4.7 HAZARDS, HAZARDOUS MATERIALS, AND WILDFIRE

This section of the EIR presents an analysis of the potential hazards, hazardous materials and wildfire impacts associated with development and implementation of the proposed Master Plan, including five near-term development components (Project). This section presents the environmental setting, regulatory framework, impacts of the Project on the environment, and proposed measures to mitigate significant or potentially significant impacts, if any such impacts are identified.

Resources related to hazards and hazardous materials used to prepare this section include U.S. Army Corps of Engineers (ACOE) documents, U.S. Army Base Realignment and Closure (BRAC) documents, pre-demolition hazardous materials survey reports, a Phase I Environmental Site Assessment (ESA), previous CEQA documents, records on or near the campus listed in GeoTracker and EnviroStor (online databases maintained by the Regional Water Quality Control Board [RWQCB] and Department of Toxic Substances Control [DTSC], respectively), and fire hazards maps prepared by the California Department of Forestry and Fire Protection (CAL FIRE).

An agency comment related to wildfire was received during the public scoping period in response to the original Notice of Preparation (NOP), and requested that CSUMB identify whether the EIR should evaluate wildland fire maintenance and fire protection services. No additional public and agency comments related to hazards, hazardous materials and wildfire were received during the public scoping period in response to the Revision to Previously Issued NOP. For a complete list of public comments received during the public scoping periods refer to Appendix B.

4.7.1 Environmental Setting

4.7.1.1 Study Area

The study area for the evaluation of impacts related to hazards and hazardous materials includes the 1,396-acre CSUMB campus, located in the northwestern portion of the former 28,000-acre Fort Ord military base. A Phase I ESA has not been completed for the entire CSUMB campus; however, Phase I reports were completed in 2016 for the proposed Monterey Bay Charter School, located in the eastern portion of the Main Campus, and in 2012 for the Promontory Student Housing, located in the northern portion of the Main Campus. One-mile radius environmental database searches were completed in association with those Phase I reports, which includes all of the CSUMB Main Campus.

4.7.1.2 Campus Setting

Hazardous Materials

Definitions and Overview

As defined in the California Health and Safety Code § 25501, "hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant hazard to human health and safety, or to the environment, if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons, or harmful to the environment if released into the workplace or the environment. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, or contaminated, or is being stored prior to proper disposal.

California Code of Regulations (Cal. Code Regs.), Title 22, Chapter 11, Article 2, § 66261.10 provides the following definition for hazardous waste:

> [A] waste that exhibits the characteristics may: (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed or otherwise managed.

Substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances (e.g., gasoline, hexane, and natural gas) are hazardous because of their flammable properties. Corrosive substances (e.g., strong acids and bases such as sulfuric (battery acid or lye) are chemically active and can damage other materials or cause severe burns upon contact. Reactive substances (e.g., explosives, pressurized canisters, and pure sodium metal, which react violently with water) may cause explosions or generate gases or fumes.

Other types of hazardous materials include radioactive and biohazardous materials. Radioactive materials and wastes contain radioisotopes, which are atoms with unstable nuclei that emit

ionizing radiation to increase their stability. Radioactive waste mixed with chemical hazardous waste is referred to as "mixed wastes." Biohazardous materials and wastes include anything derived from living organisms, which may be contaminated with disease-causing agents, such as bacteria or viruses.

In some cases, past industrial or commercial activities on a site may have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination. Hazardous materials may also be present in building materials and released during building demolition activities. If improperly handled, hazardous materials and wastes can cause public health hazards when released to the soil, groundwater, or air. The four basic exposure pathways through which an individual can be exposed to a chemical agent include inhalation, ingestion, bodily contact, and injection. Exposure can come as a result of an accidental release during transportation, storage, or handling of hazardous materials. Disturbance of subsurface soil during construction can also lead to exposure of workers or the public from stockpiling, handling, or transportation of soils contaminated by hazardous materials from previous spills or leaks.

Regulatory Records Review

California Government Code § 65962.5 requires the California Environmental Protection Agency (Cal-EPA) to compile a list of hazardous waste and substances sites (Cortese List). While the Cortese List is no longer maintained as a single list, the following databases provide information that meet the Cortese List requirements:

1. List of Hazardous Waste and Substances sites from the DTSC EnviroStor database (Cal. Health and Safety Codes §§ 25220, 25242, 25356, and 116395);
2. List of Leaking Underground Storage Tank (LUST) Sites by County and Fiscal Year from the State Water Resources Control Board (Water Board) GeoTracker database (Cal. Health and Safety Code § 25295);
3. List of solid waste disposal sites identified by the Water Board with waste constituents above hazardous waste levels outside the waste management unit (Cal. Water Code § 13273(e) and Cal. Code Regs., Title 14, § 18051);
4. List of "active" Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the Water Board (Cal. Water Code §§ 13301 and 13304); and
5. List of hazardous waste facilities subject to corrective action pursuant to Cal. Health and Safety Code § 25187.5, identified by DTSC.

