Stationary equipment such as generators and air compressors shall be located as far as feasible from noise-sensitive uses.
- The District's construction contractors and subcontractors shall be required through contract specifications to locate construction staging areas, construction worker parking, and material stockpiling as far away from vibration- and noise-sensitive sites as possible. Additionally, these activities shall be located away from occupied buildings on campus, occupied residential dwellings adjacent to the campus, and other sensitive receptors, where feasible.

- Prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours as well as the contact information of the District's and contractor's representatives who are authorized to respond in the event of a noise or vibration complaint. If the contractor's authorized representative receives a complaint, they shall investigate, take appropriate corrective action, and report the action to the District.
- Signs shall be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All equipment shall be turned off if not in use for more than 5 minutes.
- During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall be responsible for adjusting alarms based on the background noise level, or to utilize human spotters when feasible and in compliance with all safety requirements and laws.
- Notification shall be mailed to owners and occupants of all developed land uses immediately bordering or directly across the street from the Proposed Project site providing a schedule for major construction activities through the duration of the construction period. When construction activity would occur within 100 feet of nearby receptor property lines, contractors shall erect temporary noise barriers where feasible. The temporary noise barrier shall have a minimum height of 12 feet and be free of gaps and holes. The barrier can be (a) a ¾-inch-thick plywood wall OR (b) a hanging acoustical blanket/curtain with a surface density or at least 1.5 pounds per square foot.
- Prior to construction, the contractor shall submit to the District a list of equipment and activities required during construction to ensure proper planning of the most intense construction activities during time periods that would least impact campus operations. When construction activity would occur within 150 feet of active classrooms, contractors shall ensure that interior classroom noise levels do not exceed 50 dBA L_{eq}. Feasible methods to achieve this include those listed above, scheduling work during less sensitive time periods when the classroom is not in use, and classroom use rescheduling to move active classes away from high noise construction activities, as necessary. Construction activities within 50 feet of occupied classrooms would be prohibited during preparation and testing for National Standardized testing days of students at MMHS.

Impact 5.11-2

N-2 The proposed bus barn shall be an enclosed structure constructed of wood, masonry, concrete, or other similar solid material (e.g., not corrugated metal). The structure will have no gaps and minimal window area. All bus testing shall be conducted inside the enclosed bus barn.

5.11.5 Level of Significance After Mitigation

Impact 5.11-1

Mitigation Measure N-1 would reduce potential noise impacts during construction to on- and off-site sensitive receptors to the extent feasible. Specifically, the effective use of temporary noise barriers, as required under Mitigation Measure N-1, can achieve up to 15 dBA of noise reduction when breaking the line-of-sight between the construction site and the receptor (Bies et al. 2017). Implementation of Mitigation Measure N-1 would ensure that interior noise levels in classrooms do not exceed 50 dBA L_{eq}.

During Phase 1, with installation of temporary noise barriers along the southern boundary of the phase area adjacent to Morning View Drive, construction noise would be reduced to approximately 70 dBA L_{eq}, which would be below the threshold of 80 dBA L_{eq}. Although Project-level details for Phases 2 through 4 are not known at this time, Mitigation Measure N-1 would ensure that temporary noise barriers are erected when construction activities would be within the screening distance of 100 feet from the sensitive receptor property line.

As discussed above, in Impact 5.11-1, due to topography in the area of Phase 4, residences on Via Cabrillo are higher in elevation than proposed Phase 4 construction on the west end, and residences on Morning View Drive are higher in elevation than the proposed Bus Barn construction. Therefore, the use of temporary noise barriers would not be as effective in reducing construction noise. Also, because of the anticipated construction duration over multiple years for full buildout, construction noise impacts associated with implementation of the Proposed Project are considered significant and unavoidable for off-site receptors.

Impact 5.11-2

Mitigation Measure N-2 would require that all future bus testing is conducted inside an enclosed structure with open doors facing away from sensitive receptors to the south and west. This would reduce bus barn noise levels by at least 25 dBA. With implementation of Mitigation Measure N-2, bus barn noise would be reduced to 39 dBA L_{eq} or less at nearby residential property lines to the south and west, which would not exceed the nighttime threshold of 40 dBA L_{eq} for rural residential uses. With implementation of Mitigation Measure N-2, Impact 5.11-2 related to operational noise from the relocated bus barn would be reduced to a level of less than significant.

5.11.6 Cumulative Impacts

Construction Noise

The closest cumulative project is the Trancas Bridge replacement, approximately one mile northwest of the Project Site. At this distance, construction noise and vibration from the Trancas Bridge replacement would not contribute significantly to construction noise from the Proposed Project.

Traffic Noise

A project is considered to have a significant cumulative traffic noise impact where a potentially significant traffic noise increase occurs and the project's cumulative contribution is calculated to be 1 dBA or more. As shown in Table 5.11-8, cumulative traffic noise increases would not exceed the tiered thresholds relative to the existing ambient. Therefore, cumulative traffic noise would be less than significant.

5.11.7 References

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5. Environmental Analysis
NOISE

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5.12 PUBLIC SERVICES

This section of the Draft Environmental Impact Report (DEIR) addresses the Malibu Middle and High School Campus Specific Plan Project's (Proposed Project) impacts to public services providing fire protection and emergency services and police protection. Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 5.15, *Utilities and Service Systems,* of this DEIR.

The analysis in this section is based in part on the service provider letter responses in Appendix L of this DEIR.

Two comment letters were received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project—one from the Los Angeles County Sheriff's Department (LASD) and the other from the County of Los Angeles Fire Department (LACoFD)—regarding the Proposed Project's potential to increase demand for law enforcement and emergency services in the Fire Hazard Severity Zone, which are evaluated in this section. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.12.1 Environmental Setting

5.12.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to public services that are applicable to the Proposed Project are summarized below.

Federal

International Fire Code

The International Fire Code (IFC) regulates minimum fire safety requirements for new and existing buildings, facilities, storage, and processes. The IFC includes general and specialized technical fire and life safety regulations addressing fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire, and explosion hazards safety, use and storage of hazardous materials, protection of emergency responders, industrial processes, and many other topics. The IFC is issued by the International Code Council, an international organization of building officials.

State

California Fire Code

The California Fire Code (CFC; California Code of Regulations, Title 24, Part 9) is based on the 2015 IFC and includes amendments from the State of California fully integrated into the code. The California Fire Code contains fire safety–related building standards that are referenced in other parts of Title 24 of the California Code of Regulations. The CFC is updated once every three years, and the 2016 CFC took effect on January 1, 2017.

California Health and Safety Code

§§ 13000 et seq. of the California Health and Safety Code include fire regulations for building standards (also in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8, §§ 1270, "Fire Prevention," and 6773, "Fire Protection and Fire Fighting Equipment," the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include but are not limited to guidelines on the handling of highly combustible materials; fire house sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all firefighting and emergency medical equipment.

Regional

Los Angeles County 2035 General Plan

Though the Project Site is not in unincorporated Los Angeles County, it is served by the Los Angeles County Sheriff's Department. Therefore, the Los Angeles County 2035 General Plan goals and policies with regard to fire and emergency services in unincorporated communities in the county are relevant to the Proposed Project (Los Angeles County 2015).

- **Policy S 3.1:** Discourage high density and intensity development in Very High Fire Hazard Severity Zone (VHFHSZ)**.**
- **Policy S 3.2**: Consider climate change implications in fire hazard reduction planning for Fire Hazard Severity Zones (FHSZ).
- **Policy S 3.3**: Ensure that the mitigation of fire related property damage and loss in FHSZs limits impacts to biological and other resources.
- **Policy S 3.4**: Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire-resistant building materials, vegetation management, fuel modification and other fire hazard reduction programs.
- **Policy S 3.5**: Encourage the use of low-volume and well-maintained vegetation that is compatible with the area's natural vegetative habitats.
- **Policy S 3.6**: Ensure adequate infrastructure, including ingress, egress, and peak load water supply availability for all projects located in FHSZs.

- **Policy S 3.7**: Site and design developments located within FHSZs, such as in areas located near ridgelines and on hilltops, in a sensitive manner to reduce the wildfire risk.
- **Policy S 3.8**: Support the retrofitting of existing structures in FHSZs to help reduce the risk of structural and human loss due to wildfire.
- **Policy S 3.9**: Adopt by reference the County of Los Angeles Fire Department Strategic Fire Plan, as amended.
- **Policy S 3.10**: Map oak woodlands in Los Angeles County as part of implementation of the Oak Woodlands Conservation Management Plan.
- **Policy S 3.11**: Support efforts to address unique pest, disease, exotic species and other forest health issues in open space areas to reduce fire hazards and support ecological integrity.
- **Policy S 3.12**: Support efforts to incorporate systematic fire protection improvements for open space, including facilitation of safe fire suppression tactics, standards for adequate access for firefighting, fire mitigation planning with landowners and other stakeholders, and water sources for fire suppression.

Goal S 4: Effective County emergency response management capabilities.

- **Policy S 4.1**: Ensure that residents are protected from the public health consequences of natural or man-made disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information.
- **Policy S 4.2**: Support County emergency providers in reaching their response time goals.
- **Policy S 4.3**: Coordinate with other County and public agencies, such as transportation agencies, and health care providers on emergency planning and response activities, and evacuation planning.
- **Policy S 4.4:** Encourage the improvement of hazard prediction and early warning capabilities.
- **Policy S 4.5:** Ensure that there are adequate resources, such as sheriff and fire services, for emergency response.
- **Policy S 4.6:** Ensure that essential public facilities are maintained during natural disasters, such as flooding.

Los Angeles County Code

The CFC and IFC are adopted with certain amendments by the County of Los Angeles in Title 32 of the County Code. The CFC requirements include emergency access, emergency egress routes, interior and exterior design and materials, fire safety features including sprinklers, and hazardous materials.

County of Los Angeles Fire Department Strategic Plan

The Strategic Plan is the result of a collaborative effort between several teams and managers throughout the LACoFD. It closely aligns with the 2016-2021 County of Los Angeles Strategic Plan, "Creating Connections: People, Communities, and Government," with a focus on the most important challenges and opportunities. The goals of the Strategic Plan include:

- **Goal 1 – Emergency Operations:** Enhance the lives of County residents by addressing societal challenges through Countywide initiatives and partnerships.
- **Goal 2 – Public Service:** Support community resilience by implementing environmental initiatives, catastrophic preparedness, and public education programs.
- **Goal 3 – Organizational Effectiveness:** The future of tomorrow's Fire Department will be built on maintaining accountability from an efficient organization of strong and capable staff who utilize advancements in technology to provide superior services to the public (LACoFD 2018).

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

The LUP identifies the following policies related to public services (City of Malibu 2002b):

Chapter 4: Hazards and Shoreline/Bluff Development

- **LUP Policy 4.2:** All new development shall be sized, designed and sited to minimize risks to life and property from geologic, flood, and fire hazard.
- **LUP Policy 4.3:** Information should be provided to the public concerning hazards and appropriate means of minimizing the harmful effects of natural disasters upon persons and property relative to siting, design and construction.
- **LUP Policy 4.45:** New development shall minimize risks to life and property from fire hazard through:

  a. Assessing site-specific characteristics such as topography, slope, vegetation type, wind patterns etc.;

  b. Siting and designing development to avoid hazardous locations;

c. Incorporation of fuel modification and brush clearance techniques in accordance with applicable fire safety requirements and carried out in a manner which reduces impacts to environmentally sensitive habitat to the maximum feasible extent;

d. Use of appropriate building materials and design features to insure the minimum amount of required fuel modification;

e. Use of fire-retardant, native plant species in landscaping. (Resolution No. 07-04)

- **LUP Policy 4.46:** New development within Environmentally Sensitive Habitat Areas and habitat buffers shall be sized, sited and designed to minimize the impacts of fuel modification and brush clearance activities on habitat and neighboring property.

- **LUP Policy 4.47:** Development adjacent to parkland shall be sited and designed to allow all required fire-preventive brush clearance to be located outside park boundaries unless no alternative feasible building site exists on the project site. A natural vegetation buffer of sufficient size should be maintained between the necessary fuel modification area and the public parkland, where feasible.

- **LUP Policy 4.48:** When brush clearance is required for fire safety, brushing techniques that minimize impacts to native vegetation, ESHA and that minimize erosion, runoff, and sedimentation shall be utilized.

- **LUP Policy 4.49:** Applications for new development, which require fuel modification, shall include a fuel modification plan for the project, prepared by a landscape architect or resource specialist that incorporates measures to minimize removal of native vegetation and to minimize impacts to ESHA, while providing for fire safety, consistent with the requirements of the applicable fire safety regulations. Such plans shall be reviewed and approved by the Forestry Division.

- **LUP Policy 4.50:** New development shall provide for emergency vehicle access and fire-flow water supply in accordance with applicable fire safety regulations.

- **LUP Policy 4.51:** All new development shall demonstrate the availability of an adequate water supply for fire protection, as required by applicable fire safety regulations.

- **LUP Policy 4.52:** Where applicable, property owners shall comply with applicable fire safety regulations for management of combustible vegetative materials (controlled burns) in fire hazardous areas.

- **LUP Policy 4.53:** The City shall coordinate with County, State and National Park agencies to develop a closure policy for public recreation areas during periods of extreme fire hazard.

- **LUP Policy 4.54:** Should the County of Los Angeles Fire Department policies regarding fuel management and fire protection conflict with the policies and provisions of the Malibu LCP, particularly those relating to the protection of ESHA, personnel from the Fire Department and the City of Malibu

shall meet and agree on measures to balance the need for fire protection for structures with the need to protect environmental resources.

- **LUP Policy 4.55:** Emergency actions to repair or replace or protect damaged or threatened development including public works facilities shall be the minimum needed to address the emergency and shall, to the maximum extent feasible, be the least environmentally damaging temporary alternative. A regular permit application shall be required as follow-up to all emergency protection devices or measures. All emergency protection devices shall be designed to facilitate removal and replacement with the alternative found to be consistent with all policies and standards of the LCP through the regular permit process.

- **LUP Policy 4.56:** All emergency permits shall be conditioned and tracked to insure that all authorized development is either removed or approved under a regular coastal development permit in a timely manner.

- **LUP Policy 4.57:** A permit tracking and monitoring system to identify and prevent the illegal and unpermitted construction of shoreline protection structures should be developed as a component of the code enforcement program (City of Malibu 2002).

Malibu Municipal Code

The following provisions from the Malibu Municipal Code focus on fire service impacts associated with new development projects and are relevant to the Proposed Project:

- **Chapter 8.12 (Fire Code Adopted):** The City Council adopts and incorporates by reference into the MMC the 2019 Edition CFC. The CFC sets forth requirements including emergency access, emergency egress routes, interior and exterior design and materials, fire safety features including sprinklers, and hazardous materials.

Policy 8.12.030 Liability for Causing Fires: Any person who personally or through another willfully, negligently, or in violation of law sets a fire, allows a fire to be set, or allows a fire kindled or attended by such person to escape from his or her control, or allows any hazardous material to be handled, stored or transported in a manner not in accordance with the fire code or with nationally recognized standards, or allows any hazardous material to escape from his or her control, or neglects to properly comply with any written notice of the fire chief, or willfully or negligently allows the continuation of a violation of the fire code and amendments thereto is liable for the expense of fighting the fire or for the expense incurred during a hazardous materials incident, and such expense shall be a charge against that person. Such charge shall constitute a debt of such person and is collectible by the public agency incurring such expense in the same manner as in the case of an obligation under a contract, expressed or implied. (Ord. 480 section 2, 2021).

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 4. Circulation and Infrastructure Element

The Circulation and Infrastructure Element addresses the circulation of people, goods, energy, water, sewage, and communications. Its purpose is to ensure that public transportation, services, and utilities are available to permit orderly growth and to promote public health, safety, and welfare. The element sets policies and standards for the rational and cost-efficient provision and extension of public services to support planned development and protect natural resources. It addresses present conditions and concerns and sets measures for improvement. It is structured to accommodate future growth and development patterns. The Circulation and Infrastructure Element has the following goals, policies, and objectives related to public services:

Section 4.3.1, Fire Protection. The LACoFD provides fire protection service to Malibu. Currently, four stations (Nos. 70, 71, 88, and 99) directly serve the city, but all LACoFD resources are available to serve the city.

The adequacy of fire protection services is assessed according to standards of response distance from a fire station. The distance standards vary according to the type and intensity of residences. (In the event of a major fire, additional equipment is kept in reserve at most of the stations to be used by off-duty firefighters. The Ventura County Fire Department's staff indirectly provides fire protection services to the Santa Monica Mountains by protection and control of fires on adjacent lands. The National Park Service also provides additional fire protection.

Section 4.3.2, Police Services. The City of Malibu is served by LASD, which operates a station in the Lost Hills area north of the city; LADS recently closed its station in the Civic Center. Police protection in the city is hampered by the length of the city and its relatively low density. The secluded orientations of many residential neighborhoods provide little or no opportunity for regular visual inspection from major arterial roadways. Average response time is within normal range because the Lost Hills station is fully staffed (City of Malibu 1995).

- **C Objective 2.2:** An Adequate Water Supply For Daily And Emergency Use By The Year 2000.
    - **C Policy 2.2.1:** The City shall ensure adequate water storage for firefighting and other emergencies.

Chapter 5. Safety and Health Element

The Safety and Health Element identifies various policies addressing natural and human-related hazards and the potential methods to reduce risks associated with those hazards. The information in the Safety Element is related to geologic resources. These goals and objectives are considered by the City of Malibu when reviewing proposed development applications. It is an applicant's responsibility to provide the City with appropriate geological and/or geotechnical information so it can determine whether a project meets the General Plan goals and objectives. The Safety and Health Element identifies the following goals and policies for future development in the city.

- **S Objective 1.1:** Losses to life and property from natural and man-made hazards greatly reduced from historic levels.

- **S Policy 1.1.1:** The City shall protect people and property from environmental hazards.
- **S Policy 1.1.2:** The City shall minimize the risk of loss from fire**.**

- **S Objective 1.3:** An ongoing, permanent program for cooperating with other jurisdictions, agencies, and public and private organization to help meet the goals of the Safety and Health Element.
  - **S Policy 1.3.1:** The City shall strive to ensure uses within Malibu's Planning Area are consistent with the safety, health and welfare of the Malibu community.
- **S Objective 2.1:** A comprehensive plan for response to all levels of emergency situations.
  - **S Policy 2.1.1:** The City shall cooperate to achieve efficient and prompt response by local agencies to those emergencies which require no outside help.
  - **S Policy 2.1.2:** The City shall coordinate efficient utilization of emergency assistance provided by neighboring communities and county agencies under mutual-aid response.
  - **S Policy 2.1.3:** The City shall develop a plan to ensure that in situations of extreme emergency the community is prepared to survive until outside assistance arrives.
- **S Objective 2.2:** A comprehensive plan for recovery from all levels of emergency situations is developed and updated as needed.
  - S Policy 2.2.1: The City shall facilitate timely recovery from all disasters.
- **S Objective 3.1:** Actively promote health and safety so that residents are exceptionally safe and healthy by national standards.
  - **S Policy 3.1.1:** The City shall facilitate programs so that people feel safe, and crime and violence are minimized.
  - **S Policy 3.1.3:** The City shall assess risks to the health and safety of citizens and visitors, and inform the public about those risks and ways to avoid them.
  - **S Policy 3.1.6:** The City shall provide effective and efficient law enforcement protection services.

5.12.1.1 EXISTING CONDITIONS

Fire Protection Services

The LACoFD Division 7 provides fire protection, paramedic, and emergency response services to Malibu and the Project Site. According to the LACoFD's 2020 Statistical Summary, there are 119 chief officers, 702 captains, 821 firefighter specialists, 718 firefighter paramedics, 719 firefighters, 74 call firefighters, and 14 pilots that staff 177 fire stations throughout LACoFD's service area (LACoFD 2020). Four fire stations serve

Malibu, and the closest to the Project Site is Station 71. Table 5.12-1, *Fire Stations Serving the Project Site*, provides information regarding the location of each fire station and its distance to the Project Site.

Table 5.12-1 Fire Stations Serving the Project Site

Station	Address	Distance from Project Site
Fire Station 70	3970 Carbon Canyon Road	11.1 miles
Fire Station 71	28722 Pacific Coast Highway	2.3 miles
Fire Station 88	23720 Malibu Road	8.7 miles
Fire Station 99	32550 Pacific Coast Highway	3.9 miles

Source: LACoFD 2020.

Fire Station 71 is staffed with 5 personnel daily—a 3-person engine company staffed with a captain, a firefighter specialist, and a fire fighter/paramedic, and a 2-person paramedic squad staffed with 2 fire fighters/paramedics (LACoFD 2020). LACoFD has established an average service response time goal of 5 minutes for both first-in response units and basic life support units and a goal of 8 minutes or less for advanced life support units. During 2019, Fire Station 71 had an average emergency response time of 4.27 minutes for first-in response units (LACoFD 2020). Los Angeles County has a fire protection facilities fee (developer fee) for the benefit of the fire protection district in effect on the Project Site and a special tax approved by voters in June 1997.

LACoFD includes a Forestry Division that provides natural resource management services and programs, including information about brush clearance, vegetation management, and fire danger. It provides guidelines and reviews for landscape and irrigation plans submitted by property owners for approval before construction or remodeling (City of Malibu 2021).

Police Protection Services

Law enforcement service in Malibu is provided by LASD, and the closest sheriff's station to the Project Site is the Malibu/Lost Hills Station at 27050 Agoura Road in Calabasas, approximately 17 miles from the Project Site. The Malibu/Lost Hills Station is equipped with 34 patrol cars and staffed by 130 sworn personnel and 30 professional staff (see Appendix L). The station's fees for law enforcement services are currently funded through a contract agreement with the City of Malibu.

LASD has established an average service response time goal of 7.7 minutes for emergency response incidents (a crime in progress or a life-or-death situation), 15.9 minutes for priority response incidents (a crime or incident in progress but not a life-or-death situation), and 38.2 minutes for routine response incidents (a crime that has already occurred and is not a life-or-death situation). For the latest year for which data were available, the station's average response time was 7.5 minutes for emergency response incidents, 13.7 minutes for priority response incidents, and 35.4 minutes for routine response incidents.[1]

[1] These are approximate time ranges and can be affected by traffic conditions. Additionally, these response times are variable depending on the location of the responding unit to the service area.

5.12.2 Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project would:

PS-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

(i) Fire Protection

(ii) Police Protection

(iii) Schools

(iv) Parks

(v) Libraries

(vi) Other Public Facilities

The IS/NOP, included as Appendix B to this DEIR, substantiates that impacts associated with the following thresholds would be less than significant; therefore, these impacts will not be further addressed in this DEIR:

- Threshold PS-1(iii), Schools
- Threshold PS-1(iv), Parks
- Threshold PS-1(v), Libraries
- Threshold PS-1(vi), Other Public Facilities

5.12.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.12-1: The Proposed Project would not affect response times or other performance objectives that would result in the need for new or physically altered fire protection facilities, the construction of which would cause significant environmental impacts. [Threshold PS-1(i)]

The Proposed Project would redevelop and modernize the existing MMHS campus and former JCES campus. Implementation of the Proposed Project would result in demolition of all eight buildings and eight portables on the former JCES campus and six buildings and associated amenities on the MMHS campus,

totaling 154,904 square feet of demolition. Due to the nature of the facilities proposed, there is potential that such conditions could increase the need for fire protection services, alter response times, or adversely affect LACoFD's ability to provide service to the site using existing equipment and personnel.

Construction

Construction of the Proposed Project would occur in four phases, anticipated to begin in fall 2022 and be complete in summer 2030. Phase 1 would begin in fall 2022 and be completed by summer 2024, Phase 2 is anticipated to begin in fall 2024 and be completed by fall 2026, Phase 3 is anticipated to begin in fall 2028 and be completed by fall 2030, and Phase 4 is anticipated to begin in spring 2030 and be completed by spring 2031. Project construction activities would include grading and excavation, trenching for utilities, demolition and construction of the buildings, paving, and finishing and would require construction workers, equipment, and vehicles on the site during each phase.

According to the California Department of Forestry and Fire Protection, the Project Site is in a very high fire hazard severity zone (VHFHSZ) in a local responsibility area (LRA); the likelihood is high that it would be exposed to a wildland fire and secondary effects of wildland fires. Potential impacts in the LRA VHFHSZ are discussed in greater detail in Section 5.16, *Wildfire*, of this DEIR.

Project construction activities could result in exacerbated fire risks due to sparks, dry vegetation, smoking, and weather, particularly in areas where construction activities are in proximity to surrounding open space areas (i.e., Phases 1, 2, and 4). Mitigation Measure W-1, as defined in Section 5.16, *Wildfire*, would ensure fire prevention requirements are in place during all phases of construction activities. The Proposed Project would be required to comply with the most currently adopted fire codes, building codes, and nationally recognized fire and life safety standards of Malibu, Los Angeles County, and the State of California. Compliance with these codes and standards is ensured through the City's and LACoFD's development review and building plan check process.

Additionally, in the event of an emergency at the Project Site that requires more resources than Station 71 could provide, LACoFD would direct resources to the site from other nearby stations, including Fire Station 99 (3.9 miles from the Project Site), Fire Station 88 (8.9 miles from the Project Site), and Fire Station 70 (11.1 miles from the Project Site). If necessary, LACoFD could request assistance from other nearby fire departments, including the City of Los Angeles Fire Department and the Ventura County Fire Department. Therefore, construction of the Proposed Project would not affect response times or other performance objectives that result in the need for new or physically altered fire protection facilities, the construction of which would cause significant environmental impacts. Construction impacts would be **less than significant**.

Operation

The Proposed Project would result in an overall reduction in the number of structures on the campus. Currently, 25 buildings are on campus (including portable structures), and after construction of all phases, 10 buildings would be on campus. Most of the new structures would be on the flat, previously developed areas of campus, and existing slope conditions would remain. Fewer structures could result in a reduced demand for fire response and protection in the event of emergency.

The Proposed Project would create greater setbacks from the ESHA and would not introduce large amounts of nonnative vegetation onsite. The Proposed Project would result in demolition of structures within the ESHA buffer area, such as the bus barn, the playfield at the former JCES, and surface parking.

The Proposed Project would redevelop and modernize the existing MMHS campus and former JCES campus and would not introduce new uses to the Project Site. According to the LACoFD's Planning Division, the fire services need in the City of Malibu are currently being met, and there are no plans for additional resources, personnel, and equipment in the Project Area. Additionally, though new development projects may create greater demands on existing resources, the Proposed Project would have a negligible effect on service standards (LACoFD 2020) (see Appendix L). Therefore, operation of the Proposed Project would not increase the requirement for fire protection facilities and personnel, would not adversely affect the LACoFD's ability to provide adequate service, and would not require new or expanded police facilities that could result in adverse environmental impacts. Operational impacts of the Proposed Project would be **less than significant**.

Impact 5.12-2: The Proposed Project would not affect response times or other performance objectives that result in the need for new or physically altered police protection facilities, the construction of which would cause significant environmental impacts. [Threshold PS-1(ii)]

Construction

Access to the Project Site and the surrounding areas could be affected by construction of the Proposed Project. Temporary construction-related traffic could delay or obstruct the movement of LASD vehicles within or through the project area. However, construction traffic would be scheduled in concert with the operations of the school, ensuring that trucks are not moving in or out during drop-off or pick-up times. Additionally, designated construction staging areas would be implemented for stockpiling and storage of construction equipment, and all workers would be expected to park within the site limits. The District would provide notice of construction activities that would affect access to emergency facilities. Any disruptions in access would be temporary and short term. Therefore, the Proposed Project would not adversely affect the LASD's ability to provide adequate service during construction of the Proposed Project and would not require new or expanded police facilities that could result in adverse environmental impacts. Impacts would be **less than significant**.

Operation

The Malibu/Lost Hills Station currently has 130 sworn personnel and 30 professional staff, and the station can serve the Proposed Project with existing facilities. Implementation of the Proposed Project is not anticipated to significantly increase LASD's response times to either to the Project Site or the surrounding vicinity; however, in the event of an emergency at the Project Site that requires more resources than the Malibu/Lost Hills Station could provide, LASD would direct resources to the site from other nearby stations, including the Marina Del Rey Sheriff's Station and the West Hollywood Sheriff's Station. If necessary, LASD can request assistance from other nearby police/sheriff's departments, including the Santa Monica Police Department, the Los Angeles Police Department, and the Ventura County Sheriff's Department.

The Proposed Project is intended the modernize the campus facilities and retain the existing capacity of 1,200 students (750 high school students and 450 middle school students). The Proposed Project would not include a residential component that would directly increase the residential population in the area, so the student and staff populations of the school are not anticipated to increase. Thus, according to the LASD's Facilities and Planning Bureau, the Malibu/Lost Hills Station would be able to serve the Proposed Project with existing facilities. Although the Proposed Project would be open to community use in addition to the student population, which could pose the need for additional resources, the station could meet the increased needs with the existing resources and personnel (LASD 2020) (see Appendix L). Implementation of the Proposed Project would comply with all applicable building codes and safety standards of Malibu, Los Angeles County, and the State of California. Therefore, the Proposed Project would not adversely affect the LASD's ability to provide adequate service and would not require new or expanded police facilities that could result in adverse environmental impacts. Impacts would be **less than significant**.

5.12.4 Mitigation Measures

No potentially significant impacts have been identified, and no mitigation measures are required.

5.12.5 Level of Significance After Mitigation

No mitigation measures have been identified, and impacts are less than significant.

5.12.6 Cumulative Impacts

5.12.6.1 FIRE PROTECTION AND EMERGENCY SERVICES

The geographic area for cumulative analysis of fire protection services is the service territory for LACoFD's Division 7, which includes the cities of Malibu, Agoura Hills, Calabasas, Hidden Hills, West Hollywood, and Westlake Village. Cumulative projects in Division 7 would require increased fire protection and emergency services to serve new development. Residential and employment population increases would result in an increased demand for public services and facilities, including fire protection. The impacts of new development are evaluated on a case-by-case basis. Service providers would continue to evaluate levels of service and potential funding sources to meet demand. However, according to the LACoFD, though new development projects may create greater demands on existing resources, the Proposed Project would have a negligible effect on service standards (LACoFD 2020)(see Appendix L).In the event of an emergency at the Project Site that required more resources than the Station 71 could provide, LACoFD would direct resources to the site from other nearby stations and could request assistance from other nearby fire departments, including the City of Los Angeles Fire Department and the Ventura County Fire Department.

With regard to cumulative impacts related to wildfire risks due to slope, prevailing winds, and other factors, related development and redevelopment projects would be within either an SRA or LRA VHFHSZ and within areas characterized by hills and mountains (wildland-urban interface). Each related project would be evaluated and would be required to adhere to applicable CBC, CFC, and local code development requirements and standards to reduce potential wildfire risk and exposure of occupants to pollutant concentrations from a wildfire. Implementing fuel modification zones and using fire-resistant construction

materials are examples of standards to minimize potential impacts related to the uncontrolled spread of a wildfire. Cumulative projects may require associated infrastructure, such as roads, fuel breaks, and power lines, that could exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. These projects would be reviewed by their respective jurisdictions for land use and zoning consistency and compliance with applicable design requirements. Therefore, the Proposed Project is not anticipated to contribute to a significant cumulative impact, and thus would result in a less than significant cumulative impact.

5.12.6.2 POLICE PROTECTION

Cumulative projects within Los Angeles County would require increased law enforcement services to serve new development. Local population growth would result in an increased demand for public services and facilities, including law enforcement. The impacts of new development are evaluated on a case-by-case basis. Service providers would continue to evaluate levels of service and potential funding sources to meet demand. Development projects would be reviewed by LASD staff prior to development permit approval to ensure adequate security measures are provided for each site-specific development in the county.

As discussed above, the Proposed Project does not include a residential component that would directly increase the residential population in the area, so the student and staff populations of the school are not anticipated to increase. According to the LASD, although the Proposed Project would be open to community use in addition to the student population, which could pose the need for additional resources, the station could meet the increased needs with the existing resources and personnel (LASD 2020) (see Appendix L). Therefore, cumulative impacts associated with police services from implementation of the Proposed Project would be less than cumulatively significant.

5.12.7 References

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5. Environmental Analysis
PUBLIC SERVICES

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5.13 RECREATION

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Malibu Middle and High School Campus Specific Plan Project (Proposed Project) to impact public parks and recreational facilities.

Three comment letters were received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project regarding the Proposed Project's potential impacts on access to the equestrian riding trail; these impacts are evaluated in this section below. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.13.1 Environmental Setting

5.13.1.1 REGULATORY BACKGROUND

State and local laws, regulations, plans, or guidelines related to public parks and recreation facilities that are applicable to the Proposed Project are summarized in this section.

State

Quimby Act

The Quimby Act of 1975 (California Government Code section 66477) was enacted to help mitigate the impacts of development on the availability and quality of park facilities and open spaces. Under the Quimby Act, local governments are granted authority to reserve land for recreational uses. The Quimby Act also requires new developments to contribute in-lieu fees to local governments or devote land for recreational uses. The City of Malibu adopted the requirements of the Quimby Act in Chapter 16.36 (Park and Recreational Dedication and Fees) of the Malibu Municipal Code.

Mitigation Fee Act

The California Mitigation Fee Act, Government Code §§ 66000, et seq., allows cities to establish fees that are imposed on development projects for the purpose of mitigating the impact that the projects have on the City's ability to provide specified public facilities. To comply with the Mitigation Fee Act, the City must follow four primary requirements: (1) Make certain determinations regarding the purpose and use of a fee and establish a nexus or connection between a development project or class of project and the public improvement being financed with the fee; (2) Segregate fee revenue from the General Fund to avoid commingling of capital facilities fees and general funds; (3) For fees that have been in the possession of the city for five years or more and for which the dollars have not been spent or committed to a project the city must make findings each fiscal year describing the continuing need for the money; and (4) Refund any fees with interest for developer deposits for which the findings noted above cannot be made.

California Public Park Preservation Act

The primary instrument for protecting and preserving parkland in the state is California's Public Park Preservation Act of 1971. Under the California Public Resource Code, cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation, land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

California Coastal Act of 1976

The California Coastal Act of 1976 (CCA) is the permanent enacting law approved by the State legislature. The CCA established a set of policies, coastal boundary lines, and permitting procedures regulating coastal development. Further, it provides for the transfer of permitting authority, with certain limitations reserved for the State, to local governments through adoption and certification of Local Coastal Programs (LCPs) by the California Coastal Commission (CCC). Section 30211 of the CCA is intended to ensure that new development does not interfere with the public's right of access to the ocean acquired through use or legislative authorization.

Local

City of Malibu's Local Costal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

The LUP identifies the following policies related to recreation (City of Malibu 2002b):

Chapter 2: Public Access and Recreation

The following policies related to recreational facilities are relevant to the Proposed Project.

- **LUP Policy 2.1:** The shoreline, parklands, beaches, and trails located within the city provide a wide range of recreational opportunities in natural settings which include hiking, equestrian activities, bicycling, camping, education study, picnicking and coastal access. These recreational opportunities shall be protected and where feasible, expanded or enhanced as a resource of regional, state, and national importance.