A Phase I ESA has not been completed for the entire CSUMB campus; however, as previously discussed, Phase I reports were completed in 2016 for the proposed Monterey Bay Charter School, located in the eastern portion of the Main Campus, and in 2012 for the Promontory

Student Housing, located in the northern portion of the Main Campus. The objective of Phase I ESAs is to identify, to the extent feasible, recognized environmental conditions, which are defined by the American Society of Testing and Materials (ASTM Standard E 1527-13) as "the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: 1) due to any release to the environment, 2) under conditions indicative of a release to the environment, or 3) under conditions that pose a material threat of a future release to the environment. The Phase I reports include an environmental database search that provides a listing of sites within an approximately 1-mile radius of these development sites that are known to be chemical handlers, hazardous waste generators, or polluters. This 1-mile radius includes all of the CSUMB Main Campus (Denise Duffy & Associates, Inc. 2016; Andersen Environmental 2012).

In addition, Environmental Baseline Surveys (EBSs) were completed by the Department of Army (Army) for the CSUMB campus in association with the BRAC process for the former Fort Ord Army Base. An EBS is similar to a Phase I ESA, in that the potential for subsurface contamination is determined based on a site survey, prior site use, and available remedial investigations/feasibility studies completed in association with the former Fort Ord's Installation Restoration Program (IRP). The IRP addresses potential dangers posed by sites as the result of the past handling or disposal of hazardous materials by the Department of Defense (U.S. Army 1993). In the event that the EBS indicates that subsurface soil and/or groundwater contamination is present, Site Characterizations (i.e., soil and/or groundwater sampling and analysis) are completed and remediation completed, as necessary. This investigative process was conducted in association with the Findings of Suitability to Transfer (FOST) process, which was required of the Army to document that the CSUMB property is environmentally suitable for transfer under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Department of Defense (DOD) FOST Guidance (USACE 2018).

CSUMB is located on a portion of the approximately 28,000-acre former Fort Ord Army Base, of which 24,492 acres are listed on the DTSC's EnviroStor's Cortese Hazardous Waste and Substances Sites List.[1] Fort Ord was established in 1917, was used as training and staging facilities for troops, and was a basic training center from 1945 to 1975. Cavalry, field artillery, and infantry units used portions of the base for maneuvers, target ranges, and other purposes. The former Fort Ord was selected in 1991 for closure under the BRAC Act, and it was officially closed in 1994. At former Fort Ord, both soil and groundwater have been contaminated with hazardous substances and wastes. These include industrial solvents, heavy metals, pesticides, polycyclic aromatic hydrocarbons (PAHs), explosives residues, and Munitions and Explosives of Concern (MEC) (DTSC 2018).

[1] The DTSC listing does not include 3,336 acres from an early transfer in the Fort Ord Reuse Authority Environmental Services Cooperative Agreement (ESCA) Remediation Program (DTSC 2018).

The former Fort Ord Army Base is listed as a Transfer, Storage, and Disposal Facility and a large-quantity generator of hazardous waste, from at least 1980 to 2006 (Denise Duffy & Associates, Inc. 2016; Andersen Environmental 2013). The former Army base is listed as an active cleanup site, with oversight being completed by the DTSC Site Cleanup Program, the Central Coast RWQCB (Region 3), and the U.S. Environmental Protection Agency (USEPA). The latter is the lead regulatory agency (DTSC 2018).

In 1990, Fort Ord was placed on the federal National Priorities List (NPL) as a result of soil and groundwater contamination. In 1990, a Federal Facility Agreement (FFA) was signed by the Army, USEPA, the DTSC, and the Central Coast RWQCB. Thirty-nine individual sites were initially investigated for soil and groundwater contamination under the Army IRP. In 2000, an agreement was signed between the Army, USEPA, and DTSC to evaluate munitions and MEC at the former Fort Ord and subject to the FFA. The Military Response Program addresses munitions sites that contain or potentially contain MEC (DTSC 2018).

The NPL listing and a federal facilities agreement required the Army to perform the Superfund cleanup process prior to the conveyance of any land. As previously stated, FOSTs have been prepared by the Army to document that the CSUMB property is environmentally suitable for transfer under CERCLA and DOD FOST Guidance. The DTSC issued letters of no further action for the property and the USEPA concurred that all necessary remedial action has been completed. In accordance with CERCLA, the FOSTs for the CSUMB campus property demonstrate that either the property is uncontaminated or that all necessary remediation has been completed or is in place and operating properly and successfully. The FOSTs include documentation of the presence of and/or removal of munitions and MEC. Per these FOSTs, in the event CSUMB grading and construction contractors discover any ordnance,[2] they would be required not to attempt to remove or destroy it, but rather to immediately notify the local Police Department and the Directorate of Law Enforcement at the Presidio of Monterey. Competent U.S. Army Explosive Ordnance personnel will be dispatched promptly to dispose of such ordnance properly at no expense to CSUMB.