- **LUP Policy 2.2**: New development shall minimize impact to public access to and along the shoreline and inland trails. The City shall assure that the recreation needs resulting from proposed development will not overload nearby coastal recreation areas by correlating the amount of development with local park

acquisitions and/or development with provision of onsite recreational facilities to serve new development.

- **LUP Policy 2.3**: Public prescriptive rights may exist in certain areas along the shoreline and trails within the city. Development shall not interfere with public's right of access to the sea where acquired through historic use or legislative authorization. These rights shall be protected through public acquisition measures or through per conditions for new development, which incorporate measures to provide or protect access when there is substantial evidence that prescriptive rights exist.

- **LUP Policy 2.5**: New development shall be sited and designed to minimize impacts to public access and recreation along the shoreline and trails. If there is no feasible alternative that can eliminate or avoid all access impacts, then the alternative that would result in the least significant adverse impact shall be required. Impacts may be mitigated through the dedication of an access or trail easement where the Project Site encompasses an LCP mapped access or trail alignment, where the city, County, State, or other public agency has identified a trail use by the public, or where there is substantial evidence that prescriptive rights exist. Mitigation measures required for impacts to public access and recreational opportunities shall be implemented prior to or concurrent with construction of the approved development.

- **LUP Policy 2.6**: Mitigation shall not substitute for implementation of a feasible project alternative that would avoid impacts to public access.

- **LUP Policy 2.12**: For any new development adjacent to or within 100 feet of a public park, beach, trail or recreation area, notice of proposed development shall be provided, as applicable, to Los Angeles and Ventura Counties, the National Park Service, the California Department of Parks and Recreation and the Santa Monica Mountains Conservancy for their review with regard to potential impacts to public access, recreation, environmentally sensitive habitat and any other sensitive environmental resources.

- **LUP Policy 2.40**: For any project where the LCP requires an offer to dedicate an easement for a trail or for public beach access, a grant of easement may be recorded instead of an offer to dedicate an easement if a government agency or private association is willing to accept the grant of easement and is willing to operate and maintain the trail or public beach accessway.

- **LUP Policy 2.45**: An extensive public trail system has been developed across the Santa Monica Mountains that provides public coastal access and recreation opportunities. This system includes trails located within state and national parklands as well as those which cross private property in the city and County. The city's existing and proposed trails are shown on the LUP Park Lands Map. A safe trial system shall be provided through the mountains and along the shoreline that achieves the following:

  a. Connected parks and major recreational facilities
  b. Links with trail systems of adjacent jurisdictions
  c. Provides recreational corridors between the mountains and the coast

d. Allows for flexible, site-specific design and routing to minimize impacts on adjacent development and fragile habitats. In particular, ensure that trails located within, or adjacent o Environmentally Sensitive Habitat Areas are designed to protect fish and wildlife resources
e. Provide connections with populated areas
f. Include trails designed to accommodate multiple uses (hiking, biking, and equestrian) where multiple uses can be provided safely for all users and where impacts to coastal resources are minimized
g. Reserves certain trails for hiking only
h. Facilitates linkages to community trail systems
i. Provides diverse recreational and aesthetic experiences
j. Prohibits public use of motorized vehicles on any trail
k. Provides public parking at trail head areas
l. Ensures that trails are used for the intended purpose and that trail use does not violate private property rights

- **LUP Policy 2.46**: The appropriate agency or organization to accept and develop trail dedication offers resulting from City issued CDPs shall be determined through coordination, where applicable, with the National Park Service, the State Department of Parks and Recreation, the State Coastal Conservancy, Los Angeles County, the Santa Monica Mountains Coastal Conservancy, and the Santa Monica Mountains Trail Council, and nonprofit land trusts or associations.

- **LUP Policy 2.49**: A trail offer of dedication shall be required in new development where the property contains an LCP mapped trail alignment or where there is substantial evidence that prescriptive rights exist. An existing trail which has historically been used by the public may be relocated as long as the new trail alignment offers equivalent public use. Both new development and the trail alignment shall be sited and designed to provide maximum privacy for residents and maximum safety for trail users.

- **LUP Policy 2.50**: The opening of a trail easement that was dedicated for public use as a term or condition of a Coastal Development Permit shall occur only after a public agency or private association has accepted the offer of dedication and agreed to open, operate, and maintain the trail. New offers to dedicate public trail easements shall include an interim deed restriction that (1) states that the terms and conditions of the permit do not authorize any interference with prescriptive rights, in the areas subject to the easement prior to acceptance of the offer and (2) prohibits any development or obstruction in the easement prior to acceptance of the offer.

Local Coastal Program's Local Implementation Plan

Chapter 12 (Public Access Ordinance) of the LCP Local Implementation Plan (LIP) serves the purpose of implementing the public access and recreation policies of Chapter 3 of the CCA and the LUP of the LCP, to maximize public access to the coast and public recreational opportunities. LIP section 12.6.6 (Protection of Historic Public Use) of the LCP states that areas used by the public are impliedly dedicated based on evidence of all of the following:

1. The public must have used the land for a period of five years or more as if it were public land.

2. Without asking for or receiving permission from the owner.
3. With the actual or presumed knowledge of the owner.
4. Without significant objection or bona fide attempts by the owner to prevent or halt the use.
5. The use must be substantial, rather than minimal.
6. The applicant must not have demonstrated that the law has prevented the property from being impliedly dedicated.

Since the Santa Monica-Malibu Unified School District (SMMUSD) is a public entity, there cannot be prescriptive rights over its campus (Civil Code section 1007). Further, neither the City of Malibu nor the CCC can adjudicate the existence of prescriptive rights or an implied dedication (see *LT-WR, L.L.C. v. Cal. Coastal Comm.* (2007) 152 Cal.App.4th 770,806). Thus, number 6, above, fails and there is no implied dedication of the Equestrian School Trail by the SMMUSD.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 2. Open Space and Recreation Element

The General Plan Open Space and Recreation Element identifies goals, objectives, policies, and implementation measures that deal with open space and recreation issues, including outdoor recreation facilities and trails. This Element is used as a guide for the maintenance of existing parkland, the acquisition and development of additional parks, and recreational facilities, as well as vacant open land. Applicable goals, objectives, policies, and implementation for the Proposed Project are as follows:

- **Objective 1.1**: Ample and diverse public parkland and open space, integrated by circulatory and visual links, to create a rural open feeling.

  To implement these policies the City shall:

  - **Implementation Measure 6**: Require property owners to mitigate the impact of development on parkland and open space through dedications of land or payment of in-lieu fees.

- **Policy 1.2.3**: The City shall require development to link and integrate open space visually and link open space to activity centers, other open spaces, and scenic routes through a system of trails.

- **Policy 1.2.4**: The City shall work cooperatively with schools to stretch the tax dollars through joint use of areas and facilities and co-sponsorship of programs and special events.

  To implement these policies the City shall:

- **Implementation Measure 29**: Develop shared-use agreements with the school district, and other public agencies which make available sports facilities, libraries, fields, classrooms, and auditoriums for public recreation.

- **Objective 3.1**: A comprehensive, safe, and accessible trail system serving hikers, equestrians, and bicyclists.

- **Policy 3.1.1**: The City shall create a safe, properly maintained trail system throughout Malibu's mountains and seashore than can achieve the following:

  - Link major recreation facilities
  - Link with trails systems of other jurisdictions
  - Provide recreational corridors between the mountains and the coast
  - Provide for flexible, site-specific design and routing to minimize impact on adjacent property, communities, and fragile habitats. In particular, ensure that trails located within ESHAs are designed to protect fish and wildlife
  - Provide connections with populated areas
  - Provide for and be designed to accommodate multiple use (walking, hiking, equestrian, and bicycle) where appropriate
  - Facilitate linkages to local trail systems
  - Provide for a diversity of recreational and aesthetic experiences
  - Designate trail use by physical constraints
  - Prohibit motorized vehicle on public trails

  To implement these policies the City shall:

  - **Implementation Measure 44**: Examine every development application for the existence of easements that connect with, and continue to allow public access to, recreation and open space areas, and monitor construction with a view toward the preservation of those easements.
  - **Implementation Measure 55**: Adopt procedures for investigating the validity of prescriptive rights. Where public prescriptive rights or implied dedication (historic public use) is found, require an offer of dedication or an equivalent public access easement. Site development in an area of historic public use only if equivalent type, intensity, and area of replacement public access are provided on or within 1,000 feet of the project parcel.

City of Malibu Parks and Recreation Master Plan

The City of Malibu's Parks and Recreation Master Plan, originally adopted in 2000, includes recommendations intended to serve as a framework for the acquisition of land and the development of recreation facilities for the city of Malibu. The goal of Parks and Recreation Master Plan is to balance open space resources with the need for active recreation. In 2012, a comprehensive update was compiled, and the updated Parks and Recreation Master Plan was adopted by the City Council on June 24, 2013.

City of Malibu Trails Master Plan

The City of Malibu's Trails Master Plan, adopted in May 2002, addresses the requirements and standards for trails and pathways throughout the city of Malibu as part of the City of Malibu's Parks and Recreation Master Plan, and addresses the need for a Malibu trails system that would link the community through trails. The Malibu Trails Master Plan Ad Hoc Committee oversees the implementation of the Trails Master Plan. The Trails Master Plan addresses the need for a Malibu trails system that would link the community through trails. The stated objective of the Trails Master Plan is the development of a Malibu trails system that would include an east-west trail spanning the entire length of the city of Malibu with north-south connectors to the main trail and connectors to trailheads and to the backbone trail segments in the Santa Monica Mountains.

The Malibu Trails System Maps were revised in 2004 and adopted by the Malibu City Council as part of the approval of the Trails Master Plan and used as a planning tool for development of the Malibu trails system. Additionally, the Malibu/Santa Monica Mountains Area Trail System was prepared by the City of Malibu and adopted by the City Council on April 11, 2016. These maps do not identify any trails located on the SMMUSD property, but do identify nearby trails, including the Morning View Pathway (Trail 7), Morning View Connector to Equestrian Center (Trail 8), and the Busch Pathway (Trail 9). Appendix A of the Trails Master Plan (Trails Ledger) identifies existing and proposed trails within the city of Malibu. The Malibu Equestrian Trail located on the Project Site is included in this inventory.

5.13.1.2 EXISTING CONDITIONS

City Parks and Recreation Facilities

The City of Malibu Community Services offers a number of parks and recreation programs and services to Malibu residents. According to the City of Malibu's Park and Recreation Master Plan (Master Plan) adopted in June 2013, the City of Malibu operates a total of 571 acres of parkland in the city, of which, 531 acres is owned by the City of Malibu and the remaining 40 acres is leased. Parkland owned by the City includes Charmlee Wilderness Area, Las Flores Creek Park, Legacy Park, Malibu Bluffs Park, Malibu Equestrian Park, and Trancas Canyon Park.

In 2006, the City of Malibu purchased 10 acres of the 30-acre Malibu Bluff State Park, and in 2010, construction was completed on two new parks in the city of Malibu, including the 13-acre Trancas Canyon Park, with a variety of recreational opportunities and the 17-acre Legacy Park, which functions as the city of Malibu's central park. The Malibu Equestrian Center (10 acres), located immediately southeast of the Project Site on District property, is managed, and operated by the City of Malibu through an agreement with SMMUSD. The facility contains two riding arenas, a picnic area, and restrooms. The facility is used for private horse shows and lessons and is also open to the public for practice and recreational riding (City of Malibu 2021). The MMHS campus is separated from the Equestrian Center by the Malibu Equestrian Trail, located on a low, undeveloped hillside. Therefore, the City of Malibu currently owns approximately 571 acres of parkland and operates or manages another 30 acres.

Trails

The Trails Master Plan identifies five distinct trail categories. These categories include the Malibu Pacific Trail (MPT), established connector trails, neighborhood trails, trails offered by property owners, and Safe Routes to Schools (a City-run program). The various types of trails in Malibu include hiking trails, pedestrian pathways, Safe Routes to School, equestrian, bike paths, and bike lanes on major streets.

The Backbone Trail is a trail that roughly follows the crest of the Santa Monica Mountains National Recreation Area (SMMNRA) for 70 miles from Point Mugu to Will Rogers State Historic Park. This trail attempts to tie together the individual parks of the Santa Monica Mountains, including those in the city of Malibu, including Malibu Creek State Park. The City of Malibu's Trails Master Plan identifies the MPT as the Backbone Trail for the City of Malibu. The MPT is accessible to residents via established connector trails, neighborhood trails, and Safe Routes to School.

Los Angeles County Recreation Facilities

In addition to recreational facilities managed by the City of Malibu, approximately 1,541 acres of parklands located within Malibu are operated by Los Angeles County, the California Department of Parks and Recreation (DPR), the Santa Monica Mountain Conservancy (SMMC), and the United States National Park Service (NPS). Los Angeles County owns and operates recreational facilities at Malibu County Beach, Nicholas Canyon Beach, and Zuma County Beach, and operates a number of parks within Point Dume State Beach. According to the Master Plan, DPR owns and manages Malibu Lagoon State Park, Malibu Pier, Malibu Creek State Park, Malibu Bluffs State Park, Point Dume State Beach, Robert H. Meyer Memorial State Beach, and the Malibu Pier. The SMMC owns Corral Canyon Park and Solstice Canyon Park, which are managed by the NPS.

Santa Monica Mountains National Recreation Area

The city of Malibu is completely contained within the SMMNRA, which is administrated by the NPS. The SMMNRA offers the city of Malibu numerous passive recreation opportunities, and an extensive system of trails. The largest contiguous land holding in the SMMNRA is the combined watersheds of Zuma and Trancas Canyons, with the lower canyons falling within the city limits of Malibu.

Private and School Recreation Facilities

Private recreation facilities in the city of Malibu include the Malibu Golf Course, camps and equestrian stables, and Pepperdine University. Four school facilities owned by the District, including MMHS, also provide recreational opportunities for residents of the city on a limited basis. Recreational uses provided on the Project Site include the Boys & Girls Club, one pool, a track and field facility, one baseball field, one softball field, four tennis courts, and one soccer/football field. When the school facilities are not in use and are not scheduled for school-sponsored or other District-related events, the Civic Center Act permits community organization and members to use school facilities for their events by obtaining a Civic Center Permit from the SMMUSD or the City of Malibu (California n.d.). Permitted events may include community and/or city use of the playfields, common areas, and classrooms, as permitted in the 2019 Master Agreement between SMMUSD and the City of Malibu Regarding the Joint Use of School District Facilities (SMMUSD and City of Malibu 2019). Operation of the school facilities for community use may occur outside normal

school operating hours, generally between 3:00 p.m. and 10:00 p.m. on weekdays, and between 8:00 a.m. and 10:00 p.m. on Saturday and Sundays. Parking for Civic Center uses would be provided in the school's on-site surface parking lots.

5.13.2 Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project:

R-1 Would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

R-2 Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The IS/NOP, included as Appendix B, substantiates that impacts associated with the following thresholds would be less than significant; therefore, these impacts will not be further addressed in this DEIR:

- Threshold R-1

5.13.3 Environmental Impacts

5.13.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.13-1: Project implementation would not result in environmental impacts to provide new and/or expanded recreational facilities. [Threshold R-2]

The Proposed Project includes the improvement of existing publicly available recreational facilities and amenities within the Project Site, including the middle school gymnasium/fitness center (Building D), and the high school gymnasium (Building J). Additionally, new recreational shared facilities would be developed, including an aquatics center/field house (Building L) and pool, and the upper field house (Building M). The improved shared facilities would be built to the north of the Middle School and High School Cores and west of the existing Main Sports Field. The Boys & Girls Club building would be relocated from its current location north of the pool and the existing Building J to the northwestern portion of the campus, north of Parking Lot E and south of the tennis courts.

A new field house (Building M) would be constructed for the existing baseball and softball fields, and one for the existing athletic field (Building L). Additionally, the Proposed Project would add two new tennis courts to the existing tennis court area on the northern side of the Project Site. The Proposed Project would also extend pedestrian trails throughout the campus that would start along the ESHA on the west and connect to a larger system of existing walking trails around the Equestrian Park and surrounding hills to improve pedestrian circulation and connect to the larger existing pedestrian trail network on District property. The

pedestrian trails along the ESHA would include turnouts, which would be used as outdoor learning spaces overlooking the ESHA within 50 feet of the ESHA boundaries. As in existing conditions, the trails would be accessible to the public during nonschool hours (see Figure 3-6, *Pedestrian Circulation Plan*). No changes to equestrian uses or trails would occur as part of the Proposed Project.

The Proposed Project would not involve any construction of recreational facilities beyond what is proposed to serve the existing and future students. Additionally, when the school facilities are not in use and are not scheduled for school-sponsored or other District-related events, use of the playfields, common areas, and classrooms would be available for public use, as permitted in the 2019 Master Agreement between SMMUSD and the City of Malibu Regarding the Joint Use of School District Facilities. Development and operation of new recreational facilities and amenities in the Project Site may have an adverse physical effect on the environment, including impacts relating to air quality, lighting, noise, and traffic. Environmental impacts associated with the construction and operation of new recreational facilities and amenities are analyzed throughout the topical sections of Chapter 5, *Environmental Analysis*, of this DEIR. As demonstrated in this DEIR, the development of recreational facilities and amenities in the Project Site would not result in significant impacts to the environment. Therefore, implementation of the Proposed Project would result in **less than significant** impacts related to new and/or expanded recreational facilities.

5.13.4 Mitigation Measures

No potentially significant impacts related to recreation have been identified and no mitigation measures are required.

5.13.5 Level of Significance After Mitigation

No mitigation measures are required, and impacts would be less than significant.

5.13.6 Cumulative Impacts

The geographic context for the analysis of cumulative recreation impacts includes the city of Malibu. The analysis accounts for all anticipated cumulative growth within this geographic area. Development of cumulative projects in Malibu could result in construction of recreational facilities that might have an adverse effect on the environment, particularly with regard to air quality, lighting, noise, and traffic. However, cumulative development projects would be required to comply with all applicable existing regulations, procedures, and policies that are intended to address impacts to park and recreation facilities. Therefore, cumulative impacts related to park and recreational space and facilities would be less than significant.

5.13.7 References

Malibu, City of. 1995, November. City of Malibu General Plan. https://qcode.us/codes/malibu-generalplan/misc/malibu-general-plan.pdf.

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———. 2021. *Malibu Equestrian Park*. Retrieved from https://www.malibucity.org/facilities/facility/details/Malibu-Equestrian-Park-11.

SMMUSD and City of Malibu 2019. Amendment No. 2 to Master Use Agreement Between the City of Malibu and Santa Monica-Malibu Unified School District Regarding Joint Use of School District Facilities. https://www.malibucity.org/AgendaCenter/ViewFile/Item/3782?fileID=8476.

5. Environmental Analysis
RECREATION

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5.14 TRANSPORTATION

This section of the Draft Environmental Impact Report (DEIR) evaluates the Malibu Middle and High School Campus Specific Plan Project's (Proposed Project's) potential impacts on transportation and traffic.

The analysis in this section is based in part on the following technical report(s):

- *Malibu Middle and High School Campus Specific Plan Transportation Impact Analysis*, Kittelson & Associates, Inc., August 2021

A complete copy of this technical report is provided in Appendix M of this DEIR.

In response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project, 17 comment letters from the California Department of Transportation (Caltrans) and individual residents were received regarding the Proposed Project's potential impacts to vehicle miles traveled (VMT), pedestrian safety, and potential conflicts with proposed parking lots, which are evaluated in this section. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.14.1 Environmental Setting

5.14.1.1 REGULATORY BACKGROUND

State, regional, and local laws, regulations, plans, or guidelines related to transportation that are applicable to the Proposed Project are summarized in this section.

State

Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The legislature found that with the adoption of SB 375, the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce VMT and thereby contribute to the reduction of greenhouse gas (GHG) emissions, as required by Assembly Bill (AB) 32. Additionally, AB 1358, described subsequently, requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users.

SB 743 started a process that fundamentally changes transportation impact analysis as part of California Environmental Quality Act (CEQA) compliance. These changes include the elimination of auto delay, level of service (LOS), and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts in many parts of California (if not statewide). As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (California Public Resources Code section 21099[b][1]). On January 20, 2016, the Governor's Office of Planning and Research (OPR) released proposed revisions to its CEQA Guidelines for the implementation of SB 743. OPR developed alternative metrics and thresholds based on VMT. The guidelines were certified by the Secretary of the Natural Resources Agency in December 2018, and automobile delay, as described solely by LOS of similar measures of vehicular capacity or traffic

congestion, shall not be considered a significant impact on the environment. As of July 1, 2020, lead agencies are required to consider VMT as the metric for determining transportation impacts. The guidance provided relative to VMT significance criteria is focused primarily on land use projects, such as residential, office, and retail uses. However, as noted in the updated CEQA Guidelines, agencies are directed to choose metrics that are appropriate for their jurisdiction to evaluate the potential impacts of a project in terms of VMT. The Santa Monica-Malibu Unified School District (SMMUSD or District) has not yet adopted a VMT threshold for use in determining significant transportation impacts under CEQA and are relying on the OPR's December 2018 Technical Advisory that provides recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. Specific methodology is discussed in Section 5.14.3.1.

Regional

Southern California Association of Governments

The South California Association of Governments' (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) provides a regional transportation plan for six counties in Southern California: Orange, San Bernardino, Riverside, Los Angeles, Ventura, and Imperial. The primary goal of the RTP is to increase mobility for the region. With recent legislation, this plan also encompasses sustainability as a key principle in future development. Current and recent transportation plan goals generally focus on balanced transportation and land use planning that:

- Maximize mobility and accessibility for all people and goods in the region.
- Ensure travel safety and reliability for all people and goods in the region.
- Preserve and ensure a sustainable regional transportation system.
- Maximize the productivity of our transportation system.
- Protect the environment and health of residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).
- Encourage land use and growth patterns that facilitate transit and active transportation.

On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt Connect SoCal (2020–2045 RTP/SCS), and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is a long-range visioning plan that builds on and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The 2020–2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCSs for an integrated approach in transportation and land use strategies in development of the SCAG region through horizon year 2045. It projects that the SCAG region will meet the GHG per-capita reduction targets established for the SCAG region of 8 percent by 2020 and 19 percent by 2035. Additionally, it is projected that implementation of the plan would reduce VMT per capita for year 2045 by 4.1 percent compared to baseline conditions for the year. The 2020–2045 RTP/SCS includes a "core vision" that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investments in transit and complete streets.

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

The LUP identifies the following policies related to transportation (City of Malibu 2002b):

Chapter 2 Public Access and Recreation

Section 30212.5

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

- **LUP Policy 2.25:** New development shall provide off-street parking sufficient to serve the approved use in order to minimize impacts to public street parking available for coastal access and recreation.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 4. Circulation and Infrastructure Element

The City of Malibu General Plan's Circulation and Infrastructure Element addresses the circulation of people, goods, energy, water, sewage, and communications. The purpose of the Circulation and Infrastructure Element is to present a plan for ensuring that public transportation, services, and utilities are constantly available to permit orderly growth and to promote public health, safety, and welfare. The Circulation and Infrastructure Element sets forth policies and standards for the rational and cost-efficient provision and extension of public services to support planned development and protect natural resources. It addresses present conditions and concerns and sets measures for improvement. It is structured to accommodate future growth and development patterns. The following goal and policies in the Circulation and Infrastructure Element are relevant to the Proposed Project:

C Goal 1: Safe, environmentally sensitive and efficient transportation for the city.

- **C Objective 1.1**: Safe, efficient and convenient traffic system with a minimum of impact or cost.
  - **C Policy 1.1.1**: Where level of service at signalized intersections and roadways is below LOS C, the City shall ensure that proposed development maintains the then current LOS. Where LOS at signalized intersections and roadways is at LOS C or above, the City shall ensure that proposed development (1) does not cause a degradation of LOS greater than or equal to two percent in the circumstances set forth in Land Use Implementation Measure 70 and (2) does not degrade LOS below LOS C.
  - **C Policy 1.1.2**: The City shall utilize sound traffic engineering and enforcement principles to safely regulate traffic and improve traffic flow.
  - **C Policy 1.1.3**: The City shall improve traffic flow through procedural improvements.
  - **C Policy 1.1.4**: The City shall reduce peak time traffic.

To implement this policy the City shall:

- **C Implementation Measure 1**: Implement the provisions of the Los Angeles County Congestion Management Program by requiring development projects to analyze and provide appropriate mitigation for traffic impacts on regional circulation facilities.
- **C Implementation Measure 2**: Utilize appropriate operational and physical improvements such as metering, signal synchronization, pedestrian overpasses, re-signalization, provision of acceleration/deceleration lanes, and improvement of existing and creation of new left turn lanes.
- **C Implementation Measure 3**: Cooperate with Caltrans, the Counties of Los Angeles and Ventura, the City of Los Angeles, and neighboring cities along the Ventura Freeway to improve the flow of traffic in surrounding areas which impact Malibu traffic.
- **C Implementation Measure 4**: Ensure that proposed development mitigate traffic impacts by building or financing infrastructure improvements necessary to serve the development and by considering adoption of a traffic impact fee.
- **C Implementation Measure 12**: Strictly enforce speed limits on highways and roads within the City.

- **C Objective 1.2:** An effective transportation system that is multi-modal.
  - **C Policy 1.2.4**: The City shall develop bikeways, pedestrian walkways, and equestrian paths in areas that can safely accommodate them.

To implement these policies the City shall:

- **C Implementation Measure 24**: Implement a bikeway and pedestrian walkway plan designed to improve visitor and resident circulation.

- **C Objective 1.3**: Adequate off-street parking.

- **C Policy 1.3.1**: The City shall require sufficient off-street parking.
- **C Policy 1.3.2**: The City shall develop alternate parking opportunities for recreational uses to minimize disruption of residential neighborhoods, and to reduce air pollution.

To implement these policies the City shall:

- **C Implementation Measure 25**: Require proposed development to provide adequate off-street parking including shared beach parking if appropriate.

C Goal 3: Schools and educational facilities to serve the educational needs and to ensure the cultural vitality of the city.

- **C Objective 3.1**: Public schools that are physically and functionally integrated with their surrounding neighborhoods or service areas.
  - **C Policy 3.1.1**: The City shall encourage location of future school sites which are physically and functionally integrated with their surrounding neighborhoods and community.
  - **C Policy 3.1.2**: The City shall coordinate with the Santa Monica-Malibu Unified School District to share facilities and programs.

  To implement this policy the City shall:

  - **C Implementation Measure 40**: Work with the school and community college districts to coordinate school facility planning and site acquisition.
  - **C Implementation Measure 41**: Initiate cooperative agreements with SMMUSD to share facilities and implement educational and recreational programs.

5.14.1.2 EXISTING CONDITIONS

Existing Road Network

Pacific Coast Highway

Pacific Coast Highway (PCH or State Route 1) is a major north to south state highway that runs along most of California's Pacific coastline. PCH is located southwest of the Project Site and travels southeast to northwest. PCH is a four-lane roadway with intermittent on-street parking, Class II bike facilities, and left-turn lane pockets to access Morning View Drive and Guernsey Avenue. PCH provides access between the city of Santa Monica and the city of Oxnard and is a designated route in the congestion management program (CMP). The posted speed limit on PCH, near the Project Site, is 50 miles per hour (mph).

Morning View Drive

Morning View Drive is a two-lane, predominantly east to west local roadway that runs from a signalized intersection at PCH to the south and runs northwest to a stop-controlled intersection at Guernsey Avenue. The

road has a rural cross-section and open channel drainage, with significant changes in horizontal and vertical curvature. Morning View Drive provides access to homes and local and private roads, as well as direct access to the Malibu Middle and High School (MMHS) campus via five driveways. The driveways provide access to four off-street parking areas and the main roadway that provides access to the rear area of the school. The posted speed limit is 30 and 25 mph in the school zone. On-street parking is available on the south side of the street in front of the Project Site. On the north side of the street, green curbs indicate short-term parking zones for student drop-off and pick-up.

Merritt Drive

Merritt Drive is a north to south local roadway that connects Morning View Drive in the south to Busch Drive to the north. It is a two-lane roadway with a rural cross-section and open channel drainage. It provides access to single-family residences and the Malibu Equestrian Park. It has a posted speed limit of 30 mph. Merritt Drive eventually merges with Busch Drive just south of Harvester Road.

Philip Avenue

Philip Avenue is a two-lane, predominantly east to west local roadway that connects to Morning View Drive to the south and provides access to single-family homes to the north. East of Sea View Drive, Philip Avenue becomes Harvester Road.

Guernsey Avenue

Guernsey Avenue is a two-lane, east to west local roadway that connects to Morning View Drive to the north and PCH to the south.

Clover Heights Avenue

Clover Heights Avenue is a north to south local roadway that connects to Harvester Road in the north and provides access to the baseball fields on the north side of the Project Site.

Existing Pedestrian Facilities

Sidewalks are present on both sides of Morning View Drive from PCH to the western school boundary. The sidewalks in front of MMHS campus on the north side of Morning View Drive are paved. Sidewalks along the south side of Morning View Drive in front of MMHS and on both sides of Morning View Drive past the school boundaries are unpaved. Sidewalks on Morning View Drive west of the school's western limits are not continuous: they exist mostly along the north side or the road and consist of unpaved sidewalks. Guernsey Avenue features a sidewalk halfway between PCH and Morning View Drive on the south side. In front of MMHS on Morning View Drive, four yellow ladder-striped crosswalks provide access from the south side of the street to campus. Two crossing guards staff the eastern crosswalks on Morning View Drive in front of the school during the morning drop-off and afternoon pick-up peak periods.

Existing Bicycle Facilities

Bicycle facilities are defined by the following three classes in Chapter 1000 of Caltrans' Highway Design Manual:

- **Class I:** Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.
- **Class II:** Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted.
- **Class III:** Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.

Class II bicycle lanes are present along both sides of PCH, which is a designated bike route. Bike facilities are currently not present on any other roadways near the Project Site.

Existing Transit Service

Through SMMUSD, MMHS students are provided bus passes for the Los Angeles County Metropolitan Transportation Authority (LA County Metro) transit system, which includes the following bus service near the Project Site:

- **Line 534** is a Transbay service between Downtown Santa Monica and the Trancas Country Market. It stops at Third Street Promenade, the Getty Villa, and Pepperdine University. This line operates from 5 a.m. to 10 p.m. on weekdays at approximately 20-minute headways during peak hour. Weekend service is shorter and less frequent. The bus stops within a quarter-mile south of the Project Site on PCH.

Existing Parking

There are currently two main points of vehicular entry into the Project Site. The first entry is along the eastern edge of the campus from Morning View Drive, and the second point of entry is at the access road between the former Juan Cabrillo Elementary School (JCES) campus and the MMHS campus. This entry is a service access point and provides access to the bus barn, maintenance and operations warehouse, and Student Parking Lot A.

MMHS has several parking lots for guests, students, and staff, as well as community parking for non-campus events (i.e., Boys and Girls Club, pool, athletic fields). Students need a parking permit to park on campus during school hours. As shown in Figure 5.14-1, *Existing Parking Lots, Access, and Student Drop-Off,* the MMHS and JCES campuses currently have 5 parking lots with a total of 375 spaces (see Table 5.14-1, *Existing and Proposed Parking Lots).*

Table 5.14-1 Existing and Proposed Parking Lots

Existing Parking Lot	Existing Spaces	Proposed Parking Lot	Proposed Spaces
150-Space Parking Lot (E)	150	Renamed Parking Lot A	150
Lower Parking Lot (D)	62	Renamed Parking Lot B	62
Student Parking Lot A	119	Removed	
JCES Parking Lots	37	Removed	

Table 5.14-1 Existing and Proposed Parking Lots

Existing Parking Lot	Existing Spaces	Proposed Parking Lot	Proposed Spaces
Service Lot	7	Removed	
		Parking Lot C (New)	25
		Parking Lot D (New)	129
		Parking Lot E (New)	32
		Parking Lot F (New)	14
Total	**375**	**Total**	**412**

Source: SMMUSD 2021.
Note: 11 spaces within the Bus Barn will also be removed as part of the Specific Plan.

No parking is allowed on the north side of Morning View Drive in the segment adjacent to the school. The curb is painted green with "tow-away" signs in this roadway segment. A sign indicates that no parking is allowed on the north side of Morning View Drive from 7:00 a.m. to 8:30 a.m. Monday to Friday, 1:30 p.m. to 3:30 p.m. Monday to Thursday, and 12:00 p.m. to 1:30 p.m. on Fridays when school is in session.

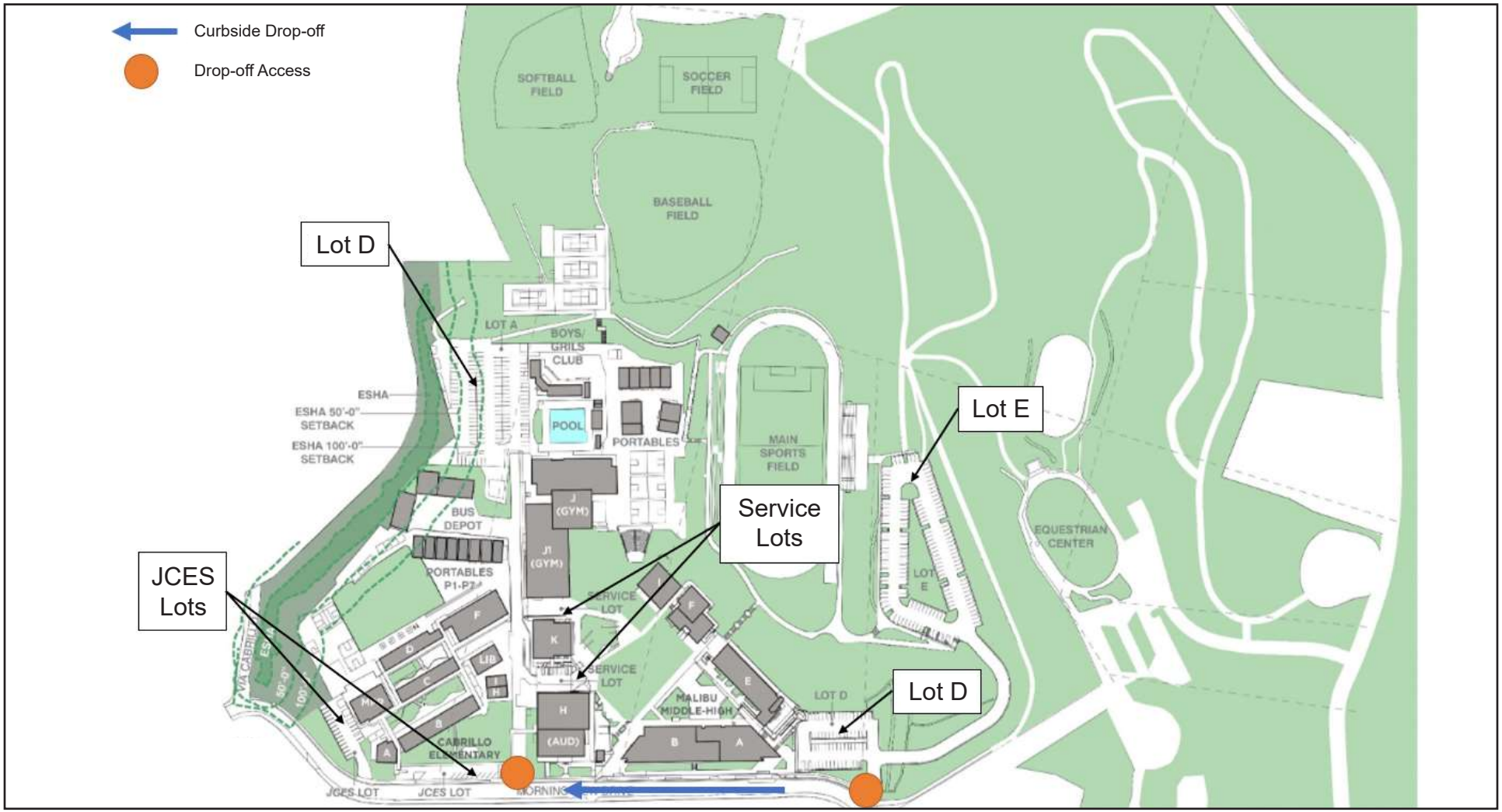
Student Drop-off/Pick-Up

The following describes student drop-off during the 2020-2021 school year, which represent baseline conditions. Student drop-off and pick-up for the middle school currently occur in Parking Lot E, a 150-space lot, while drop-off and pick-up for the high school primarily occur in the JCES parking lot. Curbside student drop-off and pick-up also occur on the northern side of Morning View Drive.

The school is served by three buses that normally transport 150 to 200 students per day. The bus drop-off area is located at the upper Parking Lot E. After bus drop off, the three buses return to the existing bus barn located near Parking Lot D.

Parking lot assignments and student and bus drop-off and pick-up have recently changed for the 2021-2022 school calendar. The drop-off on Morning View Drive has been assigned in the morning for bus drop-off, this area is used for student pick-up in the afternoon. In the afternoon, the buses use the lower Parking Lot D. The pool lot accessed via Morning View Drive just east of the former JCES campus is used for drop-off and pick-up for autos for High School students is used for high school student pick-up and drop-off. The majority of field users access the fields from parking lots and driveways via Morning View Drive.

Figure 5.14-1 Existing Parking Lots, Access, and Student Drop-Off



Source: Kittelson & Associates, Inc., 2021

5. Environmental Analysis
TRANSPORTATION

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Existing Traffic Conditions

Existing traffic volumes for intersections and roadway segments are used to establish a basis for analysis in this study. Peak-hour turning movement count data were collected on Thursday, June 3, 2021, from 7 a.m. to 9 a.m. and from 1 p.m. to 6 p.m. Twenty-four-hour counts were also collected on roadway segments. Because the school was currently in session during this time with approximately 500 students attending in person, adjustments to traffic counts taken in the spring of 2021 were made to represent typical traffic conditions with all enrolled students attending in person. Enrollment at MHHS exceeded 1,200 students up until 2008 and declined in recent years, with only 939 students enrolled during the 2018-19 school year (337 middle school students and 602 high school students). For the purposes of this analysis, the traffic counts were adjusted to reflect a student in-person enrollment of 1,000 students. This resulted in approximately 2,482 trips per day, including 651 trips during the morning peak hours, and 404 trips during student dismissal.

Level of Service

Though not used for the determination of CEQA impacts, LOS is still used by the City of Malibu to describe the operating conditions experienced by motorists and is often used to determine whether circulation improvements are necessary as a condition of approval for a proposed project. LOS describes the operating conditions experienced by users of a facility. LOS is a qualitative measure of the effect of several factors, including speed, travel time, traffic interruptions, freedom to maneuver, driving comfort, and convenience. LOS are designated A through F from best to worst, which cover the entire range of traffic operations that might occur. LOS A through E generally represent traffic volumes at less than roadway capacity, while LOS F represents over capacity or forced flow conditions (see Table 5.14-2, *Intersection Level of Service Definitions*). In general, LOS D or better is considered acceptable, while LOS E and LOS F are not.

Table 5.14-2 Intersection Level of Service Definitions

LOS	Description of Traffic Conditions	Average Delay Per Vehicle (Seconds)	
		Signalized	Unsignalized
A	**Free-flow operation:** Vehicles are completely unimpeded in their ability to maneuver within the traffic stream.	≤10.0	≤10.0
B	**Reasonable unimpeded operation:** The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the boundary intersections is not significant.	>10.0 and ≤20.0	>10.0 and ≤15.0
C	**Stable operation:** The ability to maneuver and change lanes at midsegment locations may be more restricted than at LOS B.	>20.0 and ≤35.0	>15.0 and ≤25.0
D	**Less stable condition** in which small increases in flow may cause substantial increases in delay and decreases in travel speeds.	>35.0 and ≤55.0	>25.0 and ≤35.0
E	**Unstable operation and significant delay:** Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections.	>55.0 and ≤80.0	>35.0 and ≤50.0
F	**Flow at extremely low speed:** Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing.	>80.0	>50.0

Source: Kittelson & Associates, 2021

Existing Level of Services

Existing Intersection LOS

The peak hours selected for analysis are the highest volumes in four consecutive 15-minute periods in the morning hours from 7:00 a.m. to 9:00 a.m. (known as the AM Peak) and during the mid-afternoon student dismissal period from 2:00 p.m. to 4:00 p.m. on weekdays (known as the PM Peak). Based on counts collected in June 2021, two intersections near the Project Site, including Guernsey Avenue/PCH and Morning View Drive/Merritt Drive, currently operate worse than LOS D (see Table 5.14-3, *Existing Conditions Intersection Operations*). The degraded LOS at Morning View Drive and Merritt Drive is due to the delays at the westbound approach at Merritt Drive, as north-south traffic on Morning View Drive does not stop.

Table 5.14-3 Existing Conditions Intersection Operations

No.	Location	Control[1]	Peak Hour	Existing	
				Delay[2]	LOS[3]
1	Morning View Drive & PCH	Signal	AM	52.3	D
			PM	41.3	D
2	Morning View Drive & Merritt Drive	SSSC	AM	29.7	D
			PM	41.5	E
3	Morning View Drive & Ebbtide Way	None	AM	11.5	B
			PM	12.0	B
4	Guernsey Avenue & PCH	SSSC	AM	78.6	F
			PM	411.3	F
5	Clover Heights Avenue and Harvester Road	SSSC	AM	8.5	A
			PM	8.8	A

Source: Kittelson & Associates, 2021
Notes: SSSC = Side-Street Stop Control
Average delay in seconds is presented for signalized and all-way stop-controlled intersections. Worst approach average delay shown for side-street stop-controlled intersections.

Existing Roadway Segment LOS

Roadway segment traffic was evaluated at the following five locations:

1. Morning View Drive between Merritt Drive and school campus.
2. Morning View Drive between school campus and Via Cabrillo.
3. Merritt Drive between Morning View Drive and Baden Place.
4. Harvester Road between Clover Heights Avenue and Busch Drive.
5. Clover Heights Drive south of Harvester Road.

Recent 24-hour traffic counts were collected on the street segments in June 2021, in conjunction with the intersection counts, to determine the amount of existing traffic currently using the roadways. The traffic volume on the street segments was adjusted using the same procedures as the study intersections (i.e., based on in-

person student attendance vs. typical enrollment). As shown in Table 5.14-4*, Roadway Segment Operations, Existing Conditions*, the capacity for a two-lane stop-controlled urban street is 7,400 for a minor arterial and 10,900 for an urban principal arterial, according to the National Cooperative Highway Research Program (NCHRP) *Report 825: Planning and Preliminary Engineering Applications Guide to the Highway Capacity Manual*. Given the low traffic volumes in the study area, all roadways in the vicinity of the school operate at acceptable LOS A.

Table 5.14-4 Roadway Segment Operations, Existing Conditions

Roadway	Segment	Lanes	2021 ADT	V/C	LOS
Morning View Drive	East of Merritt Drive	2U	5,006	0.68	B
Morning View Drive	West of campus	2U	1,486	0.20	A
Clover Heights Avenue	South of Harvester Road	2U	192	0.04	A
Harvester Road	East of Clover Heights	2U	1,120	0.11	A
Merritt Drive	South of Morning View Drive	2U	792	0.17	A

Source: Kittelson & Associates, 2021
Notes: U = undivided roadway D = divided roadway

Vehicle Miles Traveled

OPR has updated the CEQA Guidelines and provided a final technical advisory in December 2018, which recommends VMT as the most appropriate measure of transportation impacts under CEQA.

Existing Vehicle Miles Traveled

The total daily VMT for the school can be calculated based on the sum of VMT for all users—students, staff, and others (visitors, vendors, maintenance, etc.). The total VMT from the school has been calculated based on the number of daily trips from staff, students, and others multiplied by the average trip distance for each category. The numbers of trips from students, staff, and others are derived from the ITE trip generation. The average trip length for students was calculated based on the school attendance boundaries, and the average trip length for staff and others is based on average trip length data in the SCAG travel demand model. Student VMT was calculated using ITE trip generation rates and data from the SCAG model. The total trip generation for the school for an enrollment of 1,000 students is 10,280 miles.

5.14.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a Project would normally have a significant effect on the environment if the Project would:

T-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

T-2 Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).

T-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

The IS/NOP, included as Appendix B to this DEIR, substantiates that impacts associated with the following thresholds would be less than significant; therefore, this impact will not be further addressed in this DEIR:

- Threshold T-4

The topic of emergency access is addressed in Section 5.8, *Hazards and Hazardous Materials,* and Section 5.12, *Public Services*.

5.14.3 Environmental Impacts

5.14.3.1 METHODOLOGY

According to the City's *Traffic Memorandum and Traffic Impact Analysis Guidelines* (City of Malibu 2019), the traffic analysis must include any intersection or roadway segment, regardless of jurisdictional boundaries, to which at least 15 peak-hour project trips or 100 daily trips would be added. Projects only satisfying the minimum trip threshold (30 peak-hour and/or 300 daily trips) but with fewer than 15 peak-hour or 100 daily project trips to any single off-site facility, will normally only require analysis of the intersection(s) or roadway segment(s) adjacent to the project site. In addition, the transportation analysis shall evaluate the intersections/driveways proposed to provide access to the project site. However, this project is not increasing the capacity of the school. The Project includes new building construction, reconfiguration and modernization of existing buildings, and new parking and vehicular circulation areas within the existing footprint of the existing school. The attendance boundary of the school is not changing, and the campus will continue to have access via Morning View Drive. Therefore, trip distances and traffic patterns would not change as a result of Project implementation. Under no project and with project conditions, traffic volumes and patterns at off-site intersections and roadway segments would not change during school hours. To inform the public and decision makers on the future traffic conditions in conjunction with cumulative projects, the transportation analysis reviews future traffic conditions at study intersections and roadways during student drop-off and pick-up times at nearby intersections under Phase 1 Buildout in 2024 and Project Completion (full campus buildout) in 2031.

Additionally, the transportation impact analysis includes the following:

- VMT assessment.
- Site access and circulation associated with student drop-off/pick-up.
- Pedestrian access and facilities that will be affected by the Project access reconfiguration.
- Clover Heights access and potential for neighborhood traffic related to after-school field activities.
- Construction traffic and pedestrian and access locations that may be affected during construction.

Existing and Future Student Enrollment Considerations

The City of Malibu has a current population of approximately 10,654 compared to 12,645 in 2010, a decrease of 15.7 percent (US Census 2020). Additionally, the share of the population of Malibu under 18 years of age is 15.3 percent, which is lower than the regional share of 23.4 percent. Malibu's seniors (65 and above) make up 24.2 percent of the population, which is higher than the regional share of 13 percent. The most common household size is two people (40.4 percent), and the second most common is one person (33.2 percent). Malibu

has a higher share of single-person households than the SCAG region overall (33.2 percent vs. 23.4 percent) and a lower share of 7+ person households than the SCAG region overall (0.6 percent vs. 3.1 percent) (Malibu HE 2021). Before the Woolsey Fire, the City averaged 1.5 residential building permits per 1,000 residents, and only four such permits were issued in 2018 (SCAG 2019). Therefore, Malibu has fewer school-age children than a similarly populated district.

Consistent with the City's population decrease, enrollment at the campus has been steadily decreasing since 2006 from a high of approximately 1,576 (281 students at JCES and 1,295 at MMHS) to 1,142 (197 at JCES and 945 at MMHS) in 2018-2019. Enrollment since 2015 to 2020 at the campus has decreased by 15 percent. In the 2019-2020 school year after the closure of JCES, the student population at MMHS was 862, and in the current 2020-2021 school year, enrollment further declined to 784 students (refer to Table B-1 in Appendix B).

Moreover, enrollment is not projected to increase because lower (feeder) grades have been tracking below historical levels, indicating a decrease in future enrollment at middle and high school grades. Enrollment levels are expected to decrease over the coming decade, with a projected enrollment of 533 in 2025 (DecisionInsite 2021). Based on enrollment projections by Decision Insite LLC, the District anticipates a total enrollment of approximately 150 middle school students and 225 high school students, for a total of 375 students by 2030, which would be a 12 percent reduction in student population compared to 2017 (Decision Insight 2021).

The existing MMHS campus has the capacity to seat approximately 1,200 students, as evidenced by the 2006 enrollment, but no longer meets the District's educational requirements due to the building's age and overall condition. The Proposed Project would not increase the capacity of the MMHS campus but would be designed to support the regrowth of the community from the Woolsey Fire.

For the transportation analysis, a baseline level of enrollment needed to be determined. Using historical data, the highest vehicle trips would have occurred during the 2006 school year, when approximately 1,500 students attended both JCES and MMHS. With the closure of JCES, a 1,500-student enrollment would not be a realistic baseline. Therefore, a baseline of 1,200 students was considered, again based on maximum enrollment at MMHS reached in 2006. However, as shown in Table B-1 in Appendix B, the overall enrollment of the school has been declining for more than a decade. As the community recovers from the Woolsey Fire, the redevelopment proposed by the Project could potentially serve a student population of up to 1,200 students, which is consistent with the existing capacity. However, reaching this maximum capacity is not considered likely for the foreseeable future, as evidenced by the DecisionInsite data. Therefore, for the purposes of this analysis, the traffic counts have been adjusted to reflect an in-person student enrollment of 1,000 students. This number is considered conservative based on past enrollment trends and current enrollment projections, and therefore is a reasonable capacity number for purposes of the transportation analysis.

The manual adjustments of 1,000 students consisted of identifying the turn movement volumes at the study intersections associated with school traffic during the peak hours and applying an adjustment factor to represent typical school traffic conditions. For example, at the intersection of Morning View Drive at Merritt Drive, the northbound and southbound through volumes were multiplied by a factor of 2. This factor was conservatively chosen—assuming that all traffic was associated with the school when counts were taken, it adjusts from the existing in-person attendance of 500 compared to typical attendance of 1,000 students. Other movements not

associated with school traffic were not adjusted, such as northbound through and southbound through traffic at the intersection of PCH at Morning View Drive. It should be noted that pre-COVID-19 volumes on PCH from the Caltrans Traffic Census database were compared to the 2021 counts to ensure that counts were reasonable.

5.14.3.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.14-1: The Proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. [Threshold T-1]

Consistency with SCAG RTP/SCS

The Proposed Project would result in the modernization and redevelopment of the existing campus. It would not result in an increase in student capacity or staffing levels in the school and would therefore not result in an increase of vehicle trips following Proposed Project buildout. Construction and operation of the Proposed Project would not prohibit or interfere with the RTP/SCS GHG per-capita reduction targets of 8 percent by 2020 and 19 percent by 2035, or the associated reduction in VMT per capita for year 2045 by 4.1 percent compared to baseline conditions for the year. Since the Proposed Project would operate in the same capacity as existing conditions, it would not conflict with the 2020-2045 RTP/SCS "core vision" regarding maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investments in transit and complete streets. Therefore, the Proposed Project would be consistent with the SCAG RTP/SCS.

Consistency with City of Malibu Circulation and Infrastructure Element

Construction

The Project Site generates approximately 2,482 trips per day, including 651 trips during the morning peak hours, and 405 trips during student dismissal. During construction of the Proposed Project, the peak volume of construction traffic is anticipated to be approximately 299 trips per day during the rough grading phase of construction, adding approximately 38 trips per hour, over a typical eight-hour workday. However, construction of the Proposed Project would result in less than 299 trips per day and would be substantially lower than trips generated from school-related traffic during student drop-off and pick-up. Trips from construction workers and haul trucks would not overlap with student pick-up and drop-off and would occur outside the school peak hours. The potential 38 hauling trips and 60 worker trips related to construction would have a negligible effect on traffic conditions in the Project Area and would not change or worsen LOS.

Construction of the Proposed Project would maintain access to the existing Parking Lots A and B for student drop-off and pick-up during Phase 1; however, since the existing JCES parking lot would be demolished, vehicles that use the curbside drop-off area on Morning View Drive adjacent to the school campus would not be able to make a U-turn to head south on Morning View Drive, and drop-off on Morning View Drive would

not be allowed. To help facilitate traffic flow, alternate routes would be provided throughout the area surrounding the Project Site for vehicles who are dropping off and picking up students. During Phases 2 through 4, the majority of construction traffic during the peak hours would consist of construction workers and vendors traveling to and from the Project Site. Similar to the construction of Phase 1, trips by construction workers and haul trucks would not overlap with student pick-up and drop-off, and would primarily occur outside the school peak hours, with a limited number of trips during the AM peak hours. The District would work with the City of Malibu's Public Works Department to develop and implement a Construction Traffic Mitigation Plan, which would help reduce any influence of construction activities and ensure that public access to and from the Project Site is maintained during construction of the Proposed Project. The Construction Traffic Mitigation Plan would include phase-specific circulation patterns and volume estimates to identify potential temporary modifications to the roadway or construction operations. Therefore, the construction of the Proposed Project would be consistent with Objective 1.1 (in particular Policy 1.1.2) of the Circulation and Infrastructure Element.

Operation

Phase 1 (2024) Conditions

The intersections at Morning View Drive and PCH, AM Peak; Morning View Drive and Merritt Drive; and Guernsey Avenue and PCH all currently operate at an unacceptable LOS (see Table 5.14-5, *Phase 1, Existing and 2024 Intersection Operations*), which would be expected to continue with (or without) the implementation of Phase 1 of the Proposed Project. The Proposed Project would not increase student or staff population at MMHS and would not generate additional trips to and from the Project Site; thus, the Proposed Project would not change or worsen the LOS of the intersections. Additionally, as shown in Table 5.14-6, *Roadway Segment Operations, Existing and 2024 Conditions*, under the 2024 conditions, the capacity for a two-lane undivided road would be approximately 13,400 ADT; thus, given the low traffic volumes in the Project Area, all roadways in the vicinity of the school would continue to operate at acceptable LOS A. Additionally, as shown in Table 5.14-7, *Existing and Phase 1 2024 Queuing*, the 95th percentile queue would continue to exceed the storage capacity on the southbound left movement by five feet in the AM peak hour. However, this is an uncommon occurrence because the average queues will not exceed the storage length. The storage capacity would not be exceeded in the PM peak hour. Similar to existing conditions, on the westbound approach of Morning View Drive to PCH, the 95th percentile queue is anticipated to reach the intersection of Morning View Drive and Merritt Drive. However, this is an uncommon occurrence because the average queue length will not reach Merritt Drive. The school would not add traffic or modify traffic patterns, so the Proposed Project would not worsen the queues identified. Therefore, operation of Phase 1 would be consistent with Objective 1.1 (in particular Policy 1.1.1) of the Circulation and Infrastructure Element.

Table 5.14-5 Phase 1 Intersection Operations, Existing and 2024 Conditions

No.	Location	Control	Peak Hour	Existing 2021		Phase 1 2024	
				Delay (seconds)	LOS	Delay (seconds)	LOS
1	Morning View Drive & PCH	Signal	AM	52.3	D	55.2	E
			PM	41.3	D	44.1	D
2	Morning View Drive & Merritt	SSSC	AM	29.7	D	30.6	D

Table 5.14-5 Phase 1 Intersection Operations, Existing and 2024 Conditions

No.	Location	Control	Peak Hour	Existing 2021		Phase 1 2024	
				Delay (seconds)	LOS	Delay (seconds)	LOS
			PM	41.5	E	42.6	E
3	Morning View Drive & Ebbtide Way	None	AM	11.5	B	11.6	B
			PM	12.0	B	12.1	B
4	Guernsey Ave & PCH	SSSC	AM	78.6	F	91.9	F
			PM	411.3	F	452.2	F
5	Clover Heights & Harvester Road	SSSC	AM	8.5	A	8.5	A
			PM	8.5	A	8.8	A

Source: Kittelson & Associates 2021.
Notes: SSSC = Side-Street Stop Control
Average delay in seconds is presented for signalized and all-way stop-controlled intersections. Worst approach average delay shown for side-street stop-controlled intersections.

Table 5.14-6 Roadway Segment Operations, Existing and 2024 Conditions

Roadway	Segment	Lanes	Existing 2021			Phase 1 2024		
			2021 ADT	V/C	LOS	2024 ADT	V/C	LOS
Morning View Drive	East of Merritt Drive	2U	5,006	0.68	B	5,803	0.69	B
Morning View Drive	West of campus	2U	1,486	0.20	A	5,081	0.20	A
Clover Heights Avenue	South of Harvester Road	2U	192	0.04	A	195	0.04	A
Harvester Road	East of Clover Heights	2U	1,120	0.11	A	1,508	0.11	A
Merritt Drive	South of Morning View Drive	2U	792	0.17	A	804	0.17	A

Source: Kittelson & Associates 2021.
Notes: U = undivided D = divided

Table 5.14-7 Existing and Phase 1 2024 Queuing

Intersection	Movement		Storage	Existing 2021				Phase 1 2024 Queuing			
				95th Percentile Queues				95th Percentile Queues			
				AM Queue (ft.)	Exceed Storage	PM Queue (ft.)	Exceed Storage	AM Queue (ft.)	Exceed Storage	PM Queue (ft.)	Exceed Storage
PCH & Morning View Drive	NB	Right	130	18		45		17		47	
	SB	Left	115	120	Yes	79		120	Yes	80	
	WB	Left	-	176	Yes	441	Yes	179	Yes[1]	450	Yes
		Right	-	15		17		15	Yes[1]	17	
Merritt Drive & Morning View Drive	EB	Left/Right	-	0		0		0		0	
	WB	Left/Right	-	21		271		24		280	Yes[1]
PCH & Guernsey Avenue	SB	Left	100	15		10		18		10	
	WB	Left/Right	-	165		525		183		553	

Source: Kittelson & Associates 2021.
1. Queue spills over to Merritt Drive & Morning View Drive.

Complete Buildout (2031) Conditions

Similar to Phase 1 (2024) conditions, the intersections at Morning View Drive and PCH, AM Peak; Morning View Drive and Merritt Drive; and Guernsey Avenue and PCH all currently operate at an unacceptable LOS (see Table 5.14-8, *Complete Buildout Intersection Operations*), which would be expected to continue with (or without) complete buildout of the Proposed Project. Complete buildout of the Proposed Project would not increase student or staff population in MMHS, and the Proposed Project would not be adding trips to and from the Project Site; thus, the Proposed Project would not change or worsen the LOS of the intersections. Additionally, as shown in Table 5.14-9, *Roadway Segment Operations, Complete Buildout Conditions*, under the 2031 conditions, the capacity for a two-lane undivided road would be approximately 13,400 ADT; given the low traffic volumes in the Project Area, all roadways in the vicinity of the school would continue to operate at acceptable LOS A. As shown in Table 5.14-10, *Existing and Complete Buildout Queuing*, the 95th percentile queue would continue to exceed the storage capacity on the southbound left movement by five feet in the AM peak hour. However, this is an uncommon occurrence because the average queues would not exceed the storage length. The storage capacity would not be exceeded in the PM peak hour. Similar to existing conditions, on the westbound approach of Morning View Drive to PCH, the 95th percentile queue is anticipated to reach the intersection of Morning View Drive at Merritt Drive. However, this would be an uncommon occurrence because the average queue length would not reach Merritt Drive. The school would not add traffic or modify traffic patterns, so the Proposed Project would not worsen the queues identified. Therefore, complete buildout of the Proposed Project would not conflict with Objective 1.1 (in particular Policy 1.1.1) of the Circulation and Infrastructure Element.

Table 5.14-8 Complete Buildout Intersection Operations

No.	Location	Control	Peak Hour	Existing 2021		Complete Buildout 2031	
				Delay (seconds)	LOS	Delay (seconds)	LOS
1	Morning View Drive & PCH	Signal	AM	52.3	D	62.7	E
			PM	41.3	D	51.7	D
2	Morning View Drive & Merritt Drive	SSSC	AM	29.7	D	33.3	D
			PM	41.5	E	49.6	E
3	Morning View Drive & Ebbtide Way	None	AM	11.5	B	11.8	B
			PM	12.0	B	12.3	B
4	Guernsey Avenue & PCH	SSSC	AM	78.6	F	120.9	F
			PM	411.3	F	572.1	F
5	Clover Heights Avenue & Harvester Road	SSSC	AM	8.5	A	8.5	A
			PM	8.5	A	8.8	A

Source: Kittelson & Associates 2021
SSSC = Side-Street Stop Control
Average delay in seconds is presented for signalized and all-way stop-controlled intersections. Worst approach average delay shown for side-street stop-controlled intersections.

Table 5.14-9 Roadway Segment Operations, Complete Buildout Conditions

Roadway	Segment	Lanes	Existing 2021			Complete Buildout 2031		
			2021 ADT	V/C	LOS	2031 ADT	V/C	LOS
Morning View Drive	East of Merritt Drive	2U	5,006	0.68	B	6,009	0.71	C
Morning View Drive	West of campus	2U	1,486	0.20	A	5,262	0.21	A
Clover Heights Avenue	South of Harvester Road	2U	192	0.04	A	202	0.04	A
Harvester Road	East of Clover Heights	2U	1,120	0.11	A	1,562	0.12	A
Merritt Drive	South of Morning View Drive	2U	792	0.17	A	833	0.17	A

Source: Kittelson & Associates 2021.
Notes: U = undivided D = divided

Table 5.14-10 Existing and Complete Buildout Queuing

Intersection	Movement		Storage	Existing 2021				Complete Buildout 2031			
				95th Percentile Queues				95th Percentile Queues			
				AM Queue (ft.)	Exceed Storage	PM Queue (ft.)	Exceed Storage	AM Queue (ft.)	Exceed Storage	PM Queue (ft.)	Exceed Storage
PCH & Morning View Drive	NB	Right	130	18		45		17		52	
	SB	Left	115	120	Yes	79		126	Yes	83	
	WB	Left	-	176	Yes	441	Yes	186	Yes[1]	470	Yes
		Right	-	15		17		16	Yes[1]	17	
Merritt Drive & Morning View Drive	EB	Left/Right	-	0		0		0		0	
	WB	Left/Right	-	21		271		32		300	Yes[1]
PCH & Guernsey Avenue	SB	Left	100	15		10		18		13	
	WB	Left/Right	-	165		525		215		623	Yes

Source: Kittelson & Associates 2021.
1. Queue spills over to Merritt Drive & Morning View Drive.

As described previously, buildout of the four phases of the Proposed Project would not result in overall operational changes related to an increase in student enrollment or staffing. Regarding Goal 1, the Proposed Project would not degrade LOS conditions to unacceptable levels.

In addition, the Proposed Project would not modify site access locations and traffic patterns in the surrounding area that would potentially result in an increase in the average trip lengths. The Proposed Project would expand the existing trail network in the area for public access and thereby increase multimodal use of the area and therefore would be consistent with Objective 1.2 regarding multimodal circulation.

Regarding parking in Objective 1.3, the Proposed Project would provide sufficient parking within the existing campus and no off-site/street parking would be needed or proposed. As overall capacity and staffing levels

would not increase, no change in parking demand from operation and buildout would occur. Therefore, the Proposed Project would not conflict with Objective 1.3 of the Circulation and Infrastructure Element.

Regarding Goal 3, the Proposed Project would be within the limits of the existing District-owned property and school campus and therefore continue to be integrated into the surrounding community. The Proposed Project includes a new Parking Lot F in the northern part of the campus, accessible from Clover Heights Road, that would provide needed access on a limited basis for the community to access the existing community-use athletic fields (it would be restricted access and not used for school purposes). The proposed parking lot would include 14 parking spaces and is estimated to result in 126 new trips to Clover Heights Avenue, which would be accessed by field users primarily via Morning View Drive, Merritt Drive, Busch Drive, and Harvester Drive. As shown in Tables 5.14-11, *Roadway Segment Volumes, 2024 + Lot F Conditions*, and 5.14-12, *Roadway Segment Volumes, 2031 + Lot F Conditions*, all roads would continue to operate at acceptable LOS A and B, well below their capacity. No improvements would be required form a roadway capacity standpoint.

Table 5.14-11 Roadway Segment Volumes, 2024 + Lot F Conditions

Roadway	Segment	Lanes	Volume (ADT)	Fields Traffic	Total Traffic	Road Capacity	V/C Ratio	LOS
Morning View Drive	East of PCH	2U	5,803	126	5,929	10,900	0.54	A
Morning View Drive	East of Merritt Drive	2U	5,081	126	5,207	7,400	0.69	B
Morning View Drive	West of Ebbtide Way	2U	2,347	0	2,347	7,400	0.32	A
Morning View Drive	West of campus	2U	1,508	0	1,508	7,400	0.20	A
Clover Heights Avenue	South of Harvester Road	2U	195	126	321	4,800	0.04	A
Merritt Drive	South of Morning View Drive	2U	804	126	930	4,800	0.17	A
Pacific Coast Highway	South of Morning View Drive	4D	25,174	126	25,300	39,300	0.64	B

Source: Kittelson & Associates 2021.
Notes: U = undivided roadway D = divided roadway

Table 5.14-12 Roadway Segment Volumes, 2031 + Lot F Conditions

Roadway	Segment	Lanes	Volume (ADT)	Fields Traffic	Total Traffic	Road Capacity	V/C Ratio	LOS
Morning View Drive	East of PCH	2U	6,009	126	6,135	10,900	0.56	A
Morning View Drive	East of Merritt Drive	2U	5,262	126	5,388	7,400	0.71	C
Morning View Drive	West of Ebbtide Way	2U	2,430	0	2,430	7,400	0.33	A
Morning View Drive	West of campus	2U	1,562	0	1,562	7,400	0.21	A
Clover Heights Avenue	South of Harvester Road	2U	202	126	328	4,800	0.04	A
Merritt Drive	South of Morning View Drive	2U	833	126	959	4,800	0.17	A
Pacific Coast Highway	South of Morning View Drive	4D	26,068	126	26,194	39,300	0.66	B

Source: Kittelson & Associates 2021.
Notes: U = undivided roadway D = divided roadway

Additionally, the relocated bus barn would be situated to maintain critical functionality and access to and from the campus and surrounding community. All existing shared facility City programs on the athletic fields, pool, and Boys & Girls Club would continue to operate in the same manner as existing conditions. Therefore, the Proposed Project would physically and functionally integrate the new campus and its amenities with the surrounding neighborhoods and community; and would not affect Policy 3.1.1 of the Circulation and Infrastructure Element.

City of Malibu Local Coastal Program Land Use Plan

Operation of the Proposed Project would implement the new Parking Lots C and D, which would also serve as the drop-off and pick-up areas for MMHS. The school would continue to use Parking Lot B. As previously discussed, the Proposed Project would not substantially change the access configurations and would not result in a change in traffic patterns. The configuration of the new Parking Lots C, D, and E would improve traffic conditions because access to Lots D and E are farther west and away from the drop-off and pick-up area adjacent to the school on Morning View Drive, and Parking Lot C compared to the existing JCES parking lot provides better on-site circulation and vehicular storage. Construction and operation of the Proposed Project would not restrict public access to and from the Proposed Project and would not affect LUP Policy 2.5. Therefore, impacts would be less than significant.

The Proposed Project would include parking lot improvements throughout the Project Site. The Proposed Project would remove existing Parking Lot A, the JCES Lots, and the Service Lot, which are on the western side of the campus. Existing Parking Lots D and E would remain in their current condition and be renamed to Lot A (150 spaces) and Lot B (62 spaces), respectively; and the following new parking lots would be constructed:

- Lot C, 25 spaces – Bus drop-off, visitor parking
- Lot D, 129 spaces – Student or staff parking
- Lot E, 32 spaces – Student or staff parking
- Lot F, 14 spaces – Field parking

As show in Table 5.14-1, the Project Site currently has 375 parking spaces, which are sufficient to meet the current needs of students, staff, and community events at MMHS. The Proposed Project would result in a total of 412 off-street parking spaces at the Project Site, which would be exceed the existing conditions and would continue to be sufficient to meet the needs of students, staff, and community events, since the Proposed Project would not increase population at the school. Thus, the Proposed Project would comply with LUP 2.25 and would provide off-street parking sufficient to serve the approved use to minimize impacts to public street parking. Therefore, impacts would be **less than significant**.

Pedestrian and Bicycle Facilities Assessment

All circulation within the Project Site would be wheelchair accessible via a network of ramps and elevators, connecting parking lots with athletic and educational facilities. The Proposed Project would include a pedestrian trail system that connects to a larger system of existing trails around the Equestrian Park and surrounding hills. Pedestrian access to the campus would remain along Morning View Drive with access at the new drop-off area, and Clover Heights Avenue, with access to the athletic fields. Access to the parking areas on the western portion

of the Project Site would be located further west and away from the student drop-off area on Morning View Drive. Thus, the Proposed Project would comply with Policy 1.2.4 of the Circulation and Infrastructure Element, to develop pedestrian walkways and equestrian paths in areas that can safely accommodate them. There is currently no existing or planned bicycle infrastructure near the site; therefore, no bicycle or pedestrian facilities would be affected with implementation of the Proposed Project.

In summary, the Proposed Project would be confined to the Project Site and would not construct or modify the surrounding circulation network, including roads transit, bicycle, and pedestrian facilities. Therefore, the Proposed Project would not conflict with any regulations set forth by the City of Malibu's General Plan and/or LCP. Therefore, the Proposed Project would not conflict with a program, plan, ordinance, or policy regarding public transit, roadway, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Impacts would be considered **less than significant**.

Impact 5.14-2: The Proposed Project would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). [Threshold T-2]

On December 28, 2018, the California Natural Resources Agency adopted revised CEQA Guidelines, one of which was the removal of vehicle delay and LOS from consideration under CEQA. CEQA Guidelines § 15064.3 describes how transportation impacts are to be analyzed after SB 743. It eliminates auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the sole basis for determining significant impacts. Transportation impacts will instead be evaluated based on a project's effect on VMT.

Generally, VMT is the most appropriate measure of transportation impacts. For the purposes of this section, VMT refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) … [regarding roadway capacity], a project's effect on automobile delay shall not constitute a significant environmental impact.

Compliance with the revised transportation guidelines pursuant to SB 743 became effective on July 1, 2020. The District has not yet adopted a VMT threshold for use in determining significant transportation impacts under CEQA and are relying on the OPR's December 2018 Technical Advisory that provides recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures.