Additional information about various sources of contamination or potential contamination is provided below.

Groundwater Contamination

In 1986, off-base groundwater was found to be contaminated with volatile organic compounds (VOCs), including tetrachloride, tetrachloroethylene (PCE), trichloroethylene (TCE), 1,1,1-trichloroethane (TCA), and trans-1,2-dichloroethylene. A former Fort Ord landfill operated

[2] "Ordnance" means military supplies including weapons, ammunition, combat vehicles, and equipment used in connection with such supplies.

north of the East Campus Open Space and west of East Campus Housing from 1956 to 1987 has contributed to the groundwater contamination. The landfill was used for residential and commercial waste, including dried sewage sludge; construction debris; and small amounts of chemical waste, such as paint, oil, pesticides, electrical equipment, ink, and epoxy adhesive (Denise Duffy & Associates, Inc. 2016; DTSC 2018).

In 1990, a network of groundwater monitoring wells was installed throughout the former Fort Ord. Based on groundwater monitoring reports for the former Fort Ord landfill, groundwater occurs at approximately 165 feet below ground surface and flows in a westerly direction, toward the Main Campus. The former landfill has contributed to VOC concentrations in groundwater underlying the northern portion of the Main Campus and the East Campus Housing area (Denise Duffy & Associates, Inc. 2016; DTSC 2018).

A groundwater deed restriction in the form of a groundwater Land Use Covenant (groundwater LUC) has been placed on properties overlying the groundwater contamination plume, including portions of the CSUMB Main Campus and the East Campus Open Space. The deed restriction prohibits the drilling of groundwater extraction or injection wells, or the creation of new groundwater recharge basins/surface water infiltration ponds without closely coordinating with the Army in the restricted area, but allows the Army (or its designated contractor) and the regulatory agencies to permit necessary groundwater monitoring and the installation of pump and treat remediation operations. A DTSC Land Use Covenant (LUC) Reporting Memorandum of Agreement was signed by the campus in 2008 and requires annual reporting on compliance with the groundwater LUC (DTSC et al. 2008). The deed restrictions also require that RWQCB, DTSC, Monterey County Environmental Health Agency, and the USEPA be notified of the discovery of any activities conducted on the site interfering with or adversely affecting any groundwater extraction, treatment, or monitoring installation (DTSC 2018; Denise Duffy & Associates, Inc. 2007, 2016; Andersen Environmental 2012).

The Central Coast RWQCB has concluded that there are no pathways for exposure to the groundwater contamination by property users, given that the groundwater is not used as a drinking water source, a deed restriction applies to the property, and the depth to groundwater is approximately 165 feet below ground surface (Andersen Environmental 2012).

Asbestos-Containing Materials (ACMs)

Because a substantial amount of construction occurred at Fort Ord from the 1940s to the 1960s, the majority of former Fort Ord buildings contain some type of asbestos. The objectives of the former Fort Ord's asbestos management program, which was managed by the U.S. Army Corps of Engineers, were to: 1) identify ACMs in Army-controlled buildings, 2) evaluate the friability, condition, and potential for damage of the ACMs, and 3) implement response actions appropriate

to the findings. An asbestos survey of approximately 350 non-residential buildings (i.e., retail stores, office buildings, lavatories, dining halls, barracks, general purpose buildings, vehicle maintenance and storage, oil storage, bus/taxi stations, and ammunition bunkers) was performed in 1989 and 1990 and found both friable and nonfriable ACMs. Subsequently, from October 1991 to April 1993, a base-wide asbestos survey of an additional 2,689 non-residential and barracks structures was performed and both friable and nonfriable ACMs were found, including in 38 of the non-residential buildings transferred to CSUMB (Denise Duffy & Associates, Inc. 2007). Most residential units were constructed in 1986 and do not contain asbestos. Friable and nonfriable asbestos have been removed from all buildings renovated by the University, as applicable. Existing CSUMB policy is to remove all friable asbestos prior to renovation, deconstruction, or demolition of buildings (Denise Duffy & Associates, Inc. 2007).