Construction Vehicle Miles Traveled

Phase 1 Construction Vehicle Miles Traveled

Construction of the Proposed Project would require the mobilization of workers, vendors, equipment, and haul trucks to and from the Project Site, which would generate a temporary increase in traffic and may cause delays on roadways adjacent to the Project Site. Construction traffic is anticipated to travel to and from the Project Site via Morning View Drive and PCH, and could occur during the regular school calendar year, as well as during summer months, when school is not in session. However, the increase in trips and the subsequent increase in VMT to the Project Site would be temporary and vary with the level of effort necessitated by each phase of construction. To further reduce the amount of VMT to the Project Site, the construction management

team can include strategies to encourage workers to carpool or use transit when possible and source materials and equipment locally. Thus, increases to VMT during construction activities would be considered negligible and construction-related VMT impacts would be considered **less than significant**.

Phases 2 through 4 Construction VMT

Construction of Phases 2 through 4 would occur over several years and generate temporary construction trips. The number of construction trips would vary greatly depending on the construction activity. Construction traffic during Phases 2 through 4 would add vehicle trips to the Project Site; however, construction activities would not establish permanent traffic patterns that would contribute to ongoing VMT increases. The nature of construction activities requires employee and truck trips from one phase work area to the next as construction suppliers and employees work on different phases. Any subsequent increase in VMT to the Project Site during construction would be temporary. Therefore, impacts would be considered **less than significant**.

Operation

For the purpose of this analysis, the VMT evaluation is based on the total VMT change with the Project, where an impact would occur if the Project would result in an increase in total VMT. The total trip generation for a school with an enrollment of 1,000 students is 10,280 miles (see discussion under "Methodology," above). The Proposed Project would not increase the student or employment population at MMHS, and the attendance boundaries of the school would not change; the Proposed Project would not result in more vehicle trips to and from the school during operation of the Proposed Project when compared to existing conditions. In addition, the Proposed Project would not modify primary site access locations and traffic patterns—which could potentially result in an increase in the average trip lengths. Because total VMT is a function of the total number of trips multiplied by the average trip lengths, the Proposed Project would not result in a VMT increase. Therefore, impacts related to VMT associated with full buildout of the Proposed Project would be considered **less than significant**.

Bus Barn Relocation Assessment

The existing bus barn would be relocated to the east of Parking Lot A within the District-owned Malibu Equestrian Park as part of Phase 4 of the Project. The relocated bus barn would hold up to five buses; however, three buses would typically be in operation, and would operate from 6:45 a.m. to 6:00 p.m. every weekday. No refueling or maintenance will occur at the new bus barn.

Due to the operation of three buses, bus access would continue to come from Morning View Drive, and the impacts to the circulation network and changes in VMT would be negligible. Therefore, impacts related to VMT as a result of the new bus barn, would be considered **less than significant**.

Impact 5.14-3: Project circulation improvements have been designed to adequately address potentially hazardous conditions (sharp curves, etc.), and potential conflicting uses. [Thresholds T-3]

Construction

Construction of the Proposed Project would temporarily generate additional traffic on the existing area roadway network. These vehicle trips would include construction workers traveling to and from the Project Site, as well as delivery trips associated with construction equipment and materials.

Phase 1 Construction and Staging Areas

During construction of the Proposed Project, the peak volume of construction traffic is estimated to be approximately 299 trips per day during the rough grading phase of construction. Over a typical eight-hour workday, this adds approximately 38 trips per hour. However, construction trips would be substantially lower than school-related traffic of approximately 2,482 trips per day, 651 during the AM peak, and 405 during student dismissal. Trips from construction workers and haul trucks would be outside the school peak hours and would not overlap with student pick-up and drop-off. The potential 38 hauling trips and 60 worker trips related to construction would be substantially lower than school traffic during student drop-off and pick-up and would have a negligible effect on traffic conditions in the study area.

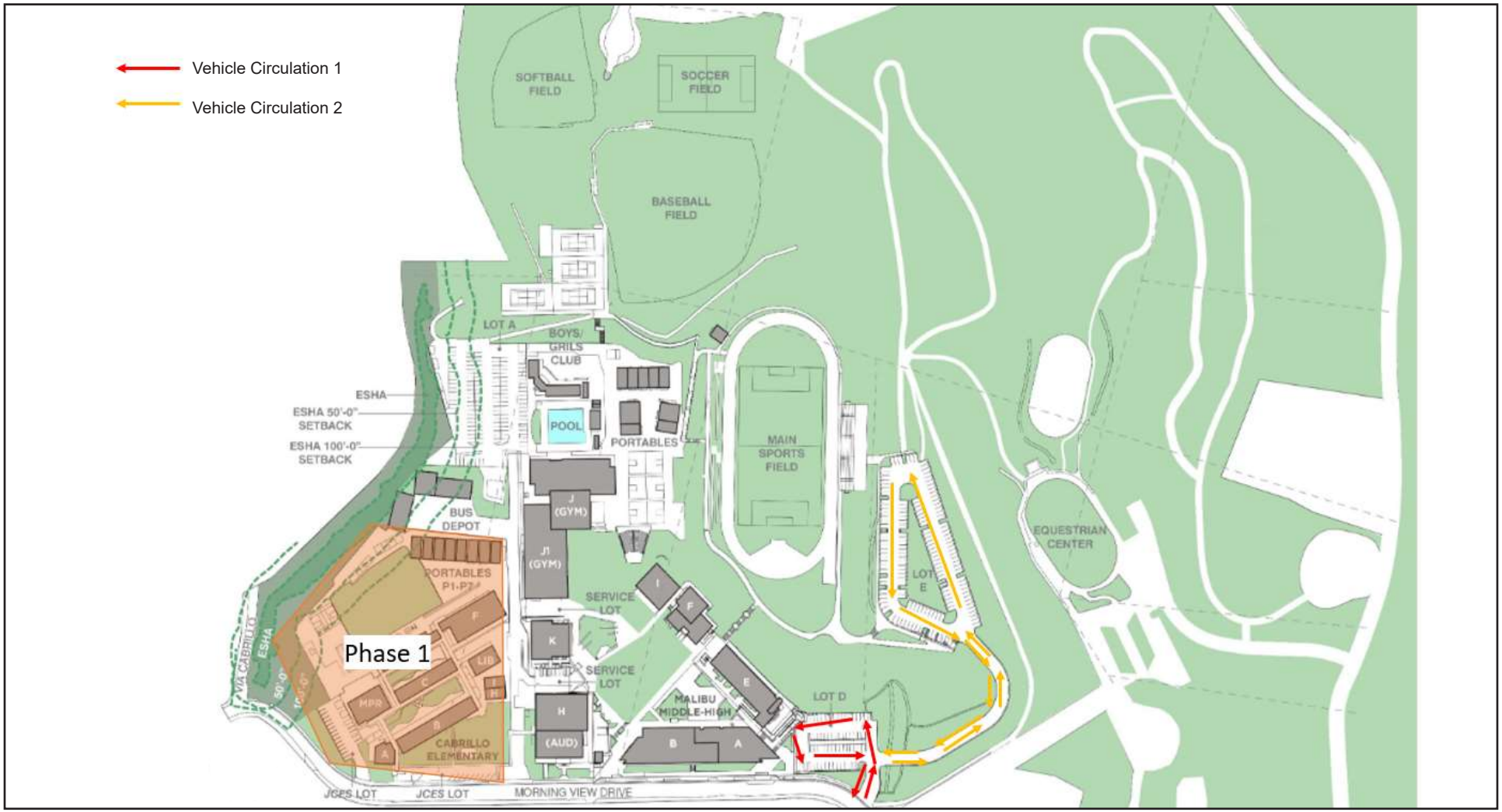
Construction of Phase 1 would include the demolition of the existing JCES campus, and construction of Building C and Parking Lots C and D. The existing Parking Lots A and B would be available for student drop-off and pick-up during the construction of Phase 1; however, since the existing JCES parking lot would be demolished, vehicles that use the curbside drop-off area on Morning View Drive adjacent to the school campus would not be able to make a U-turn to head south on Morning View Drive. Drop-off on Morning View Drive would be prohibited, as there are few opportunities to make U-turns southbound on PCH (see Figure 5.14-2, *Phase 1 Circulation*). Additionally, the intersection of Guernsey Avenue at PCH is not signalized and cannot accommodate high traffic volumes on the Guernsey Avenue approach. These changes to circulation could result in increased congestion during pick-up/drop-off times, which result in potentially hazardous conditions and conflicting uses with active school and construction, and therefore **potentially significant impacts**. Mitigation measures T-1 and T-2 would be implemented during Phase 1 construction activities.

Phases 2 through 4 Construction

Similar to Phase 1, during Phases 2 through 4, the majority of construction traffic during the peak hours would consist of construction workers and vendors traveling to and from the Project Site. Similar to Phase 1, peak volume of construction traffic would be estimated to be approximately 299 trips per day during the rough grading phase of construction. Over a typical eight-hour workday, this adds approximately 38 trips per hour. However, the construction trips would be substantially lower compared to school-related traffic. In addition, during Phases 2 through 4, the newly constructed drop-off and pick-up areas in Parking Lots C and D would be available, and the school would continue to use Parking Lot B and the new Parking Lots D and E that would be implemented in Phase 1 of the Proposed Project. Nevertheless, given the likelihood that construction activities would occur during active school periods, impacts related to hazardous circulation conditions would

be **potentially significant**. Mitigation measures T-1 and T-3 would be implemented during Phases 2 through 4.

Figure 5.14-2 Phase I Circulation



Source: Kittelson & Associates, Inc., 2021

5. Environmental Analysis
TRANSPORTATION

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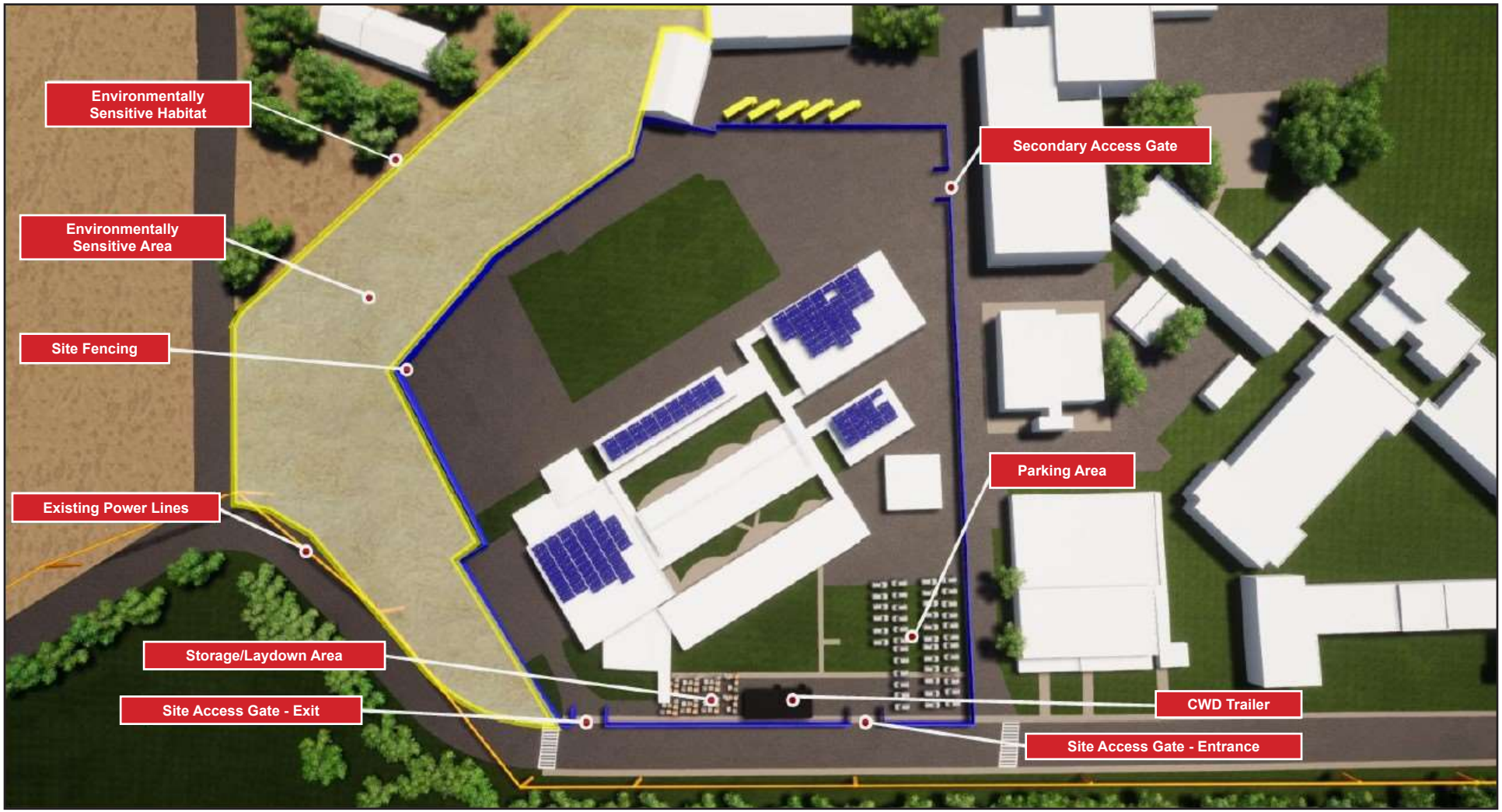
Figure 5.14-3 Phase I Staging Area and Access



Source: Kittelson & Associates, Inc., 2021

5. Environmental Analysis
TRANSPORTATION

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Operation

The Proposed Project would not change the land use of the Project Site, which is currently the MMHS campus. Three main changes regarding operational changes that could affect hazardous circulation conditions include the new parking lot/access locations, pedestrian circulation, and the relocation of the bus barn. These are evaluated below.

New Parking Lots

The Project Site is currently accessed from Morning View Drive at two main points of vehicular entry. The first entry is on the eastern edge of campus from Morning View Drive at the Lower Parking Lot B, which has historically been used for student drop-off. The second entry is at the access road between the former JCES and the MMHS campus. This entry point provides access to the JCES Parking Lot, where most drop-off and pick-up activity occurs for high school students at the Upper Lot located west of the track and field area.

The Proposed Project would remove existing Lot A, the JCES Lots, and the Service Lot, which are on the western side of the campus. Existing Parking Lots D and E would be renamed to Lots A and B, new parking lots C, D, E, and F would be constructed. The new Parking Lots C and D would also serve as the drop-off and pick-up areas for MMHS. In the 2021-2022 school year, drop-off and pick-up is taking place at the upper lot A and at the upper lot in the areas where Lots E and F would be constructed as part of the Project. The areas of Morning View Drive are being used for bus drop-off in the morning and for student pick-up in the afternoon. The proposed access driveways and parking lot configurations would provide several locations for student drop-off and pick-up away from the curbside area on Morning View Drive, serving to improve overall traffic flow related to school operations. Parking Lot C would serve as the bus drop-off location in the mornings and would be used for student pick-up in the afternoon; and Parking Lot B would serve as the bus pick-up location in the afternoon. The Proposed Project would not substantially change the access configurations to and from the Project Site and the surrounding areas. The configuration of the new Parking Lots C, D, and E would improve traffic conditions because access to Lots D and E would be located farther west, away from the drop-off and pick-up area adjacent to the school on Morning View Drive. Parking Lot C, compared to the existing JCES parking lot, provides better on-site circulation and vehicular storage. The existing and future parking lots and access driveways provide several opportunities for drivers heading west on Morning View Drive to make a U-turn to return to the south via PCH. Thus, the proposed access driveways and parking lot configurations would improve circulation, as they would provide better separation from the drop-off area off Morning View Drive, and the parking lots provide better off-street queuing for vehicles. Therefore, impacts to access as a result of implementation of the new parking lots would be **less than significant**.

Pedestrian Facilities

All proposed circulation improvements would be wheelchair accessible via a network of ramps and elevators, connecting parking lots with athletic and educational facilities. The Proposed Project would also include a pedestrian trail system that would connect to a larger system of existing trails around the Equestrian Park and surrounding hills. Pedestrian access to the campus would remain along Morning View Drive with access at the new drop-off area, and Clover Heights Avenue, with access to the athletic fields. Access to the parking areas on the western portion of the Project Site would be further west and away from the student drop-off area on

Morning View Drive. Because of the relocation of the proposed access driveways, the existing location of the crosswalks on Morning View Drive would need to be relocated. Without relocation of existing crosswalks, crossing guards, and related pedestrian safety signage in conjunction with the proposed driveways to provide vehicular access to parking areas and drop-off areas, **potentially significant impacts** related to hazardous conditions could occur. Implementation of Mitigation Measure T-4 would be required to ensure relocated facilities sufficiently address pedestrian safety needs.

Bus Barn Relocation Assessment

The existing bus barn is currently north of the JCES campus buildings and west of the gym. Access to the existing bus barn is currently provided via an access driveway between the former JCES campus and the MMHS campus, which also provides access to the Maintenance and Operations Warehouse and Student Parking Lot A. The bus barn would be relocated to the east of Parking Lot A within the District-owned Malibu Equestrian Park, as part of Phase 4 of the Proposed Project. The relocated bus barn would accommodate up to five buses (three are typically in operation), that would operate between 6:45 a.m. and 6:00 p.m., Monday through Friday. No refueling or maintenance would occur at the new bus barn, consistent with current operation.

Buses would access the bus barn via an existing access driveway from Merritt Drive, approximately 0.3 miles from the intersection at Morning View Drive and Merritt Drive. The existing driveway provides sufficient road width access for bus circulation, and currently provides sufficient access for horse trailers. Bus ingress and egress to and from the bus barn area would not coincide with student drop-off and pick-up times because the school buses are already running their routes during student drop-off and pick-up times. In addition, the relocated bus barn and driveway access would reroute buses away from the sections of Morning View Drive where heavy pedestrian and vehicular school activity occur. During operation of the Proposed Project, bus access would continue to come from Morning View Drive; however, the circulation network would not change as a result of the Proposed Project. Therefore, the relocation of the bus barn would not result in hazardous conditions or conflicting uses and impacts would be **less than significant**.

5.14.4 Mitigation Measures

Impact 5.14-3

T-1 During each phase of construction activity, SMMUSD shall work with the City of Malibu Public Works Department to develop and implement a Construction Traffic Mitigation Plan that is specific to the needs of each phase and shall include the following:

- Haul trucks and vendor truck traffic ingress and egress to/from the construction area shall not occur 30 minutes before or after student arrival and dismissal times—8:30 am Monday through Friday, 1 pm to 3 pm Monday through Thursday, and 12 pm to 1:30 pm on Friday.
- The plan shall eliminate curbside parking on the south side of Morning View Drive south of the construction staging area to provide adequate turn radius and site distance to access for trucks entering and leaving work sites. This would apply to construction Phases 1, 2, and 3 only, which would have access via the segment of Morning View Drive adjacent to the school frontage.

- The plan shall include a Traffic Education Program to assist in educating parents, students, and staff on drop-off/pick-up procedures specific to each phase of construction. Informational materials shall be disseminated regarding student drop-off and pick-up procedures via regular parent/school communication methods and shall be posted on the school website.

- The use of portable message signs and information signs at construction sites shall be employed as needed.

- Construction activities for each phase shall be coordinated with the responsible agency departments, including the City of Malibu Public Works and Planning Departments, and the Los Angeles County Sheriff and Fire Departments no less than 10 days prior to the start of the work for each phase. Notification shall specify whether any temporary vehicle, pedestrian, or bicycle construction detours are needed, if construction work would encroach into the public right-of-way, or if temporary use of public streets surrounding the Project Site is needed.

T-2 To facilitate safe and efficient vehicular and pedestrian circulation during student drop-off and pickup, times during Phase 1, prior to initiation of construction activities, SMMUSD shall work with the City of Malibu Public Works Department to develop and implement a Traffic and Parking C Plan to include the following:

- Designation of vehicular drop-off and pick-up areas outside Morning View Drive at off-street Parking Lots A, D, and E. Vehicular access to these lots shall allow vehicles to enter and return from the area from the intersection of Morning View Drive at PCH.

- Student drop-off and pick-up shall be implemented in a counterclockwise circulation pattern. Figure 7 (see Appendix L) depicts vehicular circulation patterns that shall be used in Parking Lots A, D, and E during Phase 1 construction.

- The school shall educate students and parents on drop-off and pick-up routes and procedures. This may be achieved with a combination of information bulletins shared with students and parents.

T-3 Construction scheduling during Phases 2 to 4 shall be scheduled such that any activities that would result in potential lane closures along Morning View Drive, including, but not limited to, reconstruction of the student drop-off/pick-up area and sidewalks along Morning View Drive, shall be limited to summer months when school is not in session to eliminate conflicts with local traffic and pedestrian activities.

T-4 The SMMUSD shall coordinate with the City of Malibu Public Works Department to relocate crosswalks and school-area signage in relation to the proposed access driveways according to City of Malibu and applicable State criteria. Crossing guards shall be relocated as necessary, based on the ultimate location of crosswalks.

5.14.5 Level of Significance After Mitigation

Mitigation Measures T-1 through T-4 would reduce potential impacts associated with construction-related circulation, hazards, and safety issues to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to transportation would occur.

5.14.6 Cumulative Impacts

The Proposed Project would be consistent with adopted policies, plans, and programs regarding circulation, including roadway and pedestrian facilities. Construction and operation of the Proposed Project would comply with the Malibu General Plan's Circulation and Infrastructure Element, the Malibu LCP's LUP, and SCAG's RTP/SCS. As such, the Proposed Project would not worsen LOS at any intersection or roadways within the vicinity of the Project Site and would not restrict access to and from the Project Site. City of Malibu planning staff provided a list of cumulative projects (see Appendix M) in the city. A summary of cumulative projects used in the impact analysis is included in Table 5.14-13, *Cumulative Projects* (see Figure 4-2, *Cumulative Projects*).

Table 5.14-13 Cumulative Projects

Project	Location	Project Components
Whole Foods and The Park Shopping Center	Civic Center Way and Cross Creek Road	• 24,549 sq ft Whole Foods • 13,876 sq ft commercial retail buildings • Up to 4,000 sq ft restaurant space
Malibu Inn Motel (Replaced Malibu Surfrider Plaza)	22959 PCH, Malibu CA	• 7,693 sq ft motel with 20 lodging units • 47 parking spaces for motel • 40 surface spaces for overflow • Project completion: July 2022
Malibu Memorial Park	4000 Malibu Canyon Rd, Malibu CA	• 6,000 sq ft chapel • 47 mausoleum structures • 28,265 in-ground burial plot spaces
SMC – Malibu Campus	23555 Civic Center Way, Malibu CA	• 25,000 sq ft • Project completion: August 2022
La Paz Ranch	3700 La Paz Ln, Malibu CA	• 20,000 sq ft City Hall complex • 112,058 sq ft of commercial office and retail uses
Malibu Jewish Center and Synagogue	24855 PCH, Malibu CA	• 2-story, 16,410 sq ft classroom/admin building • 2,013 sq ft synagogue building and basement
Malibu Beach Inn Hotel	22878 PCH, Malibu CA	• Constructing amenities
Sea View Hotel	22729 and 22741 PCH, Malibu CA	• 23,278 sq ft building with 39 hotel rooms • 91 parking spaces • Project completion: January 2023
Malibu Skate Park	PCH and Malibu Canyon Rd	• 12,500 sq ft skate park
Trancas Bridge Replacement Project	Bridge on PCH at Trancas Creek	• Project completion: July 2023
Phase 1 of the Malibu Schools Alignment Project	6955 Fernhill Drive	• 15,000 sq ft, 8-classroom building • 2,500 sq ft admin building

Source: Kittelson Associates Inc. 2021.

However, given the amount of traffic, the direction, and the distance that these cumulative projects would generate, none would result in a substantial amount of traffic to the Project Site or the surrounding area.

Cumulatively, the Proposed Project would not alter the traffic patterns of the Project Area or the City of Malibu. Since the Proposed Project would not result in an increase in student or staff population in MMHS, it is not anticipated to create VMT impacts that would be specific to the Project Site and would not contribute to any cumulative VMT impacts in the city or region. Additionally, site access would be adequately designed and would not combine with other area traffic impacts to result in a significant cumulative impact on circulation or create hazardous conditions. Therefore, the Proposed Project would be less than cumulatively significant.

5. Environmental Analysis
TRANSPORTATION

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5.14.7 References

Kittelson & Associates, Inc. 2021. Malibu Middle and High School Campus Specific Plan Transportation Impact Analysis.

Malibu, City of. 2019, December. Traffic Memorandum and Traffic Impact Analysis Guidelines.

5. Environmental Analysis
TRANSPORTATION

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5.15 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Environmental Impact Report (DEIR) evaluates the Malibu Middle and High School (MMHS) Campus Specific Plan Project's (Proposed Project) potential impacts to utilities and service systems from implementation of the Proposed Project. It specifically evaluates potential impacts related to water supply and infrastructure, wastewater generation and treatment, stormwater drainage, electric power, natural gas, and telecommunications facilities, and solid waste generation.

Two comment letters addressing utilities and service systems were received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project. The comments expressed concern on potential impacts resulting from wastewater treatment systems and disposal of effluent wastewater. All comments received for the Proposed Project were taken into consideration during preparation of this DEIR, have been addressed in this section or others within this document. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.15.1 Environmental Setting

5.15.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to utilities and service systems that are applicable to the Proposed Project are summarized in this section.

Federal

National Pollutant Discharge Elimination System Permits

The United States Environmental Protection Agency (EPA) is the lead federal agency responsible for managing water quality. The Clean Water Act (CWA) of 1972 is the primary federal law that governs and authorizes EPA and the states to implement activities to control water quality. Under federal law, the EPA has published water quality regulations under Volume 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 CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) 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. The EPA is the federal agency with primary authority for implementing regulations adopted under the CWA. The EPA has delegated to the State of California the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the state's Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act), described in the "State" regulations subsection that follows.

The NPDES permit program was established in the CWA to regulate municipal and industrial (M&I) discharges to surface waters of the United States. A discharge from any point source is unlawful unless the discharge complies with an NPDES permit. Federal NPDES permit regulations have been established for broad

categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Antidegradation Policy

The federal antidegradation policy, established in 1968, is designed to protect existing uses, water quality, and national water resources. The federal policy directs states to adopt a statewide policy that includes the following primary provisions:

- Existing in-stream uses and the water quality necessary to protect those uses shall be maintained and protected.
- Where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development.
- Where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

Safe Drinking Water Act

Under the Safe Drinking Water Act of 1974 (Public Law 93-523), the EPA regulates contaminants of concern to domestic water supply. Contaminants of concern relevant to domestic water supply are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by the EPA's primary and secondary maximum contaminant levels (MCLs), which are applicable to treated water supplies delivered to the distribution system. MCLs and the process for setting these standards are reviewed triennially. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting MCLs for drinking water.

The EPA has delegated to the California Department of Public Health (DPH) the responsibility for administering California's drinking-water program. DPH is accountable to the EPA for program implementation and for adopting standards and regulations that are at least as stringent as those developed by the EPA. The applicable state primary and secondary MCLs are set forth in Title 22, Division 4, Chapter 15, Article 4 of the California Code of Regulations (CCR) and are described under the "Title 22 Standards" heading later in this section.

State

State Water Resources Control Board

In California, the State Water Resources Control Board (SWRCB) has broad authority over water-quality control issues for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the CWA. Other state agencies with jurisdiction over water quality regulation in California include DPH (for drinking-water regulations), the California Department of Pesticide Regulation, the California Department of Fish and Wildlife (CDFW), and the Office of Environmental Health and Hazard Assessment (OEHHA).

Regional authority for planning, permitting, and enforcement is delegated to the nine Regional Water Quality Control Boards (RWQCBs). The regional boards are required to formulate and adopt Basin Plans for all areas in the region and establish water quality objectives in the plans. California water quality objectives (or "criteria" under the CWA) are found in the Basin Plans adopted by SWRCB and each of the nine RWQCBs. The Los Angeles Regional Water Quality Control Board (LARWQCB) is responsible for the regional area that includes the City of Malibu.

Title 22 Standards

Water quality standards are enforceable limits composed of two parts: (1) the designated beneficial uses of water and (2) criteria (i.e., numeric or narrative limits) to protect those beneficial uses. Municipal and domestic supply (MUN) is among the "beneficial uses," as defined in section 13050(f) of the Porter-Cologne Act, which defines them as uses of surface water and groundwater that must be protected against water quality degradation. MCLs are components of the drinking-water standards adopted by the California DPH pursuant to the California Safe Drinking Water Act. California MCLs may be found in CCR Title 22, Division 4, Chapter 15, Domestic Water Quality and Monitoring. DPH is responsible for CCR Title 22 (Article 16, section 64449) as well, which also defines secondary drinking water standards, established primarily for reasons of consumer acceptance (i.e., taste) rather than because of health issues.

Drinking water MCLs are directly applicable to water supply systems "at the tap" (e.g., at the point of use by consumers in their home and office. California MCLs, both Primary and Secondary, are directly applicable to groundwater and surface water resources when they are specifically referenced as water quality objectives in the pertinent Basin Plan. In such cases, MCLs become enforceable limits by SWRCB and the RWQCBs. When fully health protective, MCLs may also be used to interpret narrative water quality objectives prohibiting toxicity to humans in water designated as a source of drinking water MUN in the applicable Basin Plan.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is California's statutory authority for the protection of water quality. Under the act, the state must adopt water quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update Basin Plans. Basin Plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality

objectives, and implementation programs are established for each of the nine regions in California. The act also requires waste dischargers to notify the RWQCBs of their activities through the filing of reports of waste discharge (RWDs) and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWDs and/or waste discharge requirements for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

California State Nondegradation Policy

In 1968, as required under the federal antidegradation policy described previously, the SWRCB adopted a nondegradation policy aimed at maintaining high quality for waters in California. The nondegradation policy states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of the state. The policy provides as follows:

- Where the existing quality of water is better than required under existing water quality control plans, such quality would be maintained until it has been demonstrated that any change would be consistent with maximum benefit to the people of the state and would not unreasonably affect present and anticipated beneficial uses of such water.

- Any activity which produces waste or increases the volume or concentration of waste and which discharges to existing high-quality waters would be required to meet waste discharge requirements, which would ensure (1) pollution or nuisance would not occur and (2) the highest water quality consistent with the maximum benefit to the people of the state would be maintained.

California Coastal Act

The California Coastal Act of 1976 (CCA) is the permanent enacting law approved by the State Legislature. The CCA established a set of policies, coastal boundary lines, and permitting procedures regulating coastal development. Further, it provides for the transfer of permitting authority, with certain limitations reserved for the State, to local governments through adoption and certification of the Local Costal Program (LCP) by the California Coastal Commission (CCC). The CCA requires that the biological productivity and quality of coastal waters be protected. Section 30231 of the CCA requires the use of means, including managing wastewater discharges, controlling runoff, protecting groundwater and surface water, encouraging wastewater reclamation, and protecting streams, to maintain and enhance water quality. The CCA also provides that no term or condition may be imposed on the development of any sewage treatment plant relative to future development that can be accommodated (consistent with the CCA).

California Integrated Waste Management Act

In response to reduced landfill capacity, in 1989, the State of California passed the California Integrated Waste Management Act (CIWMA). This legislation (generally known by the name of the enacting bill Assembly Bill

[AB] 939) requires cities and counties to reduce the amount of solid wastes entering existing landfills, through recycling, reuse, and waste prevention efforts.

AB 939 requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction planned to meet mandatory state waste diversion goals of 25 percent by the year 1995, 50 percent by the year 2000, and 75 percent by the year 2020. The purpose of AB 939 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." Noncompliance with the goals and timelines set forth within the act can be severe, as the bill imposes fines up to $10,000 per day on jurisdictions not meeting these recycling and planning goals. AB 341 went into effect July 2012 and establishes a 75-percent diversion rate for the year.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. Among the CPUC's goals for energy regulation are: to establish service standards and safety rules, authorize utility rate changes, oversee markets to inhibit anti-competitive activity, prosecute unlawful utility marketing and billing activities, govern business relationships between utilities and their affiliates, resolve complaints by customers against utilities, implement energy-efficiency and conservation programs and programs for the low-income and disabled, oversee the merger and restructure of utility corporations, and enforce the California Environmental Quality Act (CEQA) for utility construction.

Title 24 of the California Code of Regulations

Title 24 of the CCR sets forth requirements for "energy conservation, green design, construction and maintenance, fire and life safety, and accessibility" that apply to the "structural, mechanical, electrical, and plumbing systems" in a building. Title 24 is designed to reduce wasteful and unnecessary energy consumption in newly constructed and existing buildings. It was published by the California Building Standards Commission and applies to all buildings in California.

Regional

Los Angeles Regional Water Quality Control Board

The City of Malibu is in the jurisdiction of the LARWQCB, Region 4. The LARWQCB protects ground and surface water quality in the Los Angeles region, including the coastal watersheds of Los Angeles and Ventura Counties, along with very small portions of Kern and Santa Barbara Counties. The RWQCB addresses region-wide and specific water quality concerns through updates of the Water Quality Control Plan (Basin Plan) for the Los Angeles region; prepares, monitors compliance with, and enforces waste discharge requirements, including NPDES Permits; implements and enforces local stormwater control efforts; regulates the cleanup of contaminated sites, which have already polluted or have the potential to pollute groundwater or surface water; enforces water quality laws, regulations, and waste discharge requirements; coordinates with other public agencies and groups that are concerned with water quality; and informs and involves the public on water quality issues (California Water Boards 2021).

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Land Use Plan

The LUP identifies the following policies related to utilities and service systems (City of Malibu 2002b):

- **LUP Policy 3.124 -** A Wastewater Management Plan should be developed within a timeframe to be determined by the City in consultation with the Environmental Review Board, Wastewater Advisory Committee, and other pertinent City committees, to address future wastewater issues.

- **LUP Policy 3.125 -** Development involving on-site wastewater discharges shall be consistent with the rules and regulations of the L.A. Regional Water Quality Control Board, including Waste Discharge Requirements, revised waivers and other regulations that apply.

- **LUP Policy 3.126 -** Wastewater discharges shall minimize adverse impacts to the biological productivity and quality of coastal streams, wetlands, estuaries, and the ocean. On-site treatment systems (OSTSs) shall be sited, designed, installed, operated, and maintained to avoid contributing nutrients and pathogens to groundwater and/or surface waters.

- **LUP Policy 3.127 -** OSTSs shall be sited away from areas that have poorly or excessively drained soils, shallow water tables or high seasonal water tables that are within floodplains or where effluent cannot be adequately treated before it reaches streams or the ocean.

- **LUP Policy 3.128 -** New development shall be sited and designed to provide an area for a backup soil absorption field in the event of failure of the first field.

- **LUP Policy 3.129** - Soils should not be compacted in the soil absorption field areas during construction. No vehicles should be parked over the soil absorption field or driven over the inlet and outlet pipes to the septic tank.

- **LUP Policy 3.130 -** Subsurface sewage effluent dispersal fields shall be designed, sited, installed, operated, and maintained in soils having acceptable absorption characteristics determined either by percolation testing, or by soils analysis, or by both. No subsurface sewage effluent disposal fields shall be allowed beneath nonporous paving or surface covering.

- **LUP Policy 3.131 -** New development shall include the installation of low-flow plumbing fixtures, including but not limited to flow-restricted showers and ultra-low flush toilets, and should avoid the use of garbage disposals to minimize hydraulic and/or organic overloading of the OSTS.

- **LUP Policy 3.132 -** New development may include a separate graywater dispersal system where approved by the Building Safety Department.

- **LUP Policy 3.133 -** New development shall include protective setbacks from surface waters, wetlands, and floodplains for conventional or alternative OSTSs, as well as separation distances between OSTS system components, building components, property lines, and groundwater. Under no conditions shall the bottom of the effluent dispersal system be within 5 feet of groundwater.

- **LUP Policy 3.134 -** The construction of private sewage treatment systems shall be permitted only in full compliance with the building and plumbing codes and the requirements of the LA RWQCB. A coastal development permit shall not be approved unless the private sewage treatment system for the project is sized and designed to serve the proposed development and will not result in adverse individual or cumulative impacts to water quality for the life of the project.

- **LUP Policy 3.135 -** OSTSs shall be designed, sited, installed, operated, and maintained in compliance with the policies and provisions contained herein. At such time as the rules and regulations developed for OSTSs by the State Water Resources Control Board pursuant to Assembly Bill 885 become effective, if they conflict with the requirements of the LCP, the City shall submit an LCP amendment seeking to modify the requirements of the LCP.

- **LUP Policy 3.136 -** In areas with constraints on private sewage treatment and disposal, including, but not limited to, small lots, beachfront parcels, and geologic hazard areas, innovative and alternative methods of wastewater treatment and disposal are permitted. Such systems shall minimize impacts to water quality and coastal resources and be acceptable to the Environmental and Building Safety Department, and the Regional Water Quality Control Board.

- **LUP Policy 3.138 -** Applications for new development relying on an OSTS shall include a soils analysis and or percolation test report. Soils analysis shall be conducted by a California Registered Geotechnical Engineer or a California Registered Civil Engineer in the environmental/geotechnical field and the results expressed in United States Department of Agriculture classification terminology. Percolation tests shall be conducted by a California Registered Geologist, a California registered Geotechnical Engineer, a California Registered Civil Engineer, or a California Registered Environmental Health Specialist. The OSTS shall be designed, sited, installed, operated, and maintained in full compliance with the building and plumbing codes and the requirements of the LA RWQCB.

- **LUP Policy 3.140 -** New septic systems shall be sited and designed to ensure that impacts to ESHA, including those impacts from grading and site disturbance and the introduction of increased amounts of groundwater, are minimized. Adequate setbacks and/or buffers shall be required to protect ESHA and other surface waters from lateral seepage from the sewage effluent dispersal systems.

- **LUP Policy 3.141 -** Applications for a coastal development permit for OSTS installation and expansion, where groundwater, nearby surface drainages and slope stability are likely to be adversely impacted as a result of the projected effluent input to the subsurface, shall include a study prepared by a California Certified Engineering Geologist or Registered Geotechnical Engineer that analyzes the cumulative impact of the proposed OSTS on groundwater level, quality of nearby surface drainages, and slope stability. Where it is shown that the OSTS will negatively impact groundwater, nearby surface waters, or slope stability, the OSTS shall not be allowed.

- **LUP Policy 3.143 -** The formation of On-Site Wastewater Zones pursuant to section 6950 et seq. of the California Health and Safety Code shall be considered in appropriate areas.

- **LUP Policy 3.144 -** Cooperation and coordination with the Los Angeles Regional Water Quality Control Board to ensure septic system conformance with regional water quality standards shall be provided.

- **LUP Policy 3.145 -** The City shall provide to the public information on the proper operation and maintenance of an OSTS. The City will establish an OSTS management program which includes, but is not limited to, OSTS inspections by a qualified professional.

Local Coastal Program's Local Implementation Plan

LIP section 18.11, Water Systems/Wastewater Management

A. The expansion of water and wastewater systems of the city (City of Malibu 2002c). The section emphasizes that the expansion of existing community sewer facilities (package wastewater treatment plants, dedicated sewer service systems, existing trunk lines, etc.) in existing developed areas shall be limited in capacity to the maximum level of development allowed by the LCP.

B. The formation of Onsite Wastewater Disposal Zones pursuant to § 6950 et seq. of the California Health and Safety Code should be investigated and considered for use as a method to protect water quality in areas where site-specific soil and groundwater conditions may adversely affect the performance of OWTSs. Such areas of special concern may include the Civic Center area, the Point Dume area, the immediate coastal strip and any areas known to have poor percolation rates, a high water table or known to be prone to geologic hazards. These zones could be used to establish site-specific design criteria, inspection and maintenance frequencies, monitoring protocols, performance standards and other water quality protection practices.

C. A City-wide public sewer system may be designed and proposed where it is found to be the least environmentally damaging wastewater treatment alternative, where it is designed to serve a capacity of development which does not exceed the amount allowed by the LCP, and where it is found to be consistent with all other policies of the LCP. In particular, the proposed method of effluent disposal shall be required to be consistent with policies requiring the protection of marine resources, riparian habitat and water quality.

D. Any proposed sewer system shall be submitted to and approved by the Coastal Commission as an LCP amendment prior to issuance of local permits and construction. Any assessment district formed to finance construction of a public sewer system shall be considered a public works project pursuant to PRC § 30114.

E. Additional water storage facilities and/or new pipelines may be allowed in the City to replace deteriorated or undersized facilities and/or to ensure an adequate source of domestic and fire protection water supply during outages or pipeline interruptions provided such facilities are designed and limited to accommodate existing or planned development allowed by the Land Use Plan and are consistent with all applicable policies of the LCP.

F. Once the Civic Center Wastewater Treatment Facility (CCWTF) begins operating, new or modified water wells within the Malibu Valley Groundwater Basin shall be allowed only in accordance with the groundwater protection zone requirements established by the California Department of Public Health.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 1. Land Use Element

The Land Use Element establishes a pattern of land use and clearly identifies standards. The element and neighborhood descriptions, along with the zoning code and map, serve as a guide for future development. The Land Use Element has the following goals, policies, and objectives related to utilities and service systems:

LU Goal 2: Manage growth to preserve a rural community character.

- **LU Objective 2.2:** Development consistent with the efficient operation of the traffic system and service infrastructure with adequate capacity to serve all residents.
  - **LU Policy 2.2.1**: The City shall require adequate infrastructure, including but not limited to roads, water, and wastewater disposal capacity, as a condition of proposed development.
  - **LU Policy 2.2.6:** The City shall coordinate with utility providers to underground all utility transmission lines and pipes when and where feasible, unless above-ground location is required for geotechnic or hydrologic safety.
  - **LU Policy 2.2.7:** The City shall implement the recommendations of the 1992 Malibu Wastewater Management Study or equivalent program.
  - **LU Policy 2.2.8:** The City shall require adequate wastewater management for development.

  To implement these policies the City shall:

- **LU Implementation Measure 46:** Adopt a wastewater treatment ordinance which appropriately and safely regulates wastewater management through on-site systems or small volume neighborhood collection systems in accordance with the City's development pattern consistent with the 1992 Wastewater Management Study. This program may include the use of state of the art technologies to eliminate pathogens from wastewater prior to release into the environment.

- **LU Implementation Measure 47:** Adopt greywater ordinance which appropriately and safely encourages and regulates use of greywater systems.

- **LU Implementation Measure 48:** Disseminate information to the community regarding options for wastewater management and use of greywater systems, including site evaluation criteria and standards for installation and maintenance of on-site septic systems.

- **LU Implementation Measure 49:** Establish water retention/detention standards.

- **LU Implementation Measure 50:** Coordinate with utility providers to implement the Public Utility Commission's Rule 20A Underground Utility Program.

- **LU Implementation Measure 51:** Require development to underground utilities where the cost does not exceed 10% of the total project cost.

- **LU Objective 4.5:** Environmentally sensitive, efficient and effective treatment of commercially generated sewage and wastewater that meets all health standards.

  - **LU Policy 4.5.1:** The City shall require commercial wastewater to be managed on-site unless an environmentally acceptable alternative exists.

  - **LU Policy 4.5.2:** The City shall allow cooperative wastewater treatment among commercial neighbors.

  To implement these policies the City shall:

  - **LU Implementation Measure 87:** Require all sewage and wastewater created on commercial property to be processed on-site septic system or by a neighborhood sewage treatment facility or in a cooperative system with neighboring properties in a manner that avoids raising the water table.

Chapter 3. Conservation Element

The City of Malibu General Plan's Conservation Element serves as a guide for the conservation, protection, restoration and management, development, and appropriate and responsible use of the City's existing natural resources. The Conservation Element has the following goals, policies, and objectives related to utilities and service systems: *Electricity*

CON Goal 3 - Energy conserved.

- **CON Objective 3.1**: Use of innovative, energy efficient techniques and systems.

- **CON Policy 3.1.1:** The City shall educate the community regarding the importance of and techniques for energy conservation.
- **CON Policy 3.1.2:** The City shall encourage state-of-the-art energy efficiency standards for all new construction design.
- **CON Policy 3.1.3:** The City shall protect solar access.
- **CON Policy 3.1.4:** The City shall encourage the use of solar and other non-polluting, renewable energy sources.

To implement these policies the City shall:

- **CON Implementation Measure 87**: Adopt and implement the Uniform Solar Code.
- **CON Implementation Measure 90**: Review development codes to assess energy conservation opportunities.
- **CON Implementation Measure 91**: Enforce State "energy budget standards" for new construction which standards establish maximum allowable use from depletable sources.

Water Supply

CON Goal 4 - Water conserved.

- **CON Objective 4.1**: 10% reduction in the amount of water for residential and commercial uses by the year 2001 and a three day emergency water supply in all residential areas.
  - **CON Policy 4.1.2 -** The City shall coordinate development to ensure adequate water supplies.
  - **CON Policy 4.1.3 -** The City shall encourage water conservation design measures in residential, commercial, and industrial development.
  - **CON Policy 4.1.4 -** The City shall promote the use of water efficient low flow fixtures.
  - **CON Policy 4.1.5 -** The City shall encourage the use of drought resistant landscaping.
  - **CON Policy 4.1.6 -** The City shall promote the use of reclaimed water that has had pathogens removed for appropriate uses such as landscape irrigation systems.

To implement these policies the City shall:

- **CON Implementation Measure 93**: Disseminate information to the community regarding methods and technologies that conserve the use of water.
- **CON Implementation Measure 95**: Work with appropriate agencies to maintain a leak detection program to eliminate water waste caused by leaking water lines and swimming pools.

- **CON Implementation Measure 96**: Work with appropriate agencies to monitor water usage to detect leaks based on historic use and to assess the effectiveness of water conservation programs.
- **CON Implementation Measure 98**: Explore alternate methods of providing water service, including establishing an independent water district or municipal water utility.

Solid Waste

CON Goal 5: Solid waste reduced and recycled.

- **CON Objective 5.1 -** 50% reduction in the amount of solid waste generated by the community and disposed of in landfills by the year 2000.
  - **CON Policy 5.1.1 -** The City shall reduce solid waste
  - **CON Policy 5.1.2 -** The City shall encourage recycling

  To implement these policies the City shall:
  - **CON Implementation Measure 101**: Work cooperatively with neighboring cities to reduce and possibly divert solid waste from landfills.
  - **CON Implementation Measure 102**: Disseminate information regarding recyclable materials and methods of reducing waste.
  - **CON Implementation Measure 103**: Promote the use of recycled goods through programs such as cooperative purchasing and use of recycled materials in City contracts like road construction.
  - **CON Implementation Measure 104**: Develop a program of commercial and residential curb-side recycling.

Circulation and Infrastructure Element

The City of Malibu General Plan's Circulation and Infrastructure Element addresses the circulation of people, goods, energy, water, sewage, and communications. Its purpose is to present a plan for ensuring that public transportation, services, and utilities are constantly available to permit orderly growth and promote public health, safety, and welfare. The Circulation and Infrastructure Element has the following goals, policies, and objectives related to utilities and service systems:

C Goal 2 - Environmentally sensitive, cost effective and safe service infrastructure.

- **C Objective 2.1**: Contamination and pollution from waste disposal reduced to the maximum extent practical by the year 2000.
  - **C Policy 2.1.1 -** The City shall reduce the consumption of nonrenewable resources.
  - **C Policy 2.1.2 -** The City shall protect the quality of surface and groundwater.

- **C Policy 2.1.3 -** The City shall minimize ecological damage and public health hazards from waste disposal.
- **C Policy 2.1.4 -** The City shall encourage utilization of innovative alternative methods of wastewater treatment.
- **C Policy 2.1.5 -** The City shall protect residents from the hazards associated with increases in the groundwater table.

To implement these policies the City shall:

- **C Implementation Measure 30**: Revise building and plumbing codes as necessary to incorporate innovative methods of protecting groundwater and disposing of solid waste and wastewater.
- **C Implementation Measure 31**: Adopt standards and programs to encourage on-site wastewater recycling.
- **C Implementation Measure 32**: Require on-site disposal systems to operate at their designed level of efficiency.
- **C Implementation Measure 33**: Require all current on-site waste disposal systems needing repair or renovation to meet all applicable state, county and municipal health codes.
- **C Implementation Measure 34**: Require all sewage and wastewater created on property to be processed on-site or by a neighborhood sewage treatment facility or in a cooperative system with neighboring properties.
- **C Implementation Measure 35**: Distribute information about the proper operation and maintenance of on-site disposal systems.

- **C Objective 2.2**: An adequate water supply for daily and emergency use by the year 2000.
  - **C Policy 2.2.1**: The City shall ensure adequate water storage for firefighting and other emergencies.

  To implement this policy the City shall:

  - **C Implementation Measure 36**: Identify Malibu's potable, imported and ground water supplies and sources.
  - **C Implementation Measure 37**: Work with appropriate agencies such as Water District 29 and the Los Angeles County Fire Department to increase water storage at strategic locations throughout the City as required to assure a seven-day emergency water supply.
  - **C Implementation Measure 38**: Develop standards and policies that will maximize the beneficial uses of reclaimed water including methods of greywater treatment and disposal.

5.15.1.2 EXISTING CONDITIONS

This section discusses the existing conditions related to utilities and service systems. The data are based in part on information from the City of Malibu's General Plan.

Water Supply

Water for the City of Malibu, including the active school uses on the Project Site, is provided by County Waterworks District No. 29 from the Metropolitan Water District of Southern California (MWD). MWD obtains its water from the State Water Project and the Colorado River. Wholesalers of this water in the Malibu/Santa Monica Mountains area include the Las Virgenes Municipal Water District and the West Basin Municipal Water District, which distribute to three retailers, including the Los Angeles County Waterworks District No. 29, Silvas Park Mutual Water Company, and Las Virgenes Metro Water District. Many of Malibu's water mains and tanks have been identified by the City and by Waterworks District No. 29 as severely undersized.

There are several public and private wells in the city; however, the use of wells as a source of potable water has steadily declined since 1965, when water became available through the MWD. Although the amount of water supplied by these wells is now considered insignificant, they are sources of inexpensive water to agricultural and other interests located away from piped water service (City of Malibu 1995).

Wastewater

The Civic Center Water Treatment Facility (CCWTF) is a centralized wastewater and recycled water treatment facility that treats wastewater from properties in the Malibu Civic Center area and provides recycled water to those properties. Phase One of the CCWFT was completed in October 2018, and Phase Two will expand the facility from 190,000 gallons per day to 350,000 gallons per day and construct a collection system and pump stations (City of Malibu n.d.). Most properties in Malibu, including the existing campus on the Project Site, are served by private on-site wastewater treatment and effluent disposal systems.

Septic Tanks

A septic tank is a buried, watertight container typically made of concrete, fiberglass, or polyethylene. It holds the wastewater long enough to allow solids to settle out (forming sludge) and oil and grease to float to the surface (as scum). In this anaerobic (without oxygen) environment, it also allows partial "primary" decomposition of the solid materials; these partially decomposed materials along with existing liquids form a middle "clear layer" of disposal effluent. Compartments and a T-shaped outlet in the septic tank prevent the sludge and scum from leaving the tank and traveling into the drain field area. Screens are also recommended to keep solids from entering the drain field. Newer tanks generally have risers with lids at the ground surface to allow easy location, inspection, pumping, and cleaning of the tank.

Most wastewater is treated on-site. Improperly maintained septic systems have caused alleged health and safety problems, but, with adequate area for leaching fields or regular disposal, can be safely operated in almost all areas of the city (City of Malibu 1995). On-site wastewater treatment systems can include simple containment and disposal systems or more complex systems that provide various levels of treatment. Ten wastewater

treatment systems exist on the Project Site. Each of these systems services different areas and facilities on the campuses. These wastewater systems consist of septic tanks, distribution boxes, leach fields, and seepage pits. A typical septic system consists of one septic tank connected to several seepage pits. The existing septic systems are in the following locations:

- **Septic System 1** is under the Lower Parking Lot (D).
- **Septic System 2** was a cesspool removed previously (no longer present).
- **Septic System 3** is adjacent to the current Auditorium and Building H.
- **Septic System 4** is directly south of the existing Auditorium.
- **Septic System 5** is near the current Building K.
- **Septic System 6** is under the existing basketball courts, east of Building J.
- **Septic System 7** is on the southwestern boundary of the Project Site.
- **Septic System 8** is to the west of Building K.
- **Septic System 9** is south of the existing JCES library.
- **Septic System 10** is under the existing JCES Building C but was disconnected and is no longer being used.
- **Septic System 11** is to the north of the existing Bus Barn.

Cesspools

A cesspool is the forerunner to the modern septic system. The cesspool is a vertical pit dug into the earth and lined with a porous cement or block or stone. The area outside the liner is filled with gravel. All the wastewater from the facility is routed to the cesspool. The solids fall to the bottom where they are partially digested by bacteria and microorganisms that occur there naturally. The effluent leaches out into the gravel and soil surrounding the pit.

Seepage Pits

A seepage pit is similar to a cesspool in construction, consisting of a large pit lined with concrete rings or porous masonry block to support the walls of the pit, and a surrounding bed of gravel. The difference is that only effluent that has come from a septic tank enters a seepage pit. The effluent has already been through the first stage of processing in the tank. Once it enters the seepage pit it is temporarily stored there until it gradually seeps through the walls and into the surrounding soil. A biomat forms in the bottom of the pit, and as the pit ages, the biomat grows thick, clogging the pores of the pit walls. Because of their construction, seepage pits are not as efficient at processing effluent as drain fields or soil absorption beds.

All septic and sewage treatment plants in Malibu accumulate wastewater and sludge, which eventually must be pumped out and disposed of off-site. Treated wastewater (depending on the degree of cleansing that it has undergone) may be recycled and used as irrigation water, water for toilets, and other uses. Sludge typically is taken to a regional wastewater treatment plant for disposal (such as those in the City and County of Los Angeles or the County of Ventura). Disposal is periodic and can be timed to coincide with periods of low flow to the treatment plants. Sludge disposal is paid for in fees that vary to compensate for impacts.

Stormwater Drainage

Watershed and Regional Drainage

A watershed is the geographic area draining into a river system, ocean, or other body of water through a single outlet and includes the receiving waters. Watersheds are usually bordered and separated from other watersheds by mountain ridges or other elevated areas. The Project Site is in the Santa Monica Bay hydrologic unit, Point Dume hydrologic area, and Zuma Canyon and Trancas Canyon subareas (numbers 404.36 and 404.37, respectively) (Caltrans 2021). Zuma Canyon Creek is less than 0.5 miles south of the Project Site. Zuma Creek is one of many north-south drainages originating in the Santa Monica Mountains, draining just east of Point Dume. From just north of Pacific Coast Highway, for several hundred meters, Zuma Creek is a riparian corridor. The mouth of Zuma Creek opens into a small estuary. Observed historical average annual precipitation in the area is about 16 inches per year (California Energy Commission 2021).

The Project Site is within the Santa Monica Bay Watershed Management Area (WMA), which encompasses 414 square miles. Its borders reach from the crest of the Santa Monica Mountains on the north and from the Ventura-Los Angeles County line to downtown Los Angeles. From there it extends south and west across the Los Angeles plain to include the area east of Ballona Creek and north of the Baldwin Hills. South of Ballona Creek, the natural drainage area is a narrow strip of wetlands between Playa del Rey and Palos Verdes. The WMA includes several watersheds, the two largest being Malibu Creek to the north (west) and Ballona Creek to the south. The Malibu Creek area contains mostly undeveloped mountain areas, large acreage residential properties, and many natural stream reaches, and Ballona Creek is predominantly channelized and highly developed with both residential and commercial properties (LARWQCB n.d.).

On-Site Drainage and Surface Water Bodies

Three potential jurisdictional features were mapped on the Project Site: Drainage 1, Drainage 2, and Basin (Exhibits 5 and 6 of the Jurisdictional Delineation Report in Appendix F). Drainage 1 makes up the unnamed blueline stream in the western part of the Project Site. This unnamed blueline stream flows along the western side of the Project Site and continues off-site to Pacific Coast Highway. Drainage 2 continues eastward from Drainage 1 toward the existing tennis courts. At the tennis courts, Drainage 2 continues northward through the undeveloped field on the northern side of the MMHS campus. The Basin is just north of the existing bus barn. See Exhibits 5 and 6 from the Jurisdictional Delineation Report (see Appendix F).

Drainage 1 contains riparian vegetation, which would have been denser prior to the 2019 Woolsey fire. The upstream end of Drainage 2 is visible on aerial imagery; however, its alignment is obscured as it crosses the field north of the campus baseball field. The concrete-lined portion of the channel is partially visible. Drainage 1 is mapped as a wetland. It is considered a Palustrine wetland with scrub-shrub vegetation that is temporarily flooded. A riverine feature crosses Via Cabrillo on the western side of the Project Site. Drainage 2 is not mapped. Drainage 1 corresponds to an Environmentally Sensitive Habitat Area (ESHA) (Psomas 2020), as described in Section 5.9, *Hydrology and Water Quality*. Drainage from most of the Project Site flows generally in a southward direction and to a network of storm drain systems and catch basins that outlet through the curb face to the adjacent Morning View Drive. A portion of the Project Site (Parking Lot A and Tennis Courts) drains north to northwest to a natural drainage mapped on the City of Malibu's LCP ESHA Map.

Electricity

Electricity is quantified using kilowatts (kW) and kilowatt-hours (kWh). A kW is a measure of 1,000 watts of electrical power and a kWh is a measure of electrical energy equivalent to a power consumption of 1,000 watts for 1 hour. The kWh is commonly used as a billing unit for energy delivered to consumers by electric utilities. According to the California Energy Commission's (CEC's) "Tracking Progress" regarding statewide energy demand, total electric energy usage in California was 279,402 gigawatt-hours (GWh) in 2019 (CEC 2021a). A gigawatt is equal to one billion (10^9) watts or 1,000 megawatts (1 megawatt = 1,000 kW).

The electricity supply for the City of Malibu is provided by Southern California Edison (SCE). Total electricity consumption in SCE's service area was 105,162 GWh in 2019 (CEC 2021a). Sources of electricity sold by SCE in 2019, the latest year for which data are available, were:

- 35 percent renewable, consisting mostly of solar and wind
- 8 percent large hydroelectric
- 16 percent natural gas
- 8 percent nuclear
- 33 percent unspecified sources, that is, not traceable to specific sources (SCE 2020)

Operation of the existing middle and high school consumes electricity for various purposes, including, but not limited to, heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; security and control center functions; lighting; and use of on-site equipment and appliances. Based on historical electricity consumption data, the existing MMHS consumed an average of 1,257,552 kWh annually. Existing electricity consumption for the Project Area is shown in Table 5.15-1, *Electricity Consumption*.

Table 5.15-1 Electricity Consumption

Land Use	Electricity (kWh/year)
Elementary School	307,623
Junior High School	818,529
Parking Lot	131,400
Total	**1,257,552**

Source: CalEEMod 2020.4. See Appendix D. Based on historical electricity rates in CalEEMod.
kWh = kilowatt-hour

Natural Gas

Gas is typically quantified using the "therm," which is a unit of heat energy equal to 100,000 British thermal units (BTU) and is the energy equivalent of burning 100 cubic feet of natural gas. The Southern California Gas Company (SoCalGas) provides natural gas to the Project Site. SoCalGas' service area spans much of the southern half of California, from Imperial County on the southeast to San Luis Obispo County on the northwest to part of Fresno County on the north to Riverside County and most of San Bernardino County on the east (CEC 2021b). Total natural gas supplies available to SoCalGas for years 2020 through 2022 are 3.175

billion cubic feet per day. Total natural gas consumption in SoCalGas' service area is forecast to be 2.103 billion cubic feet per day in 2035 (SoCalGas 2020).

The existing MMHS generates an average natural gas demand of 2,075,718 kilo–British thermal units (kBTU) per year, as shown in Table 5.15-2, *Natural Gas Consumption*.

Table 5.15-2 Natural Gas Consumption

Land Use	Natural Gas (kBTU/year)
Elementary School	567,008
Junior High School	1,508,710
Total	**2,075,718**

Source: CalEEMod 2020.4. See Appendix D. Based on historical natural gas consumption rates in CalEEMod.
kBTU = kilo-British thermal unit

5.15.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the Proposed Project would:

U-1 Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

U-2 Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.

U-3 Result in a determination by the wastewater treatment provider which 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.

U-4 Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

U-5 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

The IS/NOP, included as Appendix B to this DEIR, substantiates that impacts associated with the following thresholds would be less than significant; therefore, these impacts will not be further addressed in this DEIR:

- Threshold U-4
- Threshold U-5

5.15.3 Environmental Impacts

5.15.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.15-1: Existing and/or proposed water, wastewater, stormwater, electric, natural gas, and telecommunication facilities would be able to accommodate Project-generated utility demands. [Threshold U-1]

The Proposed Project would redevelop and modernize the entire campus (except the existing newer Buildings A/B and E and athletic fields to remain), which would require installation of the utility improvements necessary to serve the new buildings and facilities. All of these utility infrastructure improvements (specifically water, electrical, natural gas, telecommunications) would be developed internal to the Project Site during each phase of construction. Therefore, the environmental effects of these upgraded infrastructures are evaluated in each chapter of this DEIR and mitigation is required where necessary.

The Proposed Project includes development of a ground-mount photovoltaic (PV) solar array system with battery storage and energy control center. An approximately 422 KW PV system with antireflective coating would be installed on the sloping hillside to the south of the existing Lot A and the Main Sports Field and to the north/northwest of the new Middle School Building E (core classrooms building). A 500 KW/1,000 kWh battery storage system would be installed. The existing approximately 118 KW of PV located on the newly constructed Building A/B would connect with the larger system. The solar panel system, shown in Figure 3-10, *Solar Panel System,* would be installed as part of Phase 2. Impacts of this solar facility are evaluated in this DEIR and mitigated as necessary.

Following full buildout of the Proposed Project, the school would operate under the same staffing and enrollment capacity as under current conditions. Larger off-site improvements to connecting facilities would not be necessary. Additionally, the new structures would be developed with modernized building materials and fixtures meeting current code requirements, resulting in a more efficient use of utilities. Impacts associated with the replacement of the existing on-site wastewater treatment systems (the 10 septic systems) are addressed in Section 5.6, *Geology and Soils*, (specifically Impact 5.6-4). Impacts associated with stormwater drainage are discussed in Section 5.9, *Hydrology and Water Quality* (specifically Impact 5.9-4). Therefore, the Proposed Project would result in **less than significant impacts** regarding the relocation or construction of new or expanded utilities.

Impact 5.15-2: Available water supplies are sufficient to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple-dry years. [Threshold U-2]

The Proposed Project would result in the construction of 7 new buildings in addition to the existing Buildings A, B, and E, for a total of 10 buildings on the Project Site, including 47 classrooms and 12 labs and a total of 222,425 square feet of building space. The Proposed Project would modernize the campus facilities and retain the total existing capacity of 1,200 students (750 high school students and 450 middle school students).

As shown in Table 5.15-3, Project Site Existing Water Use, the existing estimated water usage for the Project Site is approximately 30,227 gallons per day (GPD), including 3,325 GPD for indoor water use and 26,902 GPD for outdoor water use (SMMUSD 2021).

Table 5.15-3 Project Site Existing Water Use

	Existing Conditions		
	2019 HCF[1]	2019 GPD[2]	Percentage of Water Use
Indoor Water Use	1,622.50	3,325	11
Outdoor Water Use	13,127.50	26,902	89
Total Water Use	**14,750**	**30,227**	**100**

[1] HCF = Hundred Cubic Feet
[2] GPD = Gallons Per Day
Source: SMMUSD 2021.

The Proposed Project would not increase the student or staff population within the proposed high school or middle school; thus, there would be no net change in indoor water supply as a result of the Proposed Project. Additionally, the majority of the Project Site that would require irrigation, including the sports fields and landscaped areas throughout the campus, would remain unchanged; thus, there would be no net change in outdoor water supply.

The Proposed Project would be designed using applicable green building practices, including those of the most current Building Energy Efficiency Standards (Title 24, CCR, Part 6) and California Green Building Standards Code (CALGreen; Title 24, CCR, Part 11). The Building Energy Efficiency Standards contain water efficiency requirements for newly constructed buildings, additions to existing buildings, and alterations to existing buildings.

Therefore, the Project Site would have sufficient water supplies available to serve the students, staff, and MMHS campus and reasonably foreseeable future development during normal, dry, and multiple-dry years; and impacts to available water supplies would be **less than significant**.

Impact 5.15-3: Project-generated wastewater could be adequately treated by the wastewater service provider for the Proposed Project. [Threshold U-3]

The Proposed Project would include adequate infrastructure to serve the Project Site, including the reconfiguration of existing septic systems. The Project Site currently has 10 onsite waste treatment systems on the former JCES and MMHS campuses. As shown in Figure 5.15-1, *Wastewater Phasing Plan*, the Proposed Project would result in 7 total septic systems. The Proposed Project would remove septic systems 6 through 11 and would add five septic systems that would be developed under the Proposed Project in the following locations:

- **Septic System 1.1** would be under the proposed Parking Lot B (currently Parking Lot D). The tank and seepage pits would remain as is but total flow to this system would be modified.
- **Septic System 2.1** would be near Building D and serve Building D. The tank and seepage pits would be new and would replace the old system 5.0, which would be removed.

- **Septic System 3.1** would be to the west of Building A/B. The tank and seepage pits would remain as is but total flow to this system would be modified.
- **Septic System 4.1** would be under Parking Lot C and serve the Theatre and Performing Arts Buildings. The tank and seepage pits would be new and would replace old system 4.0, which would be removed.
- **Septic System 5.1** would be adjacent to the Malibu Equestrian Park and would serve the bus barn. The tank and seepage pits would be new and would replace old system 11.0, which would be removed.
- **Septic System 6.1** would be near the Malibu Middle School Hard Courts and serve Buildings J, L, and M. The tank and seepage pits would be new and would replace the old system 6.0, which would be removed.
- **Septic System 7.1** would be east of the Malibu High School Building (building C) and serve Malibu High School. The tank and seepage pits would be new and would replace old systems 7.0, 8.0, 9.0, and 10.0, which would be removed.

Proposed septic systems would include an appropriately sized, two-compartment, fiberglass septic tank. The location of the septic tanks and associated leach fields would be reviewed as part of each phase. However, the proposed septic systems would be designed and sited to avoid impacts to the ESHA, and all septic systems would be more than 100 feet from the ESHA.

Decommissioning and modifications of the existing septic systems and the addition of the replacement infrastructure would not be anticipated to disrupt service on the Project Site. Modifications to the wastewater and drainage system would have the capacity to adequately serve the Project Site during all phases of the Proposed Project, and Project-generated wastewater would be adequately treated. Therefore, impacts would be **less than significant**.

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UTILITIES AND SERVICE SYSTEMS

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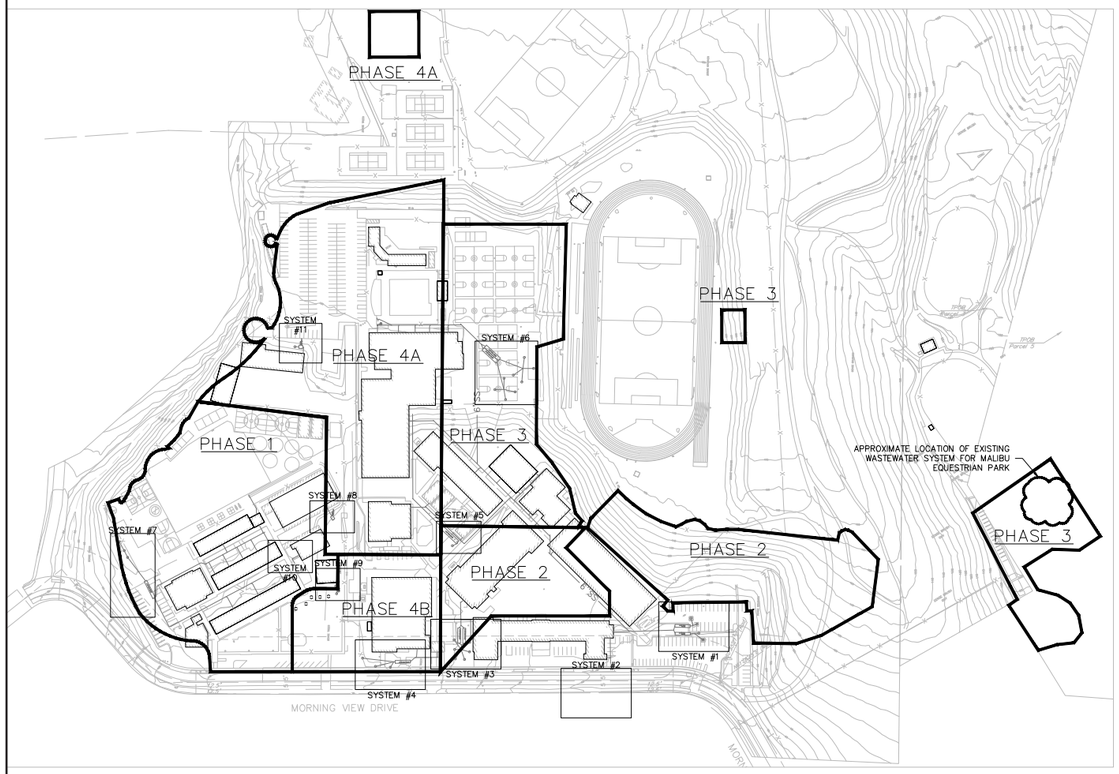
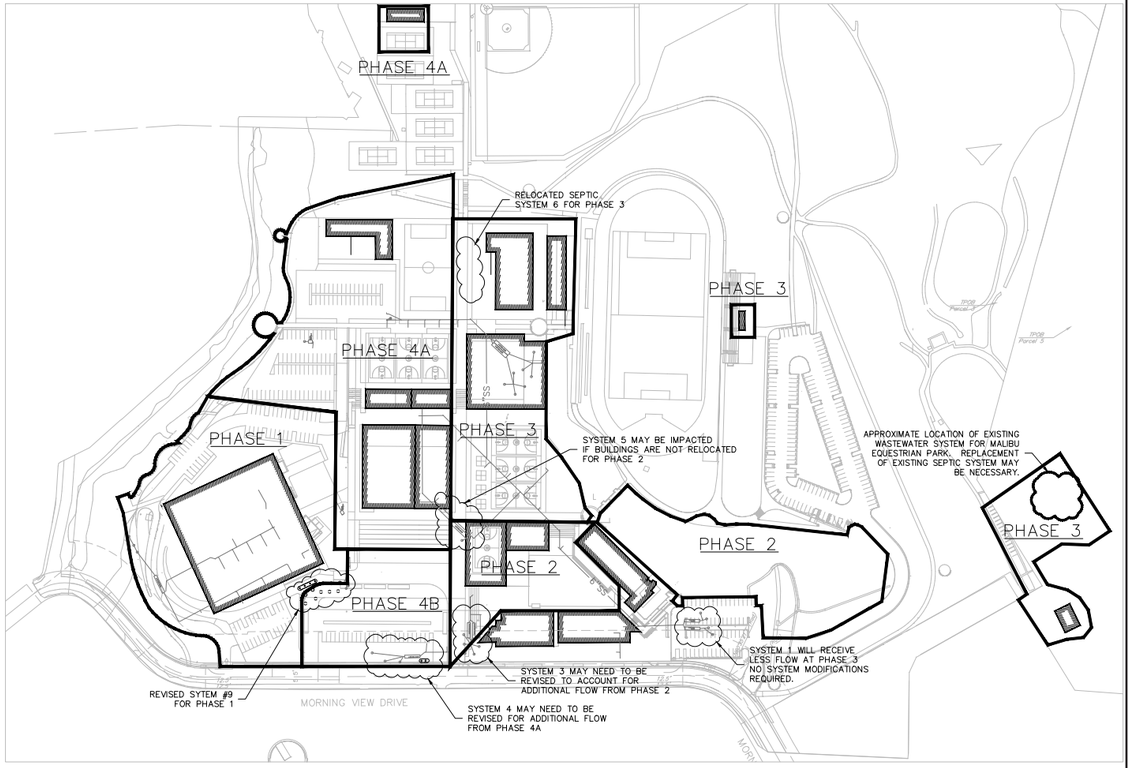
Figure 5.15-1 Wastewater Phasing Plan



Existing Site Plan with Future Phases Overlay



Proposed Site Plan with Phases Overlay with Existing Wastewater Infrastructure

MALIBU HS AND MS MASTER PLAN REORGANIZED SCHOOL CAMPUS BUILDING LOCATIONS

○PIT X–X–X	SEEPAGE PIT TO BE USED AS PRIMARY DISPOSAL
◎PIT X–X–X	SEEPAGE PIT TO BE USED AS BACKUP DISPOSAL
⊙	CESSPOOL/SEEPAGE PIT TO BE ABANDONED
○MW–X	MONITORING WELL PER GEOLOGY REPORTS

0 300
Scale (Feet)

Source: AHSIRT Engineering, Inc., 2021

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5.15.4 Mitigation Measures

No potentially significant impacts have been identified, and no mitigation measures are required.