In 2012, additional ACM surveys were completed in the former Hammerheads residential area, located in the eastern portion of the Main Campus (Vista Environmental Consulting 2012). ACMs were observed and detected (through sampling) throughout the housing development and may be present in subsurface insulated piping and/or cement utility piping in the five remaining Hammerhead buildings left on campus. This area was properly abated for ACM in advance of demolition of this area, as is required by the State University Administrative Manual (see Section 4.7.2.2 for additional information), and demolition of this area is now complete (Spear pers. com. 2019). Additionally, in 2019, limited asbestos surveys were performed on 50 occupied buildings on campus to determine the presence of ACMs in these buildings. Based on the results of these surveys, some existing buildings do have ACMs present. These buildings would be properly abated prior to any demolition or renovation, as indicated above.

Lead-Based Paint (LBP)

The former Fort Ord implemented an LBP management program, the objectives of which were: 1) to identify and control LBP and lead-contaminated dust in target facilities, and 2) eliminate LBP in reuse properties that include buildings constructed prior to 1978 and intended to be used for residential purposes. LBP surveys of pre-1978 housing areas were conducted by the U.S. Army Environmental Hygiene Agency. Based on the surveys, LBP is present in some campus buildings (Denise Duffy & Associates, Inc. 2007).

In 2012, additional LBP surveys were completed in the Hammerheads residential area, located in the eastern portion of the Main Campus (Vista Environmental Consulting 2012). LBP was detected (through an X-Ray Fluorescence direct read spectrum analyzer) throughout the housing development. This area was properly abated for LBP in advance of demolition of this area, as is required by the State University Administrative Manual (see Section 4.7.2.2 for additional information), and demolition of this area is now complete (Spear pers. com. 2019). Additionally, in 2019, limited lead surveys were performed on 50 occupied buildings on campus to determine

the presence of lead. Based on the results of these surveys, some existing buildings do have lead present. These areas would be properly abated prior to any demolition or renovation, as indicated above.

Polychlorinated Biphenyls (PCBs) and Universal Waste

PCBs have been widely used as coolants and lubricants in transformers, capacitors, and other electrical equipment like fluorescent light ballasts. EPA considers PCBs to be probable cancer-causing chemicals in humans. PCBs and PCB-contaminated equipment that will be disposed of must be stored in a hazardous storage facility. Fluorescent light ballasts containing PCBs have historically been present in older buildings on the CSUMB campus.

Universal waste is hazardous waste that is present in common household products, such as non-incandescent lamps, batteries, mercury-containing devices, and electronic waste. In general, materials managed as universal waste can be stored for a year and are not required to be shipped with a manifest. In addition, universal wastes do not need to be counted toward a generator's category for the purpose of determining whether it is a very small generator, small quantity generator, or large quantity generator. However, the universal waste regulations do require that the materials be managed in a way to prevent releases to the environment.

In 2012, a hazardous materials survey was completed in the Hammerheads residential area, located in the eastern portion of the Main Campus (Vista Environmental Consulting 2012). Devices with potential hazardous materials were visually identified during the survey walk-through and their quantities were estimated and recorded. This area was properly abated for PCBs in advance of demolition of this area, as is required by the State University Administrative Manual (see Section 4.7.2.2 for additional information), and demolition of this area is now complete (Spear pers. com. 2019).

CSUMB Hazardous Materials Use

CSUMB uses various hazardous substances and petroleum products during daily operations, including substances typically used in science laboratories (e.g., acids, bases, solvents, and other reagents and reaction products); fine arts studios (e.g., paints and photo-developing chemicals); and maintenance of buildings, landscaping, and vehicles (e.g., gasoline and diesel fuel, oils and lubricants, antifreeze, cleaners [solvents, corrosives, and detergents], oil-based and latex paints and paint thinners; Freon (refrigerants); and pesticides/herbicides). Hazardous waste generated on campus is temporarily (i.e., less than 90 days) stored in hazardous waste separation and storage lockers, outside occupied buildings, pending off-site disposal at three sites across campus. The lockers are also used to store universal wastes such as fluorescent light tubes and batteries. In addition, campus-generated automotive waste is temporarily stored in a hazardous waste collection area within the vehicle maintenance area, pending off-site disposal. CSUMB also

maintains emergency generators, which are fueled by diesel, propane, and natural gas, with capacities up to 500 gallons. Due to the nature of campus operations, the quantities and types of hazardous materials used on campus at any particular time change rapidly and unpredictably. A list of chemicals currently used at CSUMB is available through the office of Environmental Health, Safety, and Risk Management.

No use of biohazardous materials occurs at CSUMB that requires safety precautions at Biosafety Level 2 or greater.[3] CSUMB does not have a traditional animal research lab (for example, rats, mice bred as research models) with animals in their own animal room, however faculty do conduct outdoor mammalian field research.