5.15.5 Level of Significance After Mitigation

No mitigation measures have been identified, and impacts are **less than significant**.

5.15.6 Cumulative Impacts

As previously mentioned, the Proposed Project's potable water use and fire water lines would connect to an existing public water main on Morning View Drive. Los Angeles County Waterworks District No. 29 provides potable water to the City of Malibu, including the Project Site. The Proposed Project does not receive its potable water needs from groundwater resources and would not substantially increase water demand. The Proposed Project would be designed using applicable green building practices, which include water-efficiency requirements for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. Thus, the Proposed Project would not generate a substantial new water demand, and the City would be able to meet the water demands of the Proposed Project in addition to existing and cumulative demands. Therefore, the Proposed Project would not result in a significant impact to water supplies and treatment facilities, individually or cumulatively.

5.15.7 References

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5.16 WILDFIRE

This section of the Draft Environmental Impact Report (DEIR) evaluates the Malibu Middle and High School (MMHS) Campus Specific Plan Project's (Proposed Project) potential impacts related to wildfire. Specifically, the analysis describes the risk of wildfire and wildfire-related hazards at the Project Site as well as the potential for the Proposed Project to increase the risk of wildfire and wildfire-related hazards in the area. The analysis in this section refers to Fire Hazard Severity Zone (FHSZ) maps published by the California Department of Forestry and Fire Protection (CAL FIRE). The analysis in this section is based in part on the following technical report:

- *Geotechnical Exploration Malibu Middle & High School Campus Plan Phase I New High School Core Project 30237 Morning View Drive, City Of Malibu, California*, Leighton Consulting, Inc., November 20, 2020. Revised January 15, 2021.

A complete copy of this technical report is provided in Appendix H of this DEIR.

One comment letter from the County of Los Angeles Fire Department (LACoFD), Land Development Unit, was received in response to the Initial Study/Notice of Preparation (IS/NOP) circulated for the Proposed Project. The comment regards the Proposed Project's compliance with all applicable codes and ordinances for construction, including emergency access to the Project Site and buildings. The comment also addresses the requirement to prepare a Fuel Modification Plan due to the Project Site being within an FHSZ. Several comment letters were received from nearby residents regarding potential flooding due the Woolsey Fire's effects on the hillsides. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.16.1 Environmental Setting

5.16.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to wildfire that are applicable to the Proposed Project are summarized below.

Federal

National Cohesive Wildland Fire Management Strategy

The U.S. Forest Service (USFS), in coordination with other federal, tribal, state, and local partners/agencies, developed the National Cohesive Wildland Fire Management Strategy (National Strategy), which has three key components: resilient landscapes, fire-adapted communities, and safe and effective wildfire response.

Resilient landscapes address the need for sustainable and resistant landscapes, specific to a local region's environment, to aid in recovery from wildfires. In the National Strategy (April 2014), "landscape classes" are identified to help inform potential management options and/or policies to maintain fire-prone landscaped areas. Fire-adapted communities accounts for a community's ability to prepare for, respond to, and recover from a wildfire. Safe and effective wildfire response addresses wildfire response preparedness while

emphasizing structural protection and wildfire prevention. The National Strategy provides various actions and activities that can be implemented at the national, regional, and local levels to reduce wildfire threats to landscapes, communities, the public, and emergency responders.

State

California Department of Forestry and Fire Protection

CAL FIRE is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal supports the CAL FIRE mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education. The State Fire Marshal provides for fire prevention by enforcing fire-related laws in state-owned or -operated buildings, investigating arson fires in California, licensing those who inspect and service fire protection systems, approving fireworks as safe and sane for use in California, regulating the use of chemical flame retardants, evaluating building materials against fire safety standards, regulating hazardous liquid pipelines, and tracking incident statistics for local and state government emergency response agencies.

The Board of Forestry and Fire Protection (Forestry Board) is a government-appointed body within CAL FIRE. It is responsible for developing the general forest policy of the state, determining the guidance policies of CAL FIRE, and representing the State's interest in federal forest land in California. Together, the Forestry Board and CAL FIRE work to carry out the California Legislature's mandate to protect and enhance the state's unique forest and wildland resources.

The Forestry Board is charged with protecting all wildland forest resources in California that are not under federal jurisdiction. These resources include major commercial and noncommercial stands of timber, areas reserved for parks and recreation, woodlands, brush-range watersheds, and all private and state lands that contribute to California's forest resource wealth.

Fire Hazard Severity Zones and Responsibility Areas

CAL FIRE publishes maps recommending fire hazard severity zones for every California county. The maps identify lands within one of three management areas: local responsibility area (LRA), state responsibility area (SRA), or federal responsibility area (FRA). A single agency has direct responsibility in each are: in LRAs, local fire departments or fire protection districts are responsible; in SRAs, CAL FIRE is responsible; in FRAs, federal agencies such as the USFS, National Park Service, or Bureau of Land Management are responsible. The Project Site is in an LRA, and LACoFD has responsibility. Also, the site is about 0.60 mile from an FRA (Santa Monica Mountains) and 1.5 miles from an SRA (CAL FIRE 2017).

CAL FIRE uses FHSZs to classify the anticipated fire-related hazard risks within the three management areas. The classifications include moderate, high, and very high. Within an LRA, CAL FIRE designates lands as being within a very high fire hazard severity zone (VHFHSZ) or within a non-VHFHSZ. The Project Site is in a LRA VHFHSZ. It is about 1.5 miles from an SRA VHFHSZ.

Classification of a zone as moderate, high, or very high fire hazard is based on a combination of how a fire will behave and the probability of flames and embers threatening buildings. Each area of the map gets a score for

flame length, embers, and the likelihood of the area burning. Scores are averaged over the zone area, and final classification (moderate, high, and very high) is based on the average score (CAL FIRE 2007a).

Local Responsibility Area Maps

Government Code §§ 51175 to 51189 direct CAL FIRE to identify VHFHSZs within LRAs. In late 2005, the California Building Standards Commission adopted California Building Code Chapter 7A, which became effective in 2008 and requires new buildings in VHFHSZs to use ignition-resistant construction methods and materials. These new codes include provisions to improve the ignition resistance of buildings, especially from firebrands. VHFHSZs are used by building officials for new building permits in LRAs. The zones are also used to identify property whose owners must comply with natural hazards disclosure requirements at the time of property sale and 100-foot defensible space clearance requirements.

Strategic Fire Plan for California

In January 2019, CAL FIRE released the 2019 California Strategic Fire Plan (Strategic Plan). The Strategic Plan outlines CAL FIRE's mission, vision, and values and focuses on four primary goals: (1) improve CAL FIRE's core capabilities, (2) enhance internal operations, (3) ensure health and safety, and (4) build an engaged, motivated, and innovative workforce. Goal 1 includes emergency response, natural resources protection, prevention, and regulatory oversight. Goal 2 includes continuous review and evaluation of internal core operations to find ways to streamline and maximize CAL FIRE's effectiveness. Goal 3 addresses the continued health and safety of CAL FIRE's workforce. Goal 4 addresses continued recruitment, training, and retention of the CAL FIRE workforce. Also included in the Strategic Plan are objectives to meet each of the four goals as well as how to measure successful implementation of the Strategic Plan.

California Office of Emergency Services

The California Emergency Management Agency was incorporated into the Governor's Office on January 1, 2009, by Assembly Bill 38 (Nava) and merged the duties, powers, purposes, and responsibilities of the Governor's Office of Emergency Services (Cal OES) with those of the Governor's Office of Homeland Security. Cal OES is responsible for the coordination of overall state agency response to major disasters in support of local government. The agency is responsible for ensuring the state's readiness to respond to and recover from all hazards—natural, man-made, emergencies, and disasters—and for assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts.

The Cal OES Fire and Rescue Division coordinates statewide response of fire and rescue mutual aid resources to all types of emergencies, including hazardous materials. The Operations section under the Fire and Rescue Division coordinates the California Fire and Rescue Mutual Aid System, which coordinates resources to respond to major fires, earthquakes, tsunamis, hazardous materials, and other disasters.

California Building Code

The State of California provides a minimum standard for building design through Title 24 of the California Code of Regulations, commonly referred to as the "California Building Code" (CBC). The CBC is updated every three years, and the current 2019 CBC went into effect in January 2020. Commercial and residential

buildings are plan checked by city and county building officials for compliance with the CBC. Typical fire safety requirements of the CBC include: the installation of sprinklers in all high-rise buildings; the establishment of fire-resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

The California Fire Code (CFC), Chapter 9 of CCR Title 24, was created by the California Building Standards Commission and based on the International Fire Code with California amendments. The CFC is updated every three years, and the current 2016 CFC went into effect January 1, 2017. It is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions under specific amendment rules prescribed by the State Building Standards Commission. The CFC regulates building standards in the CBC, fire department access, fire protection systems and devices, fire and explosion hazards safety, hazardous materials storage and use, and standards for building inspection. The LACoFD provides fire protection services for the city of Malibu and therefore implements and enforces the CFC at the Project Site.

California Public Resources Code

California Public Resources Code (PRC) §§ 4291 et seq. require removal of brush, flammable vegetation, or combustible growth within 100 feet of buildings on or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land covered in flammable materials.

PRC § 4290 requires the Forestry Board to adopt regulations implementing minimum fire safety standards for defensible space that would be applicable to lands in SRAs and lands in VHFHSZs.

California Code of Regulations, Title 5, School Facilities Construction

Titles 5 of the CCR identifies specific regulations related to the construction of school facilities in California. These regulations include (but are not limited to) standards for school site selection (§ 14010) and Standards for Development of Plans for the Design and Construction of School Facilities (§ 14030) (California Department of Education 2020).

Regional

County of Los Angeles Fire Department Strategic Fire Plan

Though the Project Site is not in unincorporated Los Angeles County, it is served by the LACoFD and near unincorporated areas. Los Angeles County developed the Strategic Fire Plan to reduce the threats to life and property from future wildfire (Los Angeles County 2018). The plan uses the California Fire Plan as the primary wildland fire protection plan. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis. The goals of the strategic fire plan are:

- Analyze the potential of wildfire threats to communities at the battalion level within and adjacent to the wildland-urban interface.
- Prioritize within each battalion where hazardous fuel reduction projects can make the largest impact to protection of life, property, and natural resources.
- Identify, categorize, and prioritize through a detailed assessment the values and assets at risk at the battalion level.
- Establish and prioritize which battalions have the highest wildfire threat potential in regard to values and assets.
- Develop battalion specific maps identifying prioritized values and assets and at-risk communities.
- Develop battalion specific strategies and tactics within our own strategic fire plan.
- Determine large scale fire prevention strategies which parallel the County's land use planning strategies.
- Continue to reach out and assist with communities at risk to establish local Fire Safe Councils and establish appropriate defensible space.
- Continue to work with communities at risk to develop Community Wildfire Protection Plans. (Los Angeles County 2018)

Los Angeles County General Plan

Because the Project Site is served by the LACoFD, the following goals and policies in the Safety Element (Fire Hazards and Emergency Response) are relevant to the Proposed Project (Los Angeles County 2015):

Goal S 3: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to fire hazards.

- **Policy S 3.4:** Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire-resistant building materials, vegetation management, fuel modification and other fire hazard reduction programs.
- **Policy S 3.5:** Encourage the use of low-volume and well-maintained vegetation that is compatible with the area's natural vegetative habitats.
- **Policy S 3.9:** Adopt by reference the County of Los Angeles Fire Department Strategic Fire Plan, as amended.

Goal S 4: Effective County emergency response management capabilities.

- **Policy S 4.1:** Ensure that residents are protected from the public health consequences of natural or man-made disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information.
- **Policy S 4.2:** Support County emergency providers in reaching their response time goals.
- **Policy S 4.3:** Coordinate with other County and public agencies, such as transportation agencies, and health care providers on emergency planning and response activities, and evacuation planning.
- **Policy S 4.5:** Ensure that there are adequate resources, such as sheriff and fire services, for emergency response.
- **Policy S 4.6:** Ensure that essential public facilities are maintained during natural disasters, such as flooding (Los Angeles County 2015).

Los Angeles County Code

Because the LACoFD serves the Project Site, the Los Angeles County Code directives to minimize adverse impacts associated with wildfires in the County are relevant to the Proposed Project. These directives are in:

- Title 20, Utilities, § 20.16.060
- Title 21, Subdivisions, Chapter 21.24, Part 1
- Title 21, Subdivisions, § 21.24.220
- Title 21, Subdivisions, § 21.44.250
- Title 26, Building, Chapter 7A
- Title 32, Fire, § 325
- Title 32, Fire, § 328.10
- Title 32, Fire, § 4907.1
- Title 32, Fire, §§ 4908, 1117.2.1

Local

City of Malibu Local Coastal Program

The City of Malibu is within the California coastal zone, and all developments are subject to the regulations of the City's Local Coastal Program (LCP). It was certified by the California Coastal Commission (CCC) in 2002 and grants the City authority to review and approve coastal development permits (CDP) at the local level. The LCP includes a Land Use Plan (LUP) to regulate land use and a Local Implementation Plan (LIP) for zoning. Amendments to certified LUPs and LIPs only become effective after approval by the CCC. Development within the coastal zone may not commence until a CDP has been issued by either the CCC or a local government that has a CCC-certified LCP.

Local Coastal Program's Local Implementation Plan

Chapter 9: Hazards

Chapter 9, Section 9.4, Hazards, of the City of Malibu LIP includes development standards for fire and wildfire safety, and new developments must be designed to minimize impacts related to fire. Development standards include, but are not limited to, adherence to mitigation recommendations as part of site-specific geotechnical studies, slope stabilization, limited alterations of rivers and streams, fuel modification and brush clearance techniques in compliance with applicable City and County fire safety requirements, use of fire-retardant and native plant species in compliance with the requirements of Section 3.12 of Malibu LIP, adequate emergency access, and adequate fire-flow water supply.

Malibu Municipal Code

City of Malibu Adoption of Fire Code

The City of Malibu adopted Title 32, Fire Code, of the Los Angeles County Code, and the 2019 edition of the CFC as the fire code of the city. In the event of any conflict between provisions of the 2019 CFC, Title 32 of the Los Angeles County Code, or any amendment to the fire code in the Malibu Municipal Code, the provision in the municipal code shall control.

City of Malibu General Plan

The City's General Plan is primarily a policy document that sets goals concerning the community and gives direction to growth and development. In addition, it outlines the programs that were developed to accomplish the goals and policies of the General Plan.

Chapter 5. Safety and Health Element

The Safety and Health Element creates a cohesive guide consisting of specific policy-oriented implementation measures. The intention is to reduce the potential for loss of life, injuries, damage to property, and social and economic dislocation resulting from major hazards throughout the community. The Safety and Health Element has the following goals, policies, and objectives related to wildfire:

S Policy 1.1.2: The City shall minimize the risk of loss from fire.

- **S Implementation Measure 1:** Develop a master plan of fire prevention and control identifying hazards, assessing acceptable levels of cost and risk and determining protection programs.
- **S Implementation Measure 2:** Work with other agencies to ensure effective and efficient fire suppression, prevention and rescue services.
- **S Implementation Measure 4:** Establish programs and guidelines for fire-safe landscaping including buffers comprised of fire resistant vegetation between residential areas and open space areas and encourage use of fire-safe landscaping principles which emphasize plant species with low fuel volumes.

- **S Implementation Measure 5**: Work with the Los Angeles County Fire Department to adopt a program for controlled burning of combustible vegetation, based on the recommendations of the responsible forestry and fire-protection official.

- **S Implementation Measure 6:** Work with the Los Angeles County Fire Department to enforce code requirements for flammable brush clearance, and reduction of flammable vegetation, including both native plants and ornamental landscaping.

- **S Implementation Measure 7:** Work with appropriate agencies to assure sufficient stored water and provide non-monetary incentives for on-site or area-wide shared storage water suitable for firefighting equal to one gallon for each square foot of structural floor area for all new development.

- **S Implementation Measure 9:** Create a major streets and routes plan which includes streets available as wildfire escape routes.

- **S Implementation Measure 10:** Require all new and remodel structures to have Class A fire-retardant roofing.

- **S Implementation Measure 11:** Develop guidelines and standards for all new and remodel structures to utilize fire-resistant building materials and designs, and, if feasible, to be sited to minimize fire hazards.

- **S Implementation Measure 12:** Provide South Coast Air Quality Management District regional wind patterns maps to homeowners, architects and contractors to help them plan development siting and design that minimizes fire hazards.

Malibu Community Wildfire Protection Plan

In June 2019, the City was awarded a $100,000 CAL FIRE grant for the development of a community wildfire protection plan (CWPP), which identifies and prioritizes areas for hazardous fuel reduction treatments. The CWPP outlines an action plan designed to protect at-risk communities and essential infrastructure from wildfire and makes recommendations to reduce structural ignitability throughout the community. The City's draft CWPP was presented during a public on meeting on March 10, 2021.

5.16.1.2 EXISTING CONDITIONS

Wildfire Types, Causes, and Behavior

Types of Wildfires

There are three basic types of wildland fires (NPS 2017):

- **Crown fires** burn trees to their tops; these are the most intense and dangerous wildland fires.
- **Surface fires** burn surface litter and duff. These are the easiest fires to extinguish and cause the least damage to the forest. Brush and small trees enable surface fires to reach treetops and are thus referred to as ladder fuels.

- **Ground fires** occur underground in deep accumulations of dead vegetation. These fires move very slowly but can be difficult to extinguish.

Wildfires burn in many types of vegetation—forest, woodland, scrub (including chaparral, sage scrub, and desert scrub), and grassland. Many species of native California plants are adapted to fire. Chaparral shrubs recover from fire in two ways: 1) woody root crowns or burls below the soil surface survive a fire and resprout; and 2) shrubs (various species of manzanita and ceanothus) produce seeds requiring intense heat from a fire to germinate (National Forest Foundation 2017). Many species of conifers have seed cones that require fire to open. During 2019, wildfire firefighting agencies responded to 7,148 fires that burned 277,285 acres (CAL FIRE 2019). During 2020, wildfire firefighting agencies responded to 9,917 fires that burned 4,257,863 acres (CAL FIRE 2020).

Wildfire Causes

Although the term wildfire suggests natural origins, a 2017 study that evaluated 1.5 million wildfires in the United States between 1992 and 2012 found that humans were responsible for igniting 84 percent of wildfires, accounting for 44 percent of acreage burned (Balch et al. 2017). The three most common types of human-caused wildfires are debris burning (logging slash, farm fields, trash, etc.), arson, and equipment use (NPS 2018). Lightning is a major natural cause of wildfire in the United States (Balch et al. 2017).

Though wildfires are a natural part of California's landscape, the fire season in California and across the West is starting earlier and ending later each year. Climate change is considered a key driver of this trend. Warmer spring and summer temperatures, reduced snowpack, and earlier spring snowmelt create longer and more intense dry seasons that increase moisture stress on vegetation and make forests more susceptible to severe wildfire. The length of fire season is estimated to have increased by 75 days across the Sierra and seems to correspond with an increase in the extent of forest fires across the state (CAL FIRE 2021).

Wildfire Behavior and Effects

Many factors affect how a wildfire burns, how fast it moves, and how difficult it is to control. The three main factors that affect wildfire behavior are weather, topography, and fuels.

Weather

Weather includes wind, temperature, cloudiness, moisture, and air pressure. High temperature and low humidity cause vegetation to dry and wildfire to burn rapidly. Wind not only moves wildfires across landscapes, but also supplies oxygen that can cause fires to grow swiftly. Wind also can blow embers for miles, igniting new spot fires. Rain and high humidity can slow or extinguish fires, and storms can cause fire activity to increase or become completely predictable.

Topography

Topography refers to the physical features of an area, including slope and aspect (the direction it faces). The highest wind velocities are associated with downslope, canyon, and Santa Ana winds. The direction a slope faces determines how much radiated heat it will receive from the sun. Slopes facing south to southwest will receive the most solar radiation. As a result, such slopes are warmer than slopes facing a northerly direction. The

warmer slope results in lower relative humidity, higher temperatures, and rapid loss of moisture. The fuel will tend to be dryer and to ignite and burn readily. In addition, the period that fires will ignite, and burn will also be longer on south-facing slopes (National Wildfire Coordinating Group 2020).

Fuels

Fuels are vegetation and structures. Their characteristics have a great effect on wildfire behavior. Large, dense trees burn for hours and generate a lot of heat. Dried grasses, on the other hand, produce a flashy fire that burns quickly and does not generate much heat.

Secondary Effects

Secondary effects of wildfire include postfire debris flows and air pollution due to smoke. The following sections describe the hazardous conditions created by these secondary wildfire effects.

Debris Flows

Postfire landslide hazards include fast-moving, highly destructive debris flows that can happen immediately after wildfires in response to high intensity rainfall or are generated over longer periods by root decay and loss of soil strength. Postfire debris flows are particularly hazardous because they can occur with little warning, sweep away objects in their paths, strip vegetation, block drainage ways, damage structures, and endanger human life. Fires increase the potential for debris flows in two ways:

- Fires can bake soil into a hard crust that repels water.
- Fires destroy vegetation that would slow and absorb rainfall and whose roots would help stabilize soil. (USGS 2018)

Postfire debris flows are most common in the two years after a fire, usually triggered by heavy rainfall. It takes much less rainfall to trigger debris flows from burned areas than from unburned areas. In southern California, as little as 0.3 inch of rainfall in 30 minutes has triggered debris flows, and any storm that has intensities greater than about 0.4 inch per hour can produce debris flows (USGS 2005). Burnt vegetation and soil on slopes more than doubles the rate that water will run off (CGS 2020).

It is generally accepted that debris flows most commonly occur on slopes with gradients from 26 to 45 degrees The potential for debris flow depends on soil type, water content, and degree of vegetation in the source zone (Leighton 2021).

Air Pollution

Smoke is made up of a complex mixture of gases and fine particles. The biggest health threat from smoke is from fine particles, which can penetrate the lungs and can cause a range of health problems, from burning eyes and a runny nose to aggravated chronic heart and lung diseases. Exposure to particulate pollution is even linked to premature death. Some populations are more sensitive than others to smoke: for instance, people with heart or lung diseases, the elderly, children, people with diabetes, and pregnant women (Airnow 2021).

Fire Environment of the Proposed Project

Fire environments are dynamic systems and include many types of environmental factors and site characteristics. Fires can occur in any environment where conditions are conducive to ignition and fire movement. Areas of naturally vegetated open space typically have conditions that could be favorable to wildfire spread. As described above, major components of fire environment include weather, topography, and fuels. The state of each of these components and their interactions with each other determine the potential characteristics and behavior of a fire at any given moment. Wildland fire may transition to urban fire if structures are receptive to ignition. Understanding of the existing wildland vegetation and urban fuel conditions on and adjacent to the site is necessary to understand the potential for fire on-site and within the project vicinity.

CAL FIRE designates FHSZs based on factors such as fuel, slope, and fire weather to identify the degree of fire hazard throughout California. Though FHSZs do not predict when or where a wildfire will occur, they do identify areas where wildfire hazards could be more severe and are, therefore, of greater concern. The Project Site is not within a State-designated SRA; however, the Project Site is in a VHFHSZ in an LRA, as shown in Figure 5.16-1, *Fire Hazard Severity Zones* (CAL FIRE 2011).

5. Environmental Analysis
WILDFIRE

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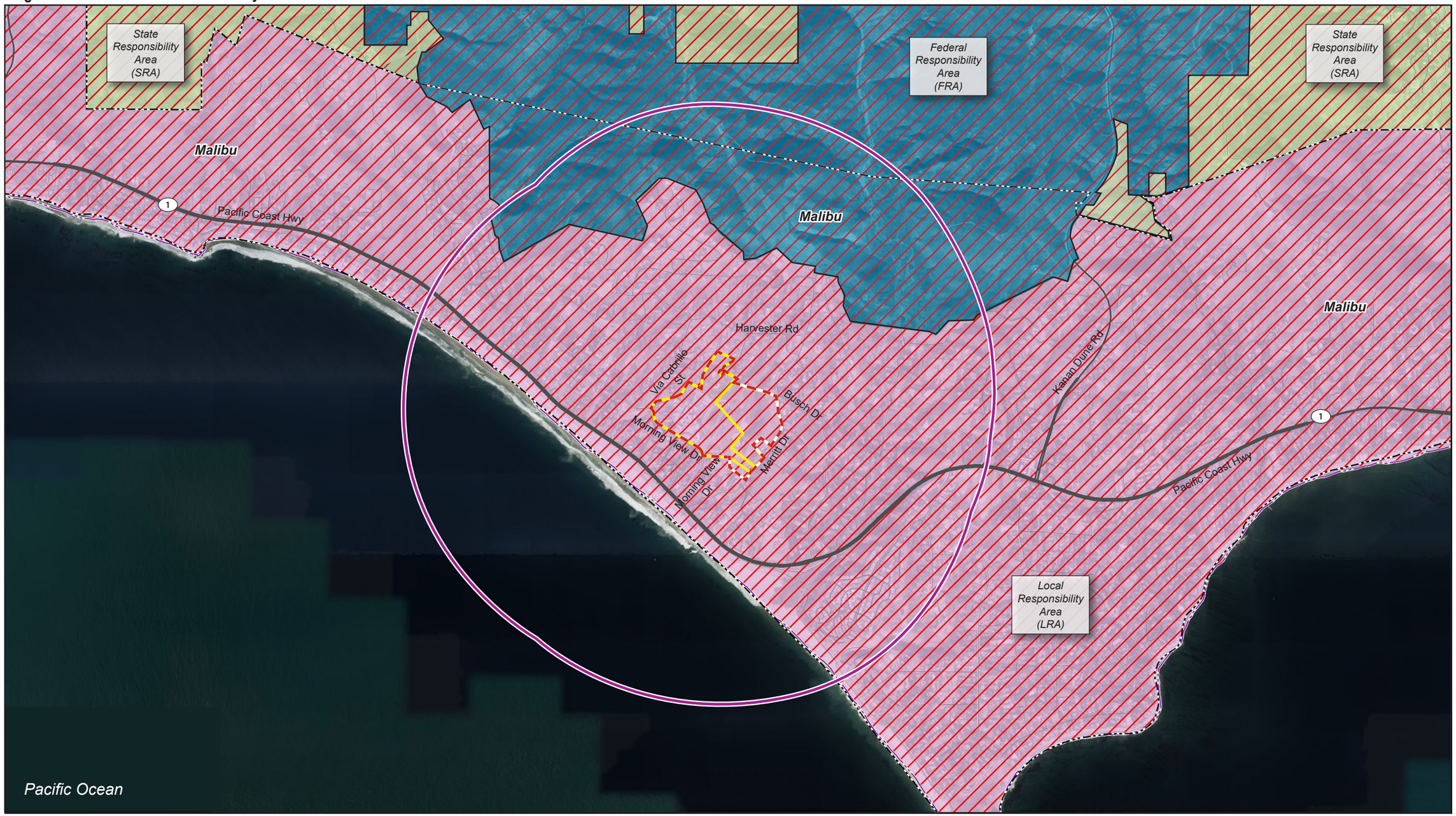
Figure 5.16-1 Fire Hazard Severity Zones



Source: CalFire, 2021

5. Environmental Analysis
WILDFIRE

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Weather

As discussed in Section 5.2, *Air Quality,* of this DEIR, wind patterns across the southern coastal region are characterized by westerly or southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season. Suring the winter and fall months, surface high-pressure systems over the South Coast Air Basin (SoCAB) combined with other meteorological conditions can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions area reestablished.

The mountain ranges to the east inhibit the eastward transport and diffusion of pollutants. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005)

Topography

The Project Site is currently developed with the existing MMHS, the former JCES, and the Malibu Equestrian Park. The Project Site contains classroom buildings, a cafeteria building, a theatre, two gymnasiums, and an aquatic center as well as surface parking lots, paved areas, and regularly maintained landscape and turf areas. The MMHS campus is set amid rolling hills, and its buildings and athletic fields are terraced into the hillside. The Project Site is on the southern flanks of the western portion of the Santa Monica Mountains. The campus consists of several near-level pad areas with generally ascending slopes to the north and descending slopes to the Pacific Coast Highway (PCH) to the south. The majority of the Project Site, including all areas with current development, is situated on slopes of between 0 and 20 percent, at a minimum of 80 feet above mean sea level. The perimeter of the Project Site, including the area surrounding the football field and areas between building pads, slopes increase to between 40 to 100 percent, reaching up to 170 feet above mean sea level. The area surrounding the Project Site is characterized by hills and mountains (wildland-urban interface). The area north of the Project Site is open space/Santa Monica Mountains, and single-family residences are to the north and south of the Project Site.

On-Site Vegetation/Fuels

There is very little vegetation within the Project Site, consisting primarily of synthetic turf grass, natural grass, ivy, brush, shrubs, and scattered ornamental and native trees. There are some areas with coastal sage scrub (CSS), disturbed CSS, and disturbed coyote brush (CB). Portions of the existing developed campus, such as the bus barn, play field, and surface parking, are within the 100-foot buffer of an environmentally sensitive habitat area (ESHA) that contains riparian habitat (see Figures 3-13a, b, and c, *ESHA Restoration Plan*). The streambed extends for approximately 1,088 feet and varies between approximately 24 and 85 feet wide. The stream course is deeply incised with steep banks. The top of the southeast bank is significantly higher than the northwest bank.

5. Environmental Analysis
WILDFIRE

Fire History

Fire history information for an area can provide an understanding of fire frequency, fire type, most vulnerable fire-prone areas, and significant ignition sources. Fire history in this section uses CAL FIRE's Incidents interactive map, which shows fire history dating back to 2013 (CAL FIRE, 2021). The project vicinity fire history data shows there is significant wildfire potential in the region. The data indicates the potential for occasional wildfire encroachment and/or secondary effects most likely originating from the large expanses of open space/wildlands to the north (i.e., Santa Monica Mountains).

The most recent fire was the Woolsey Fire in November 2018, which burned areas in and around the Project Site, including in the ESHA. The Woolsey Fire burned the undeveloped slope between existing Building E and the football field, landscaping around Parking Lot A, and burned through the equestrian center. There was physical damage to landscaping, some fences, vehicular gates, and irrigation control valve covers. Operation of the school was severely affected during and following this fire event. Many structures in the surrounding area were directly affected by this fire. Other fires have burned within five miles of the Project Site since 2013 (CAL FIRE, 2021).

Debris Flows

Debris flow and erosion occurred after the Woolsey Fire during the November and December 2018 rain at the Project Site. During the rain, a 48-inch-diameter storm drain at the cul-de-sac on Clover Heights Avenue was plugged with debris, and debris flows overtopped the inlet structure, spilling onto the Project Site. Debris flows in this area were the result of the Woolsey Fire, which burned vegetation and structures on the surrounding slopes. The loss of surficial support provided by vegetation and the accumulation of moisture from prolonged rain in the loose and disturbed soil resulted in the debris flow (Leighton 2021).

Slopes with gradients between 11 and 26 degrees are recognized as transport zones—debris flows generated from the upslope source areas are transported across these zones and flow velocity remains mostly constant. In these areas, the loose soil and ash is stripped along the path of flow, which increases flow volume. Areas where the slope gradient is 11 degrees or flatter (e.g., the Project Site) are depositional areas where mud is deposited as the flow velocity decreases.

The source zone (north of the Project Site) emanates from the northwesterly trending, steep-sided canyons north of Cuthbert Road that lack vegetation and mature trees. The transport zone is generally defined as the mouth of the canyon from approximately Cuthbert Road, where debris flows blocked the road, down gradient to south of the intersection of Harvester Road and Clover Heights Avenue. The depositional zone is identified as the ballfields on the Project Site, immediately south of the northern chain-link-fence boundary down gradient to the debris basin in the southwest region of the parking lot. Although there are thick deposits of colluvium and ash on slopes above and surrounding the Project Site, the gradient of the flow pathway (depositional zone) as observed, not considering minor slopes, is almost flat, approximately five degrees.

Potential debris and mud flows could emanate from the main and tributary canyon upslope of the Project Site, approximately 2,400 feet to the north, and be transported down gradient.

5.16.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would have a significant effect on the environment if it would be located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and if the project would:

W-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.

W-2 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.

W-3 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.

W-4 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.

The IS/NOP, included as Appendix B, substantiates that impacts associated with the following threshold would be less than significant; therefore, this impact will not be further addressed in this DEIR:

- Threshold W-1

The topic of emergency access is addressed in Section 5.8, *Hazards and Hazardous Materials*.

5.16.3 Environmental Impacts

5.16.3.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the IS/NOP disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.16-1: Future development on the Project Site pursuant to the Proposed Project could exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors. [Threshold W-2]

Construction

The Project Site is in an LRA VHFHSZ with a high likelihood of exposure to a wildland fire and secondary effects of wildland fires. Project construction activities could result in exacerbated fire risks due to sparks, dry vegetation, and weather, particularly in areas where construction activities are in proximity to surrounding open space areas (i.e., Phases 1, 2, and 4). Given the high potential for wildland fires and associated risks in the project area, construction-related impacts are considered **potentially significant**. Mitigation Measure W-1 would ensure fire prevention requirements are in place during all phases of construction activities.

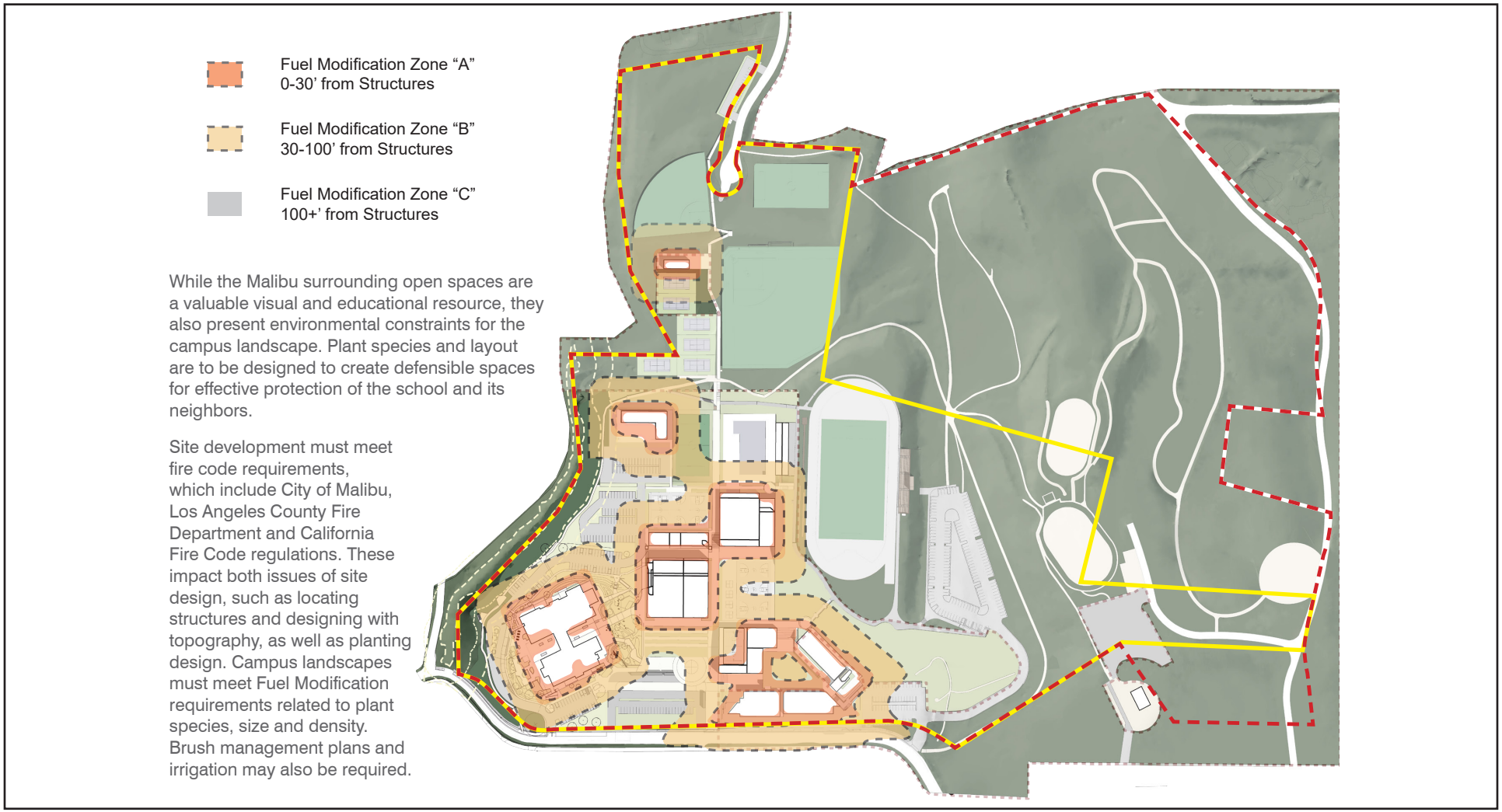
Operation

Slope and wind speed can influence the spread of fires (International Journal of Wildfire 2002 and 2010). Upslope topography eventually increases the spread rate of the fire in all fuel beds over flat conditions (International Journal of Wildfire 2010). Most of the new structures would be on the flat, previously developed areas of campus, and existing slope conditions would remain. The bus barn would be relocated from the western portion of the campus to the eastern portion just east of the existing Parking Lot A at an existing graded parking lot (see Figure 3-4, *Proposed Site Plan*). An approximately 422-kilowatt (kW) photovoltaic (PV) system would be installed on the sloping hillside to the south of the existing Lot A and the Main Sports Field and to the north and northwest of the new Middle School Building E (core classrooms building).

The Proposed Project would not significantly alter the existing topography, and the new buildings would be constructed on the existing grade. The minor modifications to the existing grades on the Project Site would not be expected to exacerbate wildfire risks due to increased slope modifications, and the proposed grade would not place new structures on slopes where wildfire risk could be exacerbated. The Proposed Project would be required to comply with current CBC standards, CFC standards, Title 5 regulations, and local fire code requirements, including fire protection features. These features include fuel modification requirements for landscape and highly ignition-resistant buildings to minimize the likelihood of exposing students, visitors, staff, and structures to a significant risk related to wildfires.

The Proposed Project would create greater setbacks from the ESHA and would not introduce large amounts of nonnative vegetation on-site. The Proposed Project would result in demolition of structures within the ESHA buffer area, such as the bus barn, the playfield at the former JCES, and surface parking. The District would implement a restoration plan for the ESHA that would include weed abatement, establish invasive plant controls, and implement erosion prevention and bank stability improvements. As shown in Table 3-12, *Conceptual Plant Palette for ESHA Restoration Site*, several plants suitable for consideration for ESHA restoration efforts would be fire resistant species. Fuel modification zones shown on Figure 5.16-2, *Fuel Modification Zones*, would be included as part of project design. Fire-resistant landscape plants would act as a defensible space to gradually reduce fire intensity and flame lengths from advancing fire by strategically placing thinning zones and irrigated zones next to each other.

Figure 5.16-2 Fuel Modification Zones



Source: LPA, 2021

5. Environmental Analysis
WILDFIRE

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The consolidated campus design, improved vehicular and pedestrian circulation, use of modern building materials, installation of fuel modification zones, and increased setbacks from the ESHA would collectively provide protection to minimize the likelihood of exacerbating wildfires. Therefore, off-site wildfire spread potential across the Project Site would be decreased due to a lack of continuous fuels. This robust fire protection system would provide protection from on-site fire spreading to off-site vegetation, and accidental fires within the landscape or structures on the Project Site would have limited ability to spread. Due to these design features, the Project Site is considered a safe site, shelter-in-place site, and point of refuge designed to support the community should it be determined safer than an evacuation.

Overall, the Proposed Project would redevelop and modernize the existing MMHS campus and former JCES campus and would not introduce new uses to the Project Site that would exacerbate wildfire risks. Impacts related to exacerbating wildfire risks due to slope, prevailing winds, and other factors during project operations would be **less than significant**.

Impact 5.16-2: Future development on the Project Site pursuant to the Proposed Project could 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 result in temporary or ongoing impacts to the environment. [Threshold W-3]

Construction of new off-site roads to access the Project Site would not be required. Through the redesign of the campus, the Proposed Project would construct new internal roads on-site that would facilitate emergency access throughout all areas of the Project Site in accordance with applicable emergency access code requirements.

The Proposed Project would not require the installation of new power lines or other off-site utilities, including infrastructure for emergency/fire water lines. The proposed domestic and fire water lines would connect to the existing 12-inch public water main on Morning View Drive, and water would be supplied by the Los Angeles County Waterworks District No. 29.

An "islandable microgrid," or ground-mounted PV solar array system with battery storage and energy control center would be constructed to avoid loss of instruction at MMHS due to mandated public utility shutdowns to prevent fires. The PV system would be installed on the sloping hillside to the south of the existing Lot A and the main sports field and to the north and northwest of Building E (core classrooms building). A 500 to 1,000 kW-hour battery storage system would be installed. Though battery storage systems generally burn with difficulty, they can burn or become damaged by fire and generate fumes and corrosive gases. Dry chemicals, carbon dioxide, and foam are the preferred methods for extinguishing a fire involving batteries—water is not effective. Class D extinguishers are used for lithium-metal fires only. To further increase safety, the battery units are usually low voltage, encased in a steel enclosure, and set apart from combustible materials. The battery storage system would have a fire rating in conformance with CBC and CFC standards and local fire codes. The structure would also have cooling systems to maintain cool temperatures within the unit.

Compliance with all applicable laws, regulations, and design standards would minimize the potential impacts to the public or environment due to the installation or maintenance of associated infrastructure that may exacerbate fire risk. Impacts would be **less than significant**.

Impact 5.16-3: Future development on the Project Site pursuant to the Proposed Project could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, postfire slope instability, or drainage changes. [Threshold W-4]

As discussed in Section 5.6, *Geology and Soils*, the Project Site is not in an area mapped as susceptible to seismically induced landslides. Previous grading and construction at the Project Site created terraced building pads and parking lots. The potential for liquefaction and liquefaction-induced ground failure to occur at the Project Site is considered low.

Construction

The potential exists for soil erosion during Project construction of each phase, as underlying ground surfaces are exposed. Construction of the Proposed Project would result in ground surface disturbance during excavation, grading, and trenching that could create the potential for soil erosion. Site preparation would require removal of necessary vegetation, existing structures, unsuitable fill, and asphalt and concrete paving, exposing pervious surfaces to the elements.

Each phase of the Proposed Project would be required to comply with National Pollutant Discharge Elimination System permit requirements to control pollutants from being discharged into the water. Under this permit, which applies to grading activities of more than one acre and is administered under the Regional Water Quality Control Board, the District would be required to prepare and implement a Storm Water Pollution Prevention Plan, including best management practices (BMP) to address construction-related discharges. Preparation of a Storm Water Pollution Prevention Plan is described in detail in Section 5.9, *Hydrology and Water Quality*, of this DEIR. BMPs include, but are not limited to, the implementation of erosion and sediment controls. Because construction would occur throughout the year, erosion control BMPs must be implemented to ensure that sediment is confined to the construction area and not transported off-site. During construction, all stormwater runoff would be diverted to the appropriate catch basins and drainage channels, subject to all applicable regulatory statutes and permits, including those in Title 15 (Building and Construction) of the Malibu Municipal Code, which adopts Title 26 (Building Code) of the Los Angeles County Code. As a result, project construction would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, postfire slope instability, or drainage changes. Impacts would be **less than significant**.

Operation

Potential debris and mud flows could emanate from the canyon located approximately 2,400 feet upslope and north of the Project Site. However, it is unlikely that a thick overburden of soil remains on slopes above the Project Site due to the November and 2018 rain which resulted in deposition from upslope debris flows. Since the December 2018 debris flow, the slopes above the Project Site have revegetated with light grasses, residences are being rebuilt, and drainage pathways were corrected. Based on the relatively gentle slope inclination (±5 degrees) and long depositional zone (1,100 feet), which has a defined flow path, the potential for a debris flow emanating from the source area to cause significant structural damage to the Project Site is low.

The Proposed Project would improve on-site hydrology and would implement erosion prevention and bank stability improvements as part of the ESHA restoration plan on the District property. Bank stability improvements and erosion control would occur in the upstream and downstream portions of the ESHA during Phase 1 of the Proposed Project, and demolition of the hardscape within the 100-foot buffer of the downstream area would also occur during Phase 1. Demolition of the developed areas within the 100-foot buffer of the upstream and middle-stream area would occur during Phase 4 because the bus barn and other existing structures would remain operational until Phase 4 commences. This restoration would improve existing conditions related to drainage patterns and would prevent future postfire slope instability in the event of a wildfire in the project area.

Slope creep is a related phenomenon where the soils on and adjacent to fill and natural soil slopes loosen with time and incrementally move downslope due to gravity. A contributing factor at the Project Site is the presence of expansive soil, which expands and shrinks during wetting and drying cycles. The expanding and shrinking of the soil could cause a ratcheting effect, where soil and relatively light surface improvements, such as concrete slabs, tend to move laterally toward the unconfined slope face during expansion and downward during periods of shrinkage. This would result in a gradual downward and lateral movement of the surficial soils (and surficial improvements). This slope creep could result in slope instability, and impacts would be **potentially significant**. The Proposed Project would be required to conform to the recommendations in the preliminary geotechnical evaluation and final geotechnical report for the design and construction of proposed slopes and would be monitored during construction as required by Mitigation Measure GEO-1.

5.16.4 Mitigation Measures

Impact 5.16-1

W-1 The District and its general contractor will prepare a Construction Fire Protection Plan (CFPP) that shall be implemented during all phases of construction activity. The CFPP will be approved by the County of Los Angeles Fire Department (LACoFD) prior to building construction and may also be reviewed and approved in phases based on the phased development of the Proposed Project.

The CFPP shall include, but not be limited to, guidance for:

- Prevention, control, and extinguishment of fires during construction activities.
- Smoking- and fire-related rules, storage, and parking area.
- Delineating work areas from natural/open space areas and establishing sufficient setbacks.
- Vegetation management prior to and during construction activity, consistent with LACoFD protocols.
- Requirement to use spark arrestors on construction equipment.
- Limiting the type and duration of construction activities during red flag warning events issued by the National Weather Service covering the project area.

Impact 5.16-3

The Proposed Project would require the implementation of Mitigation Measure GEO-1, which would require adherence to the recommendations listed in the geotechnical report prepared for the Proposed Project. These include but are not limited to seismic design parameters, foundation design, retaining wall, grading, trenching, etc. Details of these recommendations are included in Appendix G.

5.16.5 Level of Significance After Mitigation

Mitigation Measure W-1 would reduce potential impacts associated with wildfire risks during construction to a level that is less than significant through implementation of fire prevention measures. Mitigation Measure GEO-1 would require adherence to design recommendations in the final Geotechnical Report for the Proposed Project. These recommendations include industry-proven standards to prevent soil erosion and unstable soils. Therefore, no significant unavoidable adverse impacts relating to wildfire have been identified.

5.16.6 Cumulative Impacts

With regard to cumulative impacts related to wildfire risks due to slope, prevailing winds, and other factors, and given that related development and redevelopment projects would be l in either an SRA or LRA VHFHSZ and within areas characterized by hills and mountains (wildland-urban interface), each related project would be evaluated and would be required to adhere to applicable CBC, CFC, and local code development requirements and standards to reduce potential wildfire risk and exposure of occupants to pollutant concentrations from a wildfire. Implementing fuel modification zones and using fire-resistant construction materials are examples of standards to minimize potential impacts related to the uncontrolled spread of a wildfire. As concluded in the discussion of project construction impacts, in Section 5.16.3.1, *Impacts Analysis*, Impact 5.16-1, above, the Proposed Project would have a significant impact related to exacerbation of wildfire risks. Implementation of Mitigation Measure W-1 would reduce potential impacts to less than significant. The Proposed Project is not anticipated to contribute to a significant cumulative impact.

Cumulative projects may require associated infrastructure, such as roads, fuel breaks, and power lines, that could exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. These projects would be reviewed by their respective jurisdictions for land use and zoning consistency and compliance with applicable design requirements. Infrastructure would be placed in conformance with applicable fire codes to minimize the potential fire risk. As concluded in the discussion of project impacts, in Section 5.16.3.1, *Impacts Analysis*, Impact 5.16-2, above, the Proposed Project would not require installation of associated infrastructure that would exacerbate fire risk and would have a less than significant impact. Therefore, the Proposed Project is not anticipated to contribute to a significant cumulative impact related to the installation or maintenance of associated infrastructure, and thus would result in a less than significant cumulative impact.

Additionally, some cumulative projects are proposed in areas that could expose people or structures to risks from downslope or downstream flooding or landslides as a result of postfire instability. All projects would be required to adhere to their respective jurisdiction's zoning and land use designations, applicable state and local fire codes, and regulations associated with drainage and site stability. These regulations, policies, and codes would reduce the potential for exposing people or structures to the risks from downslope or downstream

flooding or landslide and debris flows as a result of postfire instability. As concluded in the discussion of Proposed Project impacts, in Section 5.16.3.1, *Impacts Analysis*, Impact 5.16-3, above, the Proposed Project could expose people or structures to significant risks due to postfire slope instability or drainage changes. Implementation of Mitigation Measure GEO-1 would be required to reduce risks related to slope instability. Project impacts would be less than significant. The Proposed Project would not contribute to a significant cumulative impact related to the exposure of people or structures to significant risks as a result of runoff, postfire slope instability, or drainage changes.

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6. Other CEQA Considerations

This section of the Draft Environmental Impact Report (DEIR) evaluates other California Environmental Quality Act (CEQA) considerations for the Malibu Middle and High School (MMHS) Campus Specific Plan Project (Proposed Project), including significant unavoidable adverse impacts, impacts found not to be significant, significant irreversible changes, and growth-inducing impacts.

6.1 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

At the end of Chapter 1, *Executive Summary*, is a table that summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. Mitigation measures would reduce the level of impact, but the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

- **Impact 5.1-4:** In order to meet safety requirements, new pool lighting would create a new source of substantial light and glare, conflicting with the City of Malibu Dark Sky Ordinance [Threshold A-4]

- **Impact 5.11-1** Construction-related activities would result in temporary noise increases in the vicinity of the Proposed Project in excess of established standards. [Threshold N-1]

6.2 IMPACTS FOUND NOT TO BE SIGNIFICANT

California Public Resources Code (PRC) section 21003 (f) states: "…it is the policy of the state that…[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the State California Environmental Quality Act (CEQA) Guidelines § 15126.2(a), which states that "[a]n EIR [Environmental Impact Report] shall identify and focus on the significant environmental impacts of the proposed project" and § 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." The Guidelines allow use of an Initial Study to document project effects that are less than significant (Guidelines § 15063[a]). Guidelines § 15128 requires that an Environmental Impact Report (EIR) contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in this Draft Environmental Impact Report (DEIR).

6.2.1 Assessment in the Initial Study

The Initial Study/Notice of Preparation (IS/NOP) prepared for the Proposed Project August 2020 determined that impacts listed below would be less than significant. Consequently, they have not been further

6. Other CEQA Considerations

analyzed in this DEIR. The IS/NOP is included as Appendix B of this document. Please refer to Appendix B for explanation of the basis of these conclusions. Impact categories and questions are summarized in Table 6-1, *Impacts Found Not to Be Significant*, and are directly from the CEQA Environmental Checklist as contained in the IS/NOP.

Table 6-1 Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	
b) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than Significant
V. CULTURAL RESOURCES. Would the project:	
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Less than Significant
VII. GEOLOGY AND SOILS. Would the project:	
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	
i) 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 Division of Mines and Geology Special Publication 42.	Less than Significant
ii) Strong seismic ground shaking?	Less than Significant
iii) Seismic-related ground failure, including liquefaction?	Less than Significant
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less than Significant
e) 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 for people residing or working in the project area?	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:	

Table 6-1 Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less than Significant
i) result in a substantial erosion or siltation on- or off-site;	Less than Significant
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Less than Significant
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less than Significant
XI. LAND USE AND PLANNING. Would the project:	
a) Physically divide an established community?	No Impact
XII. MINERAL RESOURCES. Would the project:	
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact
XIII. NOISE. Would the project result in.	
c) For a project located within the vicinity of a private airstrip or 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 expose people residing or working in the project area to excessive noise levels?	No Impact
XIV. POPULATION AND HOUSING. Would the project:	
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact
XV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	
c) Schools?	No Impact
d) Parks?	No Impact
e) Other public facilities?	No Impact
XVI. RECREATION.	
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No Impact
XVII. TRANSPORTATION. Would the project:	
d) Result in inadequate emergency access?	Less than Significant
XVIII. TRIBAL CULTURAL RESOURCES.	
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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, and that is:	
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	Less than Significant

Table 6-1 Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
ii) 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 Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Less than Significant
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:	
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Less than Significant
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less than Significant
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than Significant

6.3 SIGNIFICANT IRREVERSIBLE CHANGES DUE TO THE PROPOSED PROJECT

Section 15126.2(c) of the California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) describe any significant irreversible environmental changes that would be caused by the proposed project should it be implemented. Specifically, the CEQA Guidelines states:

> Uses of nonrenewable resources during the initial and continued phases of the proposed 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 highways improvement which provides access to a previously inaccessible area) generally commit future generations 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 following are the significant irreversible changes that would be caused by the Proposed Project if it is implemented:

- Implementation of the Proposed Project would include construction activities that would entail the commitment of nonrenewable and/or slowly renewable resources; human resources; and natural resources such limber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, water, and fossil fuels.
- Operation of the Proposed Project would require continued use of natural gas and electricity, petroleum-based fuels, fossil fuels, and water, similar to existing school operations.

- Operation of the proposed improvements would require a continued commitment of social services and public maintenance services (e.g., police, fire, and sewer and water services), similar to that existing for the school's current operations.

The commitment of resources required for the rebuild and continued operation of the site as a middle and high school would limit the availability of resources for future generations or for other uses during the life of the Proposed Project.

6.4 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

Pursuant to §§ 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine 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. Also required is an assessment of other projects that would foster other activities which could affect the environment, individually or cumulatively. To address this issue, potential growth-inducing effects will be examined through analysis of the following questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?

- Would this project result in the need to expand one or more public services to maintain desired levels of service?

- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which the Proposed Project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this DEIR.

Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?

The Proposed Project would redevelop and modernize the existing MMHS campus and former Juan Cabrillo Elementary School campus to create three distinct areas: Middle School Core, High School Core, and shared facilities. The Proposed Project includes similar facilities for continued use of the site as a school that serves the surrounding community. The Project Site is in an urban area served by existing infrastructure, including water mains, septic, electricity, and natural gas services. The Proposed Project would not change the

underlying land use of the Project Site and would not change the existing regulations pertaining to land development. The improvements would affect the existing school site and would not remove obstacles to growth or affect population growth.

Would this project result in the need to expand one or more public services to maintain desired levels of service?

The Proposed Project would improve and reconstruct an existing school campus with similar uses. It is not growth inducing, and the Proposed Project would retain the total capacity of 1,200 students (750 high school students and 450 middle school students). Therefore, the Proposed Project would not require expansion of facilities and personnel for fire protection or police services to maintain desired levels of service. The Proposed Project would not result in growth-inducing impacts related to public services.

Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

Construction of the Proposed Project would generate short-term employment, which would be absorbed from the regional labor force and would not attract new workers to the region. Operation of the Proposed Project would not increase total employment at the school campus since it would accommodate the existing school programs and would not introduce new uses to the Project Site. The Proposed Project would not result in growth-inducing impacts in this regard.

Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

The need for the Proposed Project is to improve facilities at the Project Site to maintain and enhance the Santa Monica–Malibu Unified School District's (District) educational goals and programs. District approval would not set a precedent that could encourage and facilitate local and regional activities and government actions that could significantly affect the environment. School enhancement, and rebuild projects and programs are common statewide and nationwide.

7. Alternatives to the Proposed Project

7.1 INTRODUCTION

This chapter presents the alternatives analysis for the Malibu Middle and High School (MMHS) Campus Specific Plan Project (Proposed Project), as required by the California Environmental Quality Act (CEQA). The discussion includes an explanation of the methodology used to select alternatives to the Proposed Project, with the intent of identifying potentially feasible alternatives that could avoid or substantially lessen the significant impacts identified for the Proposed Project while still meeting most of the basic Project objectives. This chapter identifies a reasonable range of alternatives that meet these criteria, and these alternatives are evaluated with respect to minimizing adverse environmental effects as compared to the Proposed Project. It describes other alternatives and alternative concepts that were considered but eliminated from detailed consideration and reasons for their elimination. For the alternatives selected for analysis, this chapter evaluates the impacts of the alternatives against baseline environmental conditions and compares the potential impacts of the alternatives with those of the Proposed Project. Finally, as required under CEQA Guidelines § 15126.6(e), based on this analysis, this chapter then discusses the Environmentally Superior Alternative.

CEQA requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines § 15126.6[a]). As required by CEQA, this chapter identifies and evaluates potential alternatives to the proposed project.

Section 15126.6 of the CEQA Guidelines explains the foundation and legal requirements for the alternatives analysis in an EIR. Key provisions are:

- "[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly." (CEQA Guidelines § 15126.6[b])

- "The specific alternative of 'no project' shall also be evaluated along with its impact." (CEQA Guidelines § 15126.6[e][1])

- "The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, 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. If

the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." (CEQA Guidelines § 15126.6[e][2])

- "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project." (CEQA Guidelines § 15126.6[f])

- "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…, 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)" (CEQA Guidelines § 15126.6[f][1]).

- "Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR." (CEQA Guidelines § 15126.6[f][2][A])

- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative." (CEQA Guidelines § 15126.6[f][3])

For each development alternative, this analysis:

- Describes the alterative.
- Analyzes the impact of the alternative compared to the Proposed Project.
- Identifies the impacts of the Proposed Project that would be avoided or lessened by the alternative.
- Assesses whether the alternative would meet most of the basic Project objectives.
- Evaluates the comparative merits of the alternative and the Proposed Project.

According to § 15126.6(d) of the CEQA Guidelines, "[i]f an alternative would cause…significant effects in addition those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed."

7.2 FACTORS CONSIDERED WHEN DEVELOPING ALTERNATIVES

This section describes the basis for determining the range of CEQA alternatives and identifies the specific alternatives that are analyzed in this Draft EIR (DEIR). The primary factors considered when determining feasible alternatives to the Proposed Project are the identified Project objectives and those impacts that have been identified for the Proposed Project. Therefore, these two considerations are summarized below.

7.2.1 Project Objectives

As described in Section 3.2, *Statement of Objectives*, the following objectives have been established for the Proposed Project and will aid decision makers in their review of the Proposed Project, the Project alternatives, and associated environmental impacts.

1. Create unique and separate identities for the Malibu Middle School and Malibu High School campuses.
2. Advance educational facilities to support 21st Century learning and properly support the projected enrollment.
3. Improve learning by replacing undersized and inflexible facilities with larger, functional flexible spaces that accommodate modern, diverse learning styles and allow for variable uses.
4. Provide enhanced, modern, and functional support spaces, such as libraries, cafeteria, labs, maker spaces, and other student services, that promote whole child development.
5. Improve the arts and athletic facilities in support of both the school and the community's educational, cultural, and recreational enhancement.
6. Reorganize open space and foster intercampus circulation.
7. Improve access, circulation, and drop-off and pickup, and increase on-campus parking in a manner that improves pedestrian and vehicle safety.
8. Respect the natural environment by developing a campus that is of high design, and complementary to the natural landscape and that contributes to the high scenic quality of the area.
9. Adopt development standards for the MMHS allowing for the educational design requirements of many of the buildings.
10. Increase District resiliency, protect and maximize the learning environment, and maximize energy and operational savings through a photovoltaic solar array and battery backup system.
11. Remove hazardous buildings and structures.

7.2.2 Summary of Significant Effects of the Proposed Project

The following impacts have been identified for the Proposed Project, as discussed in Chapter 5, *Environmental Analysis*, of this DEIR.

7.2.2.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

- Impact 5.1-4: In order to meet safety requirements, new pool lighting would create a new source of substantial light and glare, conflicting with the City of Malibu Dark Sky Ordinance [Threshold A-4].
- Impact 5.11-1: Construction-related activities would result in temporary noise increases in the vicinity of the Proposed Project in excess of established thresholds [Threshold N-1].

7.2.2.2 SIGNIFICANT IMPACTS THAT CAN BE MITIGATED TO LESS THAN SIGNIFICANT

- Impact 5.1-4: The Proposed Project would not generate additional light and glare [Threshold AE-4].
- Impact 5.2-4: The Proposed Project could expose sensitive receptors to substantial pollutant concentrations during construction [Threshold AQ-3].
- Impact 5.4-2: Development pursuant to the Proposed Project would result in an impact on archaeological resources [Threshold C-2].
- Impact 5.6-3: Future development in the Project Site could subject persons or structures to hazards arising from off-site landslide, lateral spreading, subsidence, collapsible soils, or expansive soils [Thresholds G-1iv, G-3, and G-4].
- Impact 5.6-5: Build out of the Proposed Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature [Threshold G-6].
- Impact 5.11-1: Construction-related activities would result in temporary noise increases in the vicinity of the Proposed Project in excess of established standards [Threshold N-1].
- Impact 5.11-2: Project implementation would not result in permanent operation-related noise that would exceed established standards [Threshold N-1].
- Impact 5.14-3: Project circulation improvements have been designed to adequately address potentially hazardous conditions (sharp curves, etc.), and potential conflicting uses [Threshold T-3].
- Impact 5.16-1: Future development on the Project Site pursuant to the Proposed Project could exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors [Threshold W-2].
- Impact 5.16-3: Future development on the Project Site pursuant to the Proposed Project could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, postfire slope instability, or drainage changes [Threshold W-4].

7.3 ALTERNATIVES CONSIDERED BUT DISMISSED FROM FURTHER EVALUATION

The following is a discussion of the land use alternatives considered during the scoping and planning process and the reasons why they were not selected for detailed analysis in this DEIR.

7.3.1 Off-Site Alternative

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially

lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (CEQA Guidelines § 15126[5][B][1]).

The Proposed Project by design is intended for the MMHS campus. Consequently, an alternative off-site location is not a feasible alternative and would not meet the Project objectives. Certain impacts that are identified as being potentially significant under the Proposed Project are due primarily to construction-related activity such as air emissions and noise. These impacts would occur regardless of the Proposed Project's location. For these reasons, an alternative that is in another location within the District is not addressed in this chapter. Because the Project Site is already developed as a school, constructing a new school on a different site would likely increase environmental impacts. For these reasons, this alternative was not considered further.

7.3.2 Alternative Design

At the beginning of planning efforts for the Proposed Project, three organizational layout concepts were presented to the public, District Steering Committee, and Campus Design Committee as Option A (The Canyon), Option B (The Park), and Option C (The Villages). Option A locates the middle school roughly at the former JCES site and the high school roughly where the new Buildings A/B and E are located. The middle school and high school would have their own dedicated quad and identity from Morning View Drive under this option. Option B organized both the middle school and high school around one main quad with less definition between the schools and more blending of high school and middle school students. Option C would locate the high school at the former JCES site and place the middle school in the recently completed Buildings A/B and E.

These options were ultimately rejected based on community, District Steering Committee, and Campus Design Committee feedback in favor of the proposed project's design and layout. Each option presented a variation in overall campus layout and design and would have resulted in a negligible change to the environmental impacts of the Proposed Project.

7.3.3 Alternative Location

In 2011, the District considered an alternative location for the Proposed Project on a District-owned 24.33 acre lot. However, based on the California Department of Education's (CDE) *Guide to School Site Analysis and Development* (2000), a school with an enrollment roughly equivalent to the existing MMHS campus would require approximately 30.44 acres (Parsons 2011) in order to meet CDE's classroom and playfield size requirements. The District does not own any properties in the City of Malibu that could accommodate a new middle school and high school to replace the existing MMHS, rendering this scenario economically infeasible.

In consideration of the information provided above, the Alternative Location Alternative was eliminated from further consideration in this EIR because the construction of a new middle school and high school as an alternative to the Proposed Project would be economically infeasible and would result in greater significant impacts to the environment, primarily due to the extent of construction that would be required, rather than avoiding significant and unavoidable impacts that would result from implementation of the Proposed Project.

7.3.4 Alternative Location for the Bus Barn

The District considered relocating the bus barn to an alternative site. The alternative site would have been on a County-owned lot at 3637 Winter Canyon Road, which is approximately 8 miles east of the Project Site. However, the County had already entered into a lease agreement with another entity. Thus, this site could not be used for the bus barn, and this alternative was ultimately rejected. Compared to the Proposed Project, this alternative would have increased vehicle miles traveled associated with the school buses that serve MMHS, due to the distance between the alternative site and the Project Site. Overall, this alternative would have changed a minor component of the Proposed Project and would have overall resulted in a negligible change to the environmental impacts of the Proposed Project.

7.4 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

The following three alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the Proposed Project and may avoid or substantially lessen any of the significant effects of the Proposed Project or ameliorate community concerns. The following alternatives are analyzed in detail in the following sections.

- Alternative 1: No Project Alternative
- Alternative 2: Development of Phases 1 and 2 Only
- Alternative 3: Elimination of Parking Lot F (at Clover Heights)

7.5 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

7.5.1 Description

The CEQA Guidelines require the analysis of a No Project Alternative. Under CEQA, the No Project Alternative must consider the effects of not approving the Proposed Project. The No Project Alternative describes the environmental conditions that exist at the time that the environmental analysis commences, as well as what would reasonably be expected to occur in the foreseeable future if the Proposed Project was not approved (CEQA Guidelines § 15126.6(e)(2)).

Under the No Project Alternative, the District would not approve any portion of the Proposed Project on the Project Site, and none of the mitigation measures identified within this DEIR would be necessary. No demolition would occur under the No Project Alternative, because the existing structures on the Project Site would be retained. Under the No Project Alternative, it is assumed that the reasonably foreseeable future at the Project Site would be the continued occupation of the existing buildings within the MMHS campus as in current conditions. MMHS would not be redeveloped and modernized, and buildings that are part of the former Juan Cabrillo Elementary school (JCES) would be used by existing students as needed (portable buildings and Building E, Library) or remain unoccupied. The school would continue to operate under its current conditions, and no changes would take place.

7.5.2 Relationship to Project Objectives

Under the No Project Alternative, none of the District's objectives for the Proposed Project would be met.

7.5.3 Comparative Analysis of Environmental Effects

7.5.3.1 AESTHETICS

Under this alternative, no structural or any other visual changes to the existing MMHS campus facilities would occur. There would be no changes to the physical environment as it relates to aesthetic resources, including light and glare, and no impacts would occur. Overall, the No Project Alternative would avoid the less-than-significant aesthetic impacts of the Project as well as the significant and unavoidable lighting impact, and impacts under this alternative would be less than those of the Project.

7.5.3.2 AIR QUALITY

No construction would occur under this alternative; therefore, no construction-related air quality impacts would occur. Construction-related impacts would be less than the less-than-significant impacts of the Proposed Project. Operation (i.e., student enrollment, staffing, and general operational characteristics) under this alternative would remain similar to existing conditions. This alternative would not add new vehicle trips nor emissions. As discussed in Chapter 3, *Project Description*, the Proposed Project would not change enrollment capacity and staffing of the Project Site. Therefore, operational-related air quality impacts under this alternative would be similar to the less-than-significant impacts of the Proposed Project after mitigation.