At this time, the CSUMB College of Science currently has two gas chromatographs with a sealed radioactive source in Building 13 and an X-ray spectrometer on the 3rd floor of the Chapman Science Center. Small amounts of radioactive materials are also likely present in fire alarm devices around the campus and in the X-ray equipment located in the Health and Wellness Center. Unintentional radiologic hazards under existing conditions come from off-campus sources such as a transportation incident or portable equipment brought onto the campus by others. While either of these scenarios is possible, based on the history of radiologic incidents, the probability of a significant unintentional incident is low (CSUMB 2014).

Transportation of Hazardous Materials within and Adjacent to the Campus

Highway 1 is a major traffic corridor located near the campus. All classes of hazardous materials, excluding some high-level radioactive materials, poisons, and explosives, can be transported on major roadways and highways. Section 31303 of the California Vehicle Code and United States Department of Transportation (DOT) regulations provide restrictions on transportation of hazardous materials through residential areas, thoroughfares, or places where crowds are congregated. Local streets that do not fall into these categories may be used for the transportation of hazardous materials. Railways are also a major mode of transportation for hazardous materials. The closest railway is approximately 4 miles northeast of the East Campus Housing area.

[3] Depending on the potential hazard, one of four biosafety levels describes safety precautions necessary for work involving biological materials. Biosafety Level 1 is for the least hazardous biological agents, which pose minimal or no known potential hazard to laboratory personnel or the environment. Biosafety Level 2 is for agents that are associated with human disease and pose hazards of accidental inoculation, ingestion, or mucous membrane exposure. Biosafety Levels 3 and 4 are for agents that pose more serious risks.

Other Hazards

Former Munitions

Beginning in 1917, portions of the former Fort Ord were used by infantry units for maneuvers, target ranges, and other purposes. Ordnance and explosives (or military munitions) were fired into, fired upon, or used on the facility in the form of artillery and mortar projectiles, rockets/guided missiles, rifle/hand grenades, practice land mines, pyrotechnics, bombs, and demolition materials. As a result, a wide variety of military munitions have been encountered at sites throughout the former Fort Ord (Denise Duffy & Associates, Inc. 2007).

The former Army base is an active DTSC cleanup site with respect to non-munitions contaminated soil and groundwater. Approximately 3,336 acres that contain munitions were excluded from DTSC cleanup, and included in the Fort Ord Reuse Authority Environmental Services Cooperative Agreement (FORA ESCA) project, which is now managed by the City of Seaside, project (DTSC 2018). The FORA ESCA project addresses cleanup/remediation of Army MEC on these 3,336 acres and includes the 322 acres that made up CSUMB's East Campus Open Space. The ESCA grant enabled a non-military entity to complete the MEC cleanup of remnant hazardous safety issues resulting from previous Army munitions training operations.

The Main Campus and East Campus Housing areas are not areas of former munitions use and are suitable for residential and non-residential uses. The 50 westernmost acres of the East Campus Open Space are designated as faculty and staff housing reserve (see Figure 3-6 in Chapter 3, Project Description), and are cleaned to a standard that permits a residential land use (FORA 2017), although such a future use is not proposed nor analyzed as part of the Project.

The remainder of the East Campus Open Space, which was an area of munitions use, is cleaned to a lower standard that does not allow housing or other associated uses to be built. The entire parcel is also subject to a Land Use Controls Implementation Plan Operations and Maintenance Plan and deed restrictions related to groundwater and the movement of soil as a way to protect human health on a former munitions site.

Hazards Associated with Wildland Fires

Fire Hazard Severity Zones

Fire environments are dynamic systems and are influenced by many types of environmental factors and site characteristics. Fires can occur in any environment where conditions are conducive to ignition and fire movement. The three major components of fire environment are vegetation (fuels), climate, and topography. The state of each of these components and their interactions with each other determines the potential characteristics and behavior of a wildfire.

In addition, the type, location, and intensity of a wildfire can affect wildlife, vegetation, air quality, water quality, and slope stability to varying degrees, as discussed below.

A wildfire is a nonstructural fire that can occur in undeveloped areas and spread to urban areas where the landscape and buildings are receptive to ignition. The Urban-Wildland Interface area or WUI is a zone of transition between wildland (undeveloped/unoccupied/"natural" land) and urban development. Communities adjacent to or within WUI areas are at a higher risk for wildfire occurrence. The campus is located within WUI areas designated in the Monterey County Community Wildfire Protection Plan. See Section 4.7.2.4, Local, for additional information about this plan.

Responsibility for wildfire prevention and suppression is shared by Federal, State, and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas (FRAs). The State of California has determined that some unincorporated local county areas with watershed value are of statewide interest and have classified those lands as State Responsibility Areas (SRA), which are managed by CAL FIRE. However, in general, incorporated and unincorporated lands are classified as Local Responsibility Areas (LRA) where the local government or underlying jurisdiction is responsible for wildfire protection. Such services are typically provided by city or county fire departments or fire protection districts but can also be provided by CAL FIRE under contract (CAL FIRE 2021). As indicated in Section 4.12, Public Services, mutual aid agreements also provide for CAL FIRE involvement in LRAs under certain circumstances.

CAL FIRE maps areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors, pursuant to Public Resources Code (PRC) 4201-4204 and Government Code 51175-51189. These areas are referred to as Fire Hazard Severity Zones (FHSZs) and are identified for areas where the state has financial responsibility for wildland fire protection (SRAs), and areas where local governments have financial responsibility for wildland fire protection (LRAs). There are three types of FHSZ mapped for SRAs (moderate, high, and very high), while only lands zoned as very high are identified in LRAs (CAL FIRE 2007). The speed and intensity of potential fires within the area, ability of embers to spread and multiply, loading of fuel, topographic conditions, and local climate all culminate to form the fire hazard severity for an area. Very High Fire Hazard Severity Zones (VHFHSZ) are areas lacking adequate wildland and structural fire protection.

The CSUMB campus, including the Main Campus, East Campus Housing, and East Campus Open Space, is not located within a VHFHSZ (see Figure 4.7-1). The closest LRA VHFHSZ is located approximately 1.6 miles or more to the southeast of East Campus Housing and approximately 3.3 miles to the east of the CSUMB Main Campus. The CSUMB campus is not located within an SRA; the closest SRA is located approximately 5 miles or more away from the campus. The Main Campus and East Campus Housing are located within a LRA (within the jurisdictions of the cities of Marina and Seaside and County of Monterey). Most of the Main Campus is in an undesignated

LRA (non-VHFHSZ); however, the eastern edge of the Main Campus, between Seventh and Eighth Avenues, and a portion of East Campus Housing are designated as a LRA High Fire Hazard Severity Zone under the jurisdiction of the Monterey County Regional Fire District. The East Campus Open Space is located within a Federal Responsibility Area or FRA High Fire Hazard Severity Zone (CAL FIRE 2008). The federal agency responsible for wildfire prevention and suppression in the East Campus Open Space is the Bureau of Land Management (BLM), specifically from the Fort Ord BLM land fire management unit. Now that the East Campus Open Space has transferred from federal to CSU ownership, the agency responsible for prevention and suppression of wildfires may shift; however, CAL FIRE mapping related to responsibility areas has not been modified as of August 2021.