7.5.3.3 BIOLOGICAL RESOURCES

No construction would occur under the No Project Alternative, and the campus would continue to operate as it currently does. Potential impacts to biological resources during construction (i.e., removal of trees) would be less than the less-than-significant impacts associated with the Proposed Project (after mitigation). Restoration of the adjacent Environmentally Sensitive Habitat Area (ESHA) would also not occur under this alternative. Operational impacts would be similar to current conditions, and impacts to biological resources would be less than significant, as with the Proposed Project. However, this alternative would not realize the beneficial biological impacts of the ESHA restoration.

7.5.3.4 CULTURAL RESOURCES

The No Project Alternative would avoid any ground-disturbing activities. Therefore, potential construction-related impacts to subsurface unknown archaeological resources would be avoided and impacts would be less than the Proposed Project. Overall, the No Project Alternative would avoid the less-than-significant (after mitigation) cultural resources impacts of the Project, and impacts under this alternative would be less than those of the Project.

7.5.3.5 ENERGY

Under this alternative, construction of new buildings would not occur. Therefore, no construction-related energy consumption would occur, and construction-related impacts to energy would be less than the Proposed Project. The alternative would continue to operate in its existing condition as a middle and high school. Therefore, energy demand for electricity and fuel consumption would remain as is and would not affect local or state renewable energy plans. Potential operational-related impacts to energy would be similar to the less-than-significant impacts of the Proposed Project, since neither this alternative nor the Proposed Project would increase student enrollment capacity nor staffing.

7.5.3.6 GEOLOGY AND SOILS

No new construction activities, including grading, would occur under the No Project Alternative. Because the No Project Alternative would not cause ground-disturbing activities, impacts to soil erosion and loss of topsoil, landslide, lateral spreading, and paleontological resources would be less than the Proposed Project. The alternative would have similar operational impacts related to ground shaking and active faults because the alternative would still be located on the same Project Site, though buildings would be developed to more current building standard requirements. Overall, the No Project Alternative would avoid the less-than-significant after mitigation geology and soil impacts of the Project, and impacts under this alternative would be less than those of the Project.

7.5.3.7 GREENHOUSE GAS EMISSIONS

Under this alternative, no demolition would occur, and no new construction and modernization would occur. Therefore, no construction-related greenhouse gas (GHG) emissions would occur, and this alternative's GHG emissions would be less than the Proposed Project's less-than-significant impact. The Project Site would continue to operate as a middle and high school. Therefore, on-site operational energy uses would be less than the Proposed Project. As with the Proposed Project, the No Project Alternative would not conflict with any applicable plans or policies. Overall, the No Project Alternative would avoid the less-than-significant GHG emissions impacts of the Project and impacts under this alternative would be less than those of the Project.

7.5.3.8 HAZARDS AND HAZARDOUS MATERIALS

Because no development would occur under the No Project Alternative, construction impacts related to hazards or hazardous materials would be less than the Proposed Project. The alternative would continue to use, transport, and handle hazardous materials typical of a middle school and high school during operation (such as cleaning supplies, science laboratory chemicals, pesticides and landscaping hazardous materials). Therefore, impacts from hazardous materials during operation would be less than significant, similar to the Proposed Project.

7.5.3.9 HYDROLOGY AND WATER QUALITY

Water quality conditions, groundwater supplies, drainage patterns, and surface water runoff would remain the same under the No Project Alternative because no construction or new development would occur. This alternative would not introduce new sources of water pollutants from the construction phase, and the impacts

would be less than the Proposed Project during construction. This alternative would continue to operate as a middle and high school with the same student enrollment capacity and staffing as existing conditions and the Proposed Project. This alternative would not install new stormwater infrastructure on-site and would continue to direct water to the ESHA and Morning View Drive as existing conditions. Therefore, the impacts for the operational phase would be slightly reduced compared to the less-than-significant impacts of the Proposed Project.

7.5.3.10 LAND USE AND PLANNING

Because no development would occur under the No Project Alternative, no changes to uses nor buildings on-site would occur. Therefore, the No Project Alternative would not conflict with any applicable plans. The No Project Alternative's operational impacts would be less than the less-than-significant impacts of the Proposed Project.

7.5.3.11 NOISE

No construction noise impacts would occur under this alternative; therefore, the construction noise impacts would be less than the Proposed Project. Specifically, construction noise impacts to on-site school receptors would be less than the Proposed Project's less-than-significant impacts. The significant and unavoidable construction impacts to off-site sensitive receptors associated with the Project would be avoided by the No Project Alternative. Under this alternative, the campus would continue to operate as a middle and high school campus, and operational noise would not increase at the residences adjacent to the Project Site. The No Project Alternative and the Proposed Project would both operate as a middle and high school and operational noise impacts would be similar to that of the Proposed Project. Overall, the No Project Alternative would result in less noise impacts than the Project, and the significant and unavoidable construction noise to off-site sensitive receptors would be avoided.

7.5.3.12 PUBLIC SERVICES

The Project Site would remain in its existing condition and current uses. Therefore, there would be change in demand for fire or police services. Similar to the less-than-significant impacts of the Proposed Project, the No Project Alternative would not increase student enrollment capacity and staffing; therefore, this alternative's impacts to fire and police protection service would be similar to the Proposed Project.

7.5.3.13 RECREATION

Neither the Proposed Project nor the No Project Alternative increase student capacity and therefore would not increase the demand for new or expanded recreational facilities. This alternative would not benefit from the additional recreational opportunities proposed under the Proposed Project, such as the trail system. This alternative's impacts to recreation would be more similar to existing conditions, and therefore, slightly reduced compared to the Proposed Project.

7.5.3.14 TRANSPORTATION

There would be no construction under this alternative, and therefore there would be no impacts to construction-related traffic. The less-than-significant after mitigation impacts of the Proposed Project would be reduced under the No Project Alternative. The No Project Alternative would not reconfigure parking lots, improve drop-off and pick-up areas, or improve pedestrian circulation. Because staffing and student enrollment would not change, there would be no change to the Project's vehicle miles traveled. Therefore, the impacts related to traffic would be less than the Proposed Project.

7.5.3.15 UTILITIES AND SERVICE SYSTEMS

Under the No Project Alternative, the Project Site would remain in its current condition and would not require new or changes to existing utilities infrastructure. Since the student capacity would remain unchanged, there would be no change to service system demands. Therefore, this alternative's impacts to utilities and service systems would be similar to the less-than-significant impacts of the Proposed Project.

7.5.3.16 WILDFIRE

The Project Site is located in a very high fire hazard severity zone (VHFHSZ) for a local responsibility area (LRA), and this alternative would remain located within this zone. The No Project Alternative would not require installation of infrastructure or modification to existing slopes in a way that would exacerbate fire risk or increase flooding or landslides and would not exacerbate pollution from wildfires. No construction would occur under this alternative and the less-than-significant impacts after mitigation would be reduced. No impact to emergency response or evacuation plan during construction or operation would occur. Overall, impacts related to wildfire would be less than the Proposed Project.

7.5.4 Conclusion

This alternative would lessen environmental impacts related to construction in all topic areas, since no construction would occur under this alternative. The No Project Alternative would avoid the significant and unavoidable lighting impact and temporary construction noise impacts identified for the Proposed Project. This alternative would not cause operational impacts associated with aesthetics, biological resources, GHG emissions, hydrology and water quality, land use and planning, noise, recreation, and transportation. Because the Proposed Project would not change operational conditions of the campus, including student enrollment and staffing, the No Project Alternative would result in similar operational impacts in the areas of air quality, energy, geology and soils, hazards and hazardous materials, public services (fire and police), and utilities and service systems.

The No Project Alternative does not meet any of the Project's objectives. Additionally, this alternative would not realize any of the environmentally beneficial outcomes of the Proposed Project, including restoration of the ESHA, enhanced recreational opportunities, and sustainability improvements (including the installation of the solar panel system). Overall, the No Project Alternative results in reduced impacts throughout all environmental topics and avoidance of the one identified significant and unavoidable impact.

7.6 ALTERNATIVE 2: DEVELOPMENT OF PHASES 1 AND 2 ONLY

7.6.1 Description

Under this Alternative, the Proposed Project would be limited to the activities in Phases 1 and 2 only. Phases 3 and 4 would not be developed. Phase 1 consists of demolition of all existing former JCES campus buildings and portables P6 and P7 and construction of Building C (the High School Core building that includes classrooms, student support services, and administrative and campus support), Parking Lot C, Parking Lot D, and the drop-off/pick-up area. Phase 1 would also include infrastructure improvements, including drainage management areas and septic improvements. Construction of Phase 1 is anticipated to begin in fall 2022 and be completed by summer 2024. Phase 2 would consist of construction of Building D (Gymnasium/Fitness/PE and Student Activities and Food Services) and the Middle School Quad. Phase 2 would also include infrastructure improvements, including drainage management areas, septic improvements, and development of the solar panel system. Construction of Phase 2 is anticipated to begin in fall 2024 and be completed by fall 2026 (contingent on passage of a new bond measure). Under this alternative, the project would construct a total of 90,395 square feet of new building space, which consists of 68,019 square feet under Phase 1 and 22,376 square feet under Phase 2.

Alternative 2 would not include development of Phases 3 and 4, and demolition of MMHS Buildings F, I, K, J, J1, Field House, Portables, Pool (and associated pool lighting), Pool Building, JCES Portables P1-P5, Restroom Portables, Bus Barn, and M&O Warehouse would no longer occur. Construction of Building J (High School Gymnasium) and Buildings L, M, H, and I (shared facilities); Parking Lot E, F; the relocation of the bus barn; and relocation of the Boys and Girls Club would also not occur. Infrastructure improvements associated with Phases 3 and 4 also would not occur. Alternative 2 would result in an overall reduction of 93,200 square feet of redevelopment from the Proposed Project, and a reduction in demolition of 111,630 square feet of existing structures. Construction of Alternative 2 would be completed by fall 2026. Under this alternative, the ESHA would only be partially restored.

7.6.2 Relationship to Project Objectives

No shared facilities or separate middle school campus would be developed under this alterative. Therefore, the Development of the Phases 1 and 2 Only Alternative would only partially meet Objectives 1, 8, and 9. This alternative would meet Objectives 2, 3, 6, 7, and 10 but to a lesser extent than the Proposed Project. The Phases 1 and 2 Only Alternative would not meet Objectives 4 and 5.

7.6.3 Comparative Analysis of Environmental Effects

7.6.3.1 AESTHETICS

This alternative would result in less construction than the Proposed Project. Under this alternative, views, scenic quality, and light and glare of the Project Site would be more similar to existing conditions. Additionally, the improvements to the existing pool, which would include new lighting that would result in a significant and unavoidable light and glare impact, would not occur under Alternative 2. Therefore, this alternative would

eliminate the significant and unavoidable lighting impacts, and result in a reduced impact to aesthetics compared to the Proposed Project.

7.6.3.2 AIR QUALITY

Alternative 2 would result in less construction than the Proposed Project, both in intensity of construction activities—including equipment, earth-moving activities, construction vehicle trips, material consumption, etc.—and in overall duration (reduction of four years). Therefore, this alternative would result in lower emissions of criteria pollutants during the construction phases compared to the Proposed Project. Nevertheless, Mitigation Measure AQ-1 would still be required during construction of this alternative to reduce impacts to less-than-significant levels.

Similar to the Proposed Project, this alternative would install the solar panel system with battery storage (as part of Phase 2), which would increase the campus' use of renewable energy. However, under this alternative, only Buildings C and D would be constructed to meet green building standards that promote energy and water efficiency and conservation. This alternative would have the same enrollment capacity and staffing as the Proposed Project, and air quality from vehicles trips would remain less than significant, as with the Proposed Project. Overall air quality impacts would be reduced compared to the Proposed Project.

7.6.3.3 BIOLOGICAL RESOURCES

This alternative would result in less construction than the Proposed Project and would reduce direct and indirect impacts to vegetation and wildlife on-site, including reduction in tree removal and in direct impacts to potentially suitable burrowing owl habitat. In addition, impacts to jurisdictional features would be eliminated. During construction, this alternative would result in a reduction of impacts compared to the Proposed Project, and impacts would be less than significant after mitigation, as under the Proposed Project.

This alternative would operate similar to existing conditions, with reduced impacts compared to the Proposed Project. However, this alternative would not implement restoration efforts across the entire ESHA (upstream, middle, and downstream) since a portion of the restoration efforts would be implemented in later phases. As discussed in Chapter 3, *Project Description*, Phase 1 would include weed abatement, invasive species control, bank stabilization, and erosion controls in the upstream and downstream areas. Additionally, only the existing JCES campus within the 100 feet of the ESHA would be demolished. Other existing structures within 100 feet of the ESHA would remain, such as the bus barn and surface parking. Therefore, this alternative would not result in the full beneficial impacts of restoring the ESHA.

7.6.3.4 CULTURAL RESOURCES

Alternative 2 would result in less overall construction activities, including excavation, grading, and other earthwork. Therefore, the potential to encounter subsurface archaeological resources would be lower than the Proposed Project. Similar to the Proposed Project, Mitigation Measure CUL-1 would be required to reduce impacts to less than significant. This alternative would slightly reduce the impact to cultural resources compared to the Proposed Project.

7.6.3.5 ENERGY

This alternative would overall result in less construction compared to the Proposed Project and therefore less energy consumption during construction. Under Alternative 2, green building design features and energy and water-efficiency measures would be limited to new Buildings C and D. Other buildings on campus would operate similar to existing conditions. Therefore, it would be anticipated that operational energy demand would be more than the Proposed Project. This alternative would result in the same student enrollment capacity and staffing as the Proposed Project; therefore, transportation energy during operation would be the same as the Proposed Project's less-than-significant impacts. This alternative would result in similar operational energy impacts as the Proposed Project. Overall energy impacts from Alternative 2 would likely be similar when compared to the Proposed Project's less-than-significant impacts.

7.6.3.6 GEOLOGY AND SOILS

Alternative 2 would occur on the same Project Site and would be subject to the same geologic hazards as the Proposed Project. This alternative would not cause substantial adverse effects involving ground shaking and landslides. Similar to the Proposed Project, this alternative would result in a less-than-significant impact regarding soil stability and expansive soils with the incorporation of Mitigation Measure GEO-1. This alternative would replace a portion of the Proposed Project's septic system. Overall earthwork and potential erosion and loss of topsoil would be reduced under this alternative compared to the Proposed Project.

This alternative would involve less earthwork, which would reduce the possibility of encountering paleontological resources. Nevertheless, this alternative would have the potential to impact unknown paleontological resources and would be required to implement Mitigation Measure GEO-2 to reduce impacts to a less-than-significant level.

Overall, the impact of Alternative 2 related to geology and soils would be less than the Proposed Project.

7.6.3.7 GREENHOUSE GAS EMISSIONS

Under this alternative, only Buildings C and D would be constructed. During construction, this alternative would generate less GHG emissions. During operation, only Buildings C and D would meet the latest CALGreen standards and implement energy-efficiency and water-efficiency and conservation features. Other buildings would operate similar to existing conditions. Therefore, this alternative would be expected to result in slightly greater energy demand compared to the Proposed Project. GHG emissions generated from vehicle trips during operation would be similar to the Proposed Project since student enrollment and staffing would be the same. This alternative would result in similar operation-related GHG emissions as the Proposed Project, since both the alternative and the Proposed Project would have the same enrollment capacity and staffing. Overall, this alternative would result in slightly less GHG emissions compared to the Proposed Project's less-than-significant impacts.

7.6.3.8 HAZARDS AND HAZARDOUS MATERIALS

Similar to the Proposed Project, construction of Alternative 2 would involve the regular use of some typical household hazardous materials, such as vehicle fuels, lubricants, greases, and transmission fluids in construction

equipment, and paints and coatings in building construction. This alternative would decrease the amount of potentially hazardous materials used and encountered during construction. Alternative 2 occurs on the same site as the Proposed Project and would have the same student enrollment capacity, staffing, and use of the Proposed Project, therefore, this alternative would result in similar impacts associated with interference with an evacuation plan and wildland fires. Overall, this alternative would result in slightly reduced impacts compared to the Proposed Project.

7.6.3.9 HYDROLOGY AND WATER QUALITY

This alternative results in less construction compared to the Proposed Project and would therefore reduce the possibility of water quality impacts during construction. Similar to the Proposed Project, this alternative would be required to comply with all applicable local, state, and federal regulations governing water quality, such as a National Pollutant Discharge Elimination System (NPDES) Construction General Permit and incorporate best management practices (BMPs). This alternative would only restore a portion of the ESHA and would only install stormwater infrastructure in Drainage Management Area (DMA) A, B, and C. During operation, similar to the Proposed Project, this alternative would be required to implement operational BMPs to treat and retain stormwater on-site prior to discharge to ESHA and Morning View Drive. Parking Lot F would not be developed under this alternative, which would slightly decrease impervious surfaces compared to the Proposed Project. Overall, this alternative would result in a slight reduction of hydrology and water quality impacts compared to the Proposed Project's less-than-significant impacts.

7.6.3.10 LAND USE AND PLANNING

This alternative would only redevelop and modernize a portion of the Project Site. Similar to the Proposed Project, this alternative would develop school uses on a site that is already used for school uses. This alternative would implement the same development standards for Buildings C and D as the Proposed Project. This alternative would not conflict with the Malibu General Plan Land Use Element, Malibu Local Coastal Program (LCP), nor the Malibu Municipal Code. As such, this alternative would result in similar less-than-significant impacts as the Proposed Project.

7.6.3.11 NOISE

Alternative 2 results in less construction than the Proposed Project, and therefore, construction noise would be reduced compared to the Proposed Project. Nevertheless, this alternative would also be required to implement Mitigation Measure N-1 for construction noise. Since this alternative would not include Phases 3 and 4, the topography issues discussed in Section 5.11 (residences on Via Cabrillo in relation to Phase 4 construction on the west end and on Morning View Drive in relation to proposed Bus Barn construction are higher in elevation) would not occur, and the use of temporary noise barriers would be effective in reducing construction noise below the threshold of 80 A-weighted decibels (dBA) equivalent continuous sound level (L_{eq}) at nearby sensitive receptors. With implementation of Mitigation Measure N-1 under this alternative, construction noise impacts would be reduced to a less-than-significant level, and the significant and unavoidable impact would be avoided.

Since this alternative would not change the location and operation of the existing bus barn, Mitigation Measure N-2 for the operational noise of the bus barn would not be implemented. Additionally, since this alternative would not add Parking Lot F, operational traffic noise impacts associated with Parking Lot F would be eliminated. Overall, this alternative would result in reduced construction and operational noise impacts compared to the Proposed Project.

7.6.3.12 PUBLIC SERVICES

This alternative would have the same enrollment capacity and staffing as the Proposed Project. Therefore, this alternative would result in similar less-than-significant impacts to fire protection and police services as the Proposed Project.

7.6.3.13 RECREATION

The Proposed Project includes improvements to publicly available recreational facilities on District-owned property, such as the middle school gymnasium and fitness center and high school gymnasium. The Proposed Project would also construct new shared facilities, such as an aquatics center/field house, pool, and the upper field house. The Proposed Project would also construct two new tennis courts and extend pedestrian trails that would connect to the larger trail system around the Equestrian Park and hills. Under the Phases 1 and 2 Only Alternative, none of the new recreational opportunities under the Proposed Project would be improved. Existing recreational facilities on-site would remain. Additionally, this alternative would have the same enrollment capacity and staffing as the Proposed Project. Therefore, this alternative would not include recreational facilities or construction or expansion of recreational facilities that might result in an adverse physical effect on the environment and impacts would be less than the impacts of the Proposed Project.

7.6.3.14 TRANSPORTATION

This alternative would construct Parking Lot D drop-off/pick-up and Parking Lot C and would not construct Parking Lot F. Pedestrian improvements similar to existing conditions would remain, such as pedestrian access to the campus along Morning View Drive. However, this alternative would not develop new pedestrian facilities that would connect to the walking trails around Equestrian Park and surrounding hills. This alternative would provide pedestrian facilities to a lesser degree than the Proposed Project.

This alternative would have the same enrollment capacity and staffing as the Proposed Project (and existing conditions). Therefore, vehicle miles traveled (VMT) and total vehicle trips under this alternative would be less than significant, as with the Proposed Project. However, this alternative would eliminate the 126 vehicle trips along Clover Heights Avenue south of Harvester Road associated with Parking Lot F and would redirect these vehicle trips to Morning View Drive to other existing and proposed parking lots on-site. Vehicle trips along Clover Heights Avenue and Morning View Drive would operate more similar to existing conditions than the Proposed Project.

Alternative 2 would still require Mitigation Measures T-1, T-2, and T-3 during construction of Phases 1 and 2. Additionally, this alternative would still require Mitigation Measure T-4 for operation. Overall, this alternative results in slightly reduced impacts compared to the Proposed Project.

7.6.3.15 UTILITIES AND SERVICE SYSTEMS

Compared to the Proposed Project, this alternative would only construct buildings C and D, and would only install DMAs A through C and septic tanks 1 and 2. Therefore, this alternative would result in less on-site infrastructure improvements. Since student enrollment and staffing would remain the same under this alternative, operational utility demand (e.g., water, wastewater, and solid waste) would remain the same as the Proposed Project. Therefore, this alternative results in similar impacts compared to the Proposed Project.

7.6.3.16 WILDFIRE

This alternative occurs on the same Project Site as the Proposed Project (in a Very High Fire Hazard Severity Zone) and would result in less new building square footage and site improvements. Under this alternative, only a portion of the ESHA would be restored to include weed abatement, invasive plant control, implementation of erosion prevention and bank stability, and planting of fire-resistant plants. This alternative would result in the same enrollment capacity and staffing as the Proposed Project. As with the Proposed Project, this alternative would be required to comply with the California Department of Forestry and Fire Protection (CAL FIRE) and Los Angeles County Fire Department (LACoFD) requirements. This alternative would result in similar wildfire impacts during construction as compared to the Proposed Project and would also be required to adhere to Mitigation Measure W-1. Overall, wildfire impacts would be similar to the Proposed Project's less-than-significant impacts.

7.6.4 Conclusion

Alternative 2 would lessen the Proposed Project's less-than-significant impacts with and without mitigation for aesthetics, air quality, biological resources, cultural resources, energy, GHG emissions, hazards and hazardous materials, hydrology and water quality, noise, recreation, and transportation. This alternative would result in similar impacts as the Proposed Project related to geology and soils, land use and planning, public services, utilities and service systems, and wildfire. Alternative 2 would eliminate the significant and unavoidable aesthetic (light and glare) impacts as the pool and associated pool lighting would not be developed. With Mitigation Measure N-1, Alternative 2 would reduce the Proposed Project's significant and unavoidable impact to a less-than-significant level.

Alternative 2 would meet Objectives 1, 8, and 9 and would only partially meet Objectives 2, 3, 6, 7, and 10 since it would only develop a portion of the Proposed Project. This alternative would not result in the full benefits of improving learning by replacing undersized and inflexible facilities with larger flexible spaces (Objective 2), providing enhanced support spaces (Objective 3), and improving access/circulation and parking on-site (Objective 6). Additionally, since this alternative would only restore a portion of the ESHA and would not replace most of the existing, older buildings with new high-quality buildings, this alternative would not fully develop a campus that respects the natural environment through high design that is complementary to the natural landscape (Objective 7) and would not remove hazardous buildings and structures (Objective 8). The Phase 1 and 2 Only Alternative would not meet Objectives 4 and 5, since arts and athletic improvements and the reorganization of open space and intercampus circulation are largely included in Phases 3, 4a, and 4b.

7.7 ALTERNATIVE 3: ELIMINATION OF PARKING LOT F

7.7.1 Description

Under Alternative 3, the Proposed Project would still be developed as described with the exception of Parking Lot F on the north end of the MMHS campus. This alternative results in 14 fewer vehicle parking spaces compared to the Proposed Project. Overall ground disturbance of approximately 5,600 square feet associated with Parking Lot F would be eliminated. Parking to serve the existing sports fields on the north side of the campus, especially for after-school programmed activities, would be from Lots D and E, and they would be accessed similar as in existing conditions. Clover Heights Avenue would continue to remain limited only to pedestrian access with locked gates during school hours. Operational use of the fields would be the same during the Proposed Project and existing conditions.

7.7.2 Relationship to Project Objectives

Alternative 3, Elimination of Parking Lot F, would fully meet all project objectives, except for Objective 6, improve access, circulation, and drop-off and increase on-campus parking, which it would meet to a lesser extent compared to the Proposed Project.

7.7.3 Comparative Analysis of Environmental Effects

7.7.3.1 AESTHETICS

Since Alternative 3 would largely result in the same buildout as the Proposed Project, it would have similar impacts as the Proposed Project related to scenic vistas, scenic resources, and scenic quality. Compared to the Proposed Project, this alternative would have a slightly reduced impact related to light and glare, since it would not construct Parking Lot F and would therefore not install associated parking lot lights or have cars parked on-site at this location. However, the significant and unavoidable light and glare impact would remain. Overall, aesthetic impacts would be similar to the Proposed Project's less-than-significant impacts.

7.7.3.2 AIR QUALITY

Construction of Parking Lot F would not occur under Alternative 3; therefore, air quality impacts during construction would be slightly reduced compared to construction of the Proposed Project. However, this alternative largely results in the same buildout as the Proposed Project with the exception of Parking Lot F; this alternative would still be required to adhere to Mitigation Measure AQ-1 that addresses pollutants during construction. Air quality impacts during operation of this alternative would remain the same compared to the Proposed Project. Alternative 3 would only marginally reduce the impacts to air quality compared to the Proposed Project due to the slightly smaller development, and air quality impacts associated with this alternative would be similar to that of the Proposed Project.

7.7.3.3 BIOLOGICAL RESOURCES

With the elimination of Parking Lot F, the northern portion of the Project Site would remain in its existing condition, which consists of disturbed undeveloped land and ornamental/developed land. Since this alternative would result in a minor reduction of impacts to wildlife habitat (e.g., potentially suitable burrowing owl habitat) and vegetation such as trees, this alternative would slightly reduce the biological impacts compared to the Proposed Project during construction and operation.

7.7.3.4 CULTURAL RESOURCES

No construction activities would occur within the Parking Lot F boundaries under Alternative 3. Therefore, there would be no impact to potential cultural and historic resources within the area of Parking Lot F, but there would still be potential impacts for the remainder of the proposed development. Similar to the Proposed Project, Mitigation Measure CUL-1 would be required. Alternative 3 would slightly reduce the impact to cultural resources compared to the Proposed Project.

7.7.3.5 ENERGY

Under Alternative 3, energy consumption during construction would be slightly reduced, since this alternative would eliminate the construction of Parking Lot F. During operation, this alternative would not affect transportation energy and fuel consumption since cars that would park at Parking Lot F would park elsewhere on-site. Electricity demand under this alternative would slightly decrease compared to the Proposed Project since lights associated with Parking Lot F will no longer be constructed and used. Therefore, electricity demand and fuel consumption during operation would be marginally reduced compared to the Proposed Project. Overall, energy impacts would result in similar impacts compared to the Proposed Project's less-than-significant impact.

7.7.3.6 GEOLOGY AND SOILS

Alternative 3 would occur on the same Project Site and would be subject to the same geologic hazards as the Proposed Project. This alternative would not cause substantial adverse effects involving ground shaking and landslides. Similar to the Proposed Project, this alternative would result in a less-than-significant impact regarding soil stability and expansive soils with the incorporation of Mitigation Measure GEO-1. This alternative would construct the same septic system as the Proposed Project. Similar to the Proposed Project, this alternative would have the potential to encounter unknown paleontological resources and would be required to implement Mitigation Measure GEO-2. No construction activities, including grading, would occur at the Parking Lot F location. Reducing construction at this location would slightly reduce the impacts associated with geology and soils, such as soil erosion and loss of topsoil, but since Parking Lot F is only one component to a large-scale project, the overall geology and soils impacts would be similar to the Proposed Project.

7.7.3.7 GREENHOUSE GAS EMISSIONS

Under Alternative 3, no construction activities would occur in developing Parking Lot F. During construction, this alternative would slightly decrease energy consumption and GHG emissions compared to the Proposed Project since less construction would occur. During operation, this alternative would result in slightly less energy

demand and GHG emissions since no lighting for Parking Lot F would be installed or used. Overall, elimination of Parking Lot F would not greatly affect on-site energy use during operation of the Proposed Project since the majority of the Proposed Project would be constructed. Since eliminating Parking Lot F would only be a small portion of the overall construction activities, the impacts associated with GHG emissions would be similar to the Proposed Project's less-than-significant impact.

7.7.3.8 HAZARDS AND HAZARDOUS MATERIALS

Similar to the Proposed Project, construction of this alternative would involve the use of some hazardous materials, such as vehicle fuels, lubricants, greases, and transmission fluids in construction equipment, and paints and coatings in building construction. Construction and operation of this alternative would be similar to the Proposed Project and would result in similar impacts related to routine transport, use, and disposal of hazardous materials and accidental release of hazardous materials. This alternative occurs on the same site as the Proposed Project and would have the same capacity and use of the Proposed Project; therefore, this alternative would result in similar impacts associated with interference with an evacuation plan and wildland fires. Overall, Alternative 3 would result in less-than-significant impacts and similar to the Proposed Project.

7.7.3.9 HYDROLOGY AND WATER QUALITY

Alternative 3 would result in a similar buildout as compared to the Proposed Project with the exception that Parking Lot F would not be constructed. Similar to the Proposed Project, this alternative would be required to comply with all applicable local, state, and federal regulations governing water quality, such as NPDES Construction General Permit and incorporate BMPs. This alternative would still rehabilitate the ESHA and change drainage patterns on-site consistent with the proposed DMAs and applicable federal, state, and local regulations. However, this alternative would slightly decrease the amount of impervious surface on the Project Site compared to the Proposed Project. Since Parking Lot F is only a single component of construction for the Proposed Project, eliminating the parking lot would only slightly reduce the impacts to hydrology and water quality. Overall, hydrology and water quality impacts would be similar to the Proposed Project's less-than-significant impacts.

7.7.3.10 LAND USE AND PLANNING

The majority of the Proposed Project would be constructed under this alternative, with the exception of Parking Lot F. Because Parking Lot F is a single component of the Proposed Project and is located within the school boundaries, Alternative 3 would not change the impacts associated with land use and planning, and impacts would be less than significant and similar to the Proposed Project.

7.7.3.11 NOISE

Elimination of Parking Lot F would eliminate noise from the construction and use of this parking lot. Construction and operational noise would still be generated similar to the Proposed Project for the other components of the Proposed Project. Since Parking Lot F is eliminated, noise generated from the use and vehicles associated with this parking lot would shift to another parking lot on campus. Under Alternative 3, noise on the north part of the campus would be more similar to existing conditions than the Proposed Project.

Similar to the Proposed Project, this alternative would need to implement identified Mitigation Measures N-1 and N-2 during construction and operation of the Proposed Project. Overall, this alternative would result in slightly lower noise impacts during construction and operation compared to the Proposed Project, though the impact would remain significant and unavoidable, similar to the Proposed Project.

7.7.3.12 PUBLIC SERVICES

Alternative 3 would have the same enrollment capacity and staffing as the Proposed Project and would have the same buildout as the Proposed Project, with the exception of Parking Lot F. Therefore, this alternative would result in similar impacts to public services as the Proposed Project.

7.7.3.13 RECREATION

Alternative 3 would have the same enrollment capacity and staffing as the Proposed Project. Additionally, this alternative would have the same buildout as the Proposed Project, with the exception of Parking Lot F. Therefore, this alternative would result in similar impacts to recreation as the Proposed Project.

7.7.3.14 TRANSPORTATION

Alternative 3 would have the same buildout (with the exception of Parking Lot F) and enrollment capacity and staffing as the Proposed Project. Therefore, VMT and total vehicle trips under this alternative would be the same as the Proposed Project. However, this alternative would eliminate the 126 vehicle trips along Clover Heights Avenue south of Harvester Road associated with Parking Lot F. These trips would be redistributed to other parking lots on-site, and vehicle trips along Clover Heights Avenue would operate similar to existing conditions. Redistributing these trips to Morning View Drive would be more similar to existing conditions than the Proposed Project. This alternative would still require identified Mitigation Measures T-1 through T-4. Therefore, this alternative results in slightly reduced impacts compared to the Proposed Project.

7.7.3.15 UTILITIES AND SERVICE SYSTEMS

Alternative 3 would develop the same buildings and site improvements (including utility improvements) as the Proposed Project, with the exception of Parking Lot F. Therefore, this alternative results in substantially similar impacts related to utilities and service systems as the Proposed Project.

7.7.3.16 WILDFIRE

Alternative 3 occurs on the same Project Site as the Proposed Project and would develop the same buildings and site improvements, with the exception of Parking Lot F. Therefore, this alternative results in substantially similar impacts related to wildfire as the Proposed Project. Similar to the Proposed Project, this alternative would be required to implement Mitigation Measure W-1.

7.7.4 Conclusion

Alternative 3 would lessen the Proposed Project's less-than-significant impacts with and without mitigation associated with aesthetics (visual and scenic resources), air quality, biological resources, cultural resources,

energy, noise, and transportation. This alternative would result in similar impacts as the Proposed Project related to geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, public services, recreation, utilities and service systems, and wildfire. The significant and unavoidable impact resulting from aesthetics (light and glare) as well as construction noise would be similar to that of the Proposed Project. This alternative would not fully meet Objective 6 since it would eliminate 14 parking spaces and would not increase campus parking on-site. This alternative would meet the other objectives for the Proposed Project.

7.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR must identify an "environmentally superior" alternative, and where the No Project Alternative is identified as environmentally superior, the EIR must identify an environmentally superior alternative from the others evaluated. Each alternative's environmental impacts are compared to the Proposed Project and determined to result in either reduced impacts compared to the Project, the same or similar impacts as the Project, or a more severe impact than the Project. Alternative 2 (Development of Phases 1 and 2 Only) was identified as "environmentally superior" to the Proposed Project.

Alternative 2 has the least impact on the environment because it would result in the least construction and it would eliminate enhanced pool lighting that would exceed the City of Malibu Dark Sky Ordinance. Alternative 2 would avoid the significant and unavoidable impact related to construction noise and, with Mitigation Measure N-1, would result in a less-than-significant impact. However, the Phases 1 and 2 Only Alternative would not generate the full environmental enhancements under the Proposed Project, such as energy- and water-efficient buildings, water conservation practices, full ESHA restoration, and recreational opportunities. This alternative would only fully meet Objectives 1, 8, and 9 and would only partially meet Objectives 2, 3, 6, 7, and 10. The Phases 1 and 2 Only Alternative would not meet Objectives 4 and 5.

"Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts" (CEQA Guidelines, § 15126.6[c]). These factors will be considered by the SMMUSD decision makers in determining whether to approve the Proposed Project or one of the alternatives identified.

7.9 REFERENCES

Parsons. 2011, June 15. *School Relocation Analysis*.

7. Alternatives to the Proposed Project

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