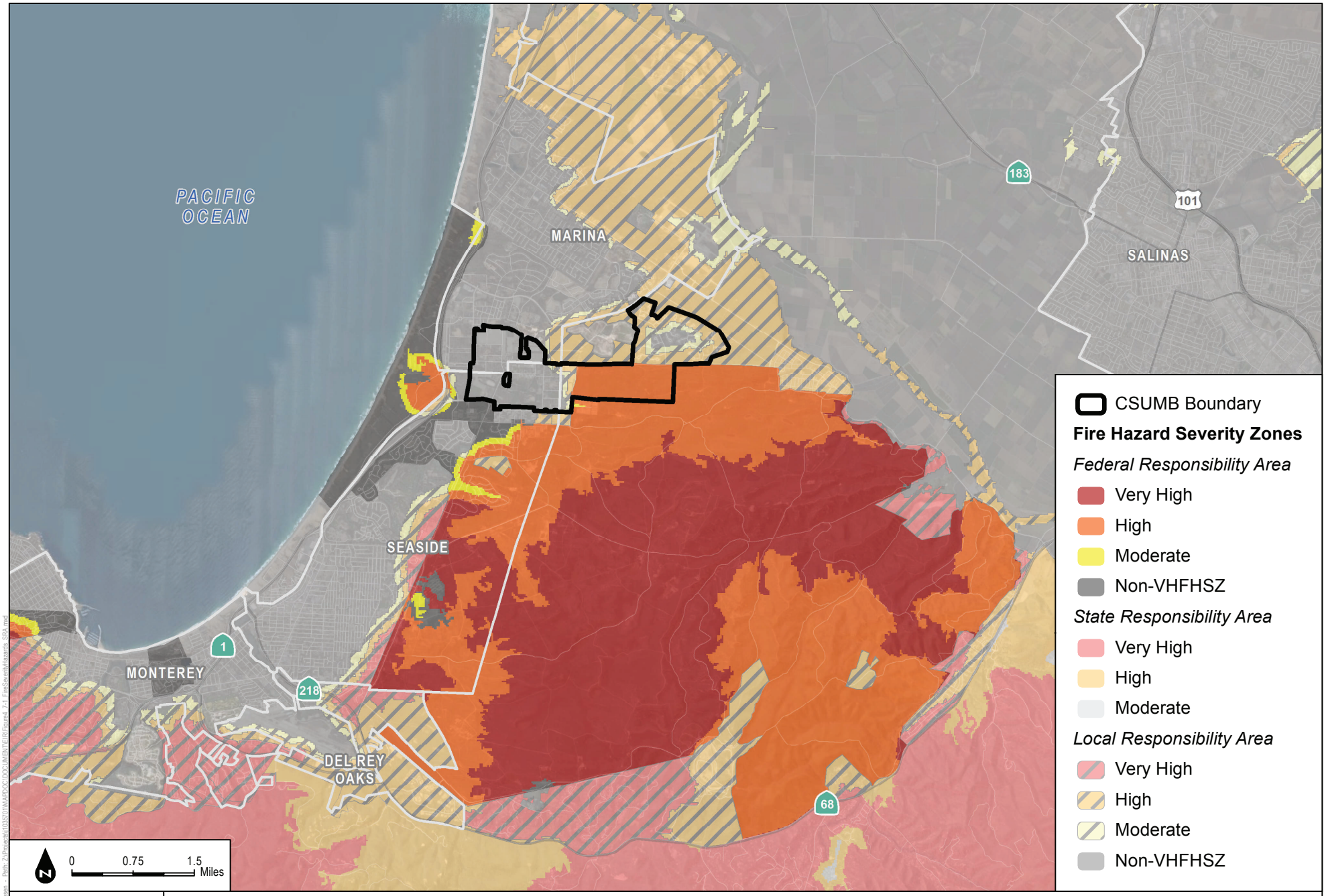
Vegetation

As described in Section 4.3, Biological Resources, the CSUMB campus contains five natural vegetation community/habitat types: coast live oak woodland, central maritime chaparral, central coastal scrub, non-native grassland, and ruderal/disturbed. Several areas of the campus contain a mixture of the five vegetation types. Additionally, some areas of the campus are developed with campus facilities. The vegetation communities and their approximate acreages found on the campus are shown on Figure 4.3-2 and listed in Table 4.7-1.

The Main Campus contains primarily developed and ruderal/disturbed with more limited areas of coast live oak woodland. East Campus Housing contains primarily developed and ruderal/disturbed in the developed areas and is surrounded by coast live oak woodland and other types of vegetation. East Campus Open Space is entirely vegetated and dominated by coast live oak woodland.

Table 4.7-1
Vegetation Types within the CSUMB Campus

Vegetation Type	Total Area (acres)
Developed	526.5
Coast Live Oak Woodland	336.4
Ruderal/Disturbed	327.6
Central Maritime Chaparral	74.9
Central Maritime Chaparral/Coast Live Oak Woodland Mix	46.3
Coast Live Oak Woodland/Non-Native Grassland Mix	23.5
Non-Native Grassland	33.9
Coast Live Oak Woodland/Central Coastal Scrub Mix	10.4
Central Coastal Scrub	8.6
Central Coastal Scrub/Non-Native Grassland Mix	4.6
Central Maritime Chaparral/Central Coastal Scrub Mix	3.1
Total	**1,395.8**



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SOURCE: Cal Fire 2007/2008, Bing Maps 2019

FIGURE 4.7-1

Fire Hazard Severity Zones and Responsibility Areas

CSU Monterey Bay Master Plan EIR

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Topography

Topographical variations affect how wildfire can traverse an area. Fire spreads faster going up slopes. As indicated in Section 4.5, Geology, Soils and Paleontology, the CSUMB campus is characterized by vegetation-stabilized dunes, which represent older coastal dune sand. On the Main Campus, most of the original hummocky dune topography has been graded, resulting in relatively flat to gently sloping topography with slopes of 2 to 5 percent (see Figure 4.5-2), although open space in the southern portion of the campus has retained some of the natural topography. There are localized moderately steep slopes greater than 5 percent present in the northern portion of the campus, such as adjacent to the existing Promontory student housing at 8th Street and Imjin Road. The East Campus Housing area has been partially graded; however, much of the original dune topography remains. The East Campus Open Space Area has mostly retained its natural dune topography, with localized steep slopes. Section 4.5 also indicates that there are no known landslides on or near the campus. Based on the relatively flat to gently sloping topography across the Main Campus, the potential for slope instability is low.

As indicated in Section 4.8, Hydrology and Water Quality, the campus is not located in 100-year or 500-year floodplains. While campus areas located south of Divarty Street and West of General Jim Moore Boulevard are designated as Zone X due to minimal flood risk (<0.2% annual chance of flooding), no proposed structures or development sites are listed for flood risk.

Climate and Weather

Wind, temperature, and relative humidity are the most influential weather elements in fire behavior and susceptibility (National Park Service 2017). Fire moves faster under hot, dry, and windy conditions. Wind may also blow burning embers ahead of a fire, causing its spread. Drought conditions also lead to extended periods of excessively dry vegetation, increasing the fuel load and ignition potential. The Western Regional Climate Center maintains a weather monitoring station in the City of Monterey, just south of the City of Seaside. According to data collected at this weather station, most precipitation is received from November through March, with an average annual rainfall of approximately 20 inches (Western Regional Climate Center 2016). May through September is the driest part of the year and has historically been considered the fire season in California. However, increasingly persistent drought and climatic changes in California have resulted in drier winters, and fires during the autumn, winter, and spring months are becoming more common.

Climate change is expected to influence existing fire-related hazards and vulnerabilities. Changes in precipitation (rain and snowfall), humidity, and temperature have the cumulative effect of increasing conditions where wildfires could occur with greater frequency and severity. According to the Center for Climate and Energy Solutions, drier vegetation and drought conditions have

contributed to a doubling of large fires in the western states between 1984 and 2015, with projections indicating that a 1 degree increase in temperature could result in a substantial increase in fires due to warmer temperatures and drier conditions that help fires spread and make them harder to extinguish (CES 2020).

According to Section 4.2, Air Quality, the semi-permanent high-pressure cell in the eastern Pacific is the basic controlling factor in the climate of the region. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire California coast, which results in prevailing winds to the east and southeast. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The generally northwest–southeast orientation of mountainous ridges tends to restrict and channel the summer onshore air currents. Surface heating in the interior portion of the Salinas and San Benito Valleys creates a weak low pressure that intensifies the onshore air flow. In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. The air flow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is held in place by the Pacific high-pressure cell. During the winter, the Pacific High migrates southward and has less influence.

Infrastructure

Two major electrical transmission lines (a 60-kilovolt [kV] line to the Fort Ord area and a 115-kV line to the Monterey Peninsula) traverse the northern and central portions of the East Campus Open Space, as well as the eastern edge of the East Campus Housing area. An underground natural gas transmission pipeline owned by Pacific Gas & Electric (PG&E) also traverses the East Campus Open Space.

Aircraft Hazards

The airport closest to the CSUMB campus is the Marina Municipal Airport, located approximately 2 miles to the northeast. Based on review of the Marina Municipal Airport Land Use Compatibility Plan (ALUCP), the campus is located approximately 4,500 feet south and southwest of Marina Municipal Airport runway, at the closest point in the East Campus Housing area. The CSUMB campus is located outside of the airport safety zones, but a portion of the campus is located within the airport influence area (Zone 7) of the Marina Municipal Airport. Specifically, East Campus Housing and the northeast portion of the Main Campus are within the airport influence area. The airport accident risk level is considered low within this zone (Coffman Associates, Inc. 2019a).

The Monterey Regional Airport is located approximately 5 miles southwest of CSUMB. CSUMB is not located within a designated aircraft safety zone associated with the Monterey Regional Airport (Coffman Associates 2019b).

Sensitive Receptors

In addition to the campus being occupied by CSUMB's daytime and residential population, nearby schools include the Monterey College of Law, located immediately to the southwest; the Chartwell School, located approximately 0.6 mile to the southwest; George C. Marshall Elementary School, located approximately 0.7 mile to the southwest; the Dual Language Academy of the Monterey Peninsula, located approximately 0.7 mile to the southwest; Marina High School, located approximately 1.0 mile to the north; Crumpton Elementary School, located approximately 1.3 miles to the northeast; and Marina Vista Elementary School, located approximately 1.4 miles to the northeast. In addition, the proposed Monterey Bay Charter School would be located on the CSUMB campus.

4.7.1.3 Site Conditions for Near-Term Development Components

The existing hazards and hazardous materials setting for the near-term development component sites is generally described above. In particular, while the campus, including the near-term development component sites, is located on a Superfund site, the site is either uncontaminated or all necessary remediation has been completed or measures are in place to protect human health and are operating properly and successfully. Additional information is provided below related to specific development conditions on each site. Chapter 3, Project Description provides additional information about the location of each development site.

Student Housing Phase III

The approximately 6.4-acre Student Housing Phase III site is mostly paved with an existing surface parking lot and an unused paved area. The existing surface parking lot is actively used by the campus. The unused paved area, which is the potential staging area, dates back to the former Fort Ord. Vegetation and paved pathways border the development component site on the west and south.

Academic IV

The approximately 4.0-acre Academic IV site is mostly paved or developed. Existing Building 13 (Science Research Lab Annex) and parking lot areas13 and 19 are located on the site. Vegetation and paved pathways border the development site on all sides. The potential staging area on the west is a paved parking lot and the staging area on the east is mostly unpaved and previously contained one of the Hammerheads residential area buildings that was demolished, as previously described.

Student Recreation Center Phases I and II

The approximately 8.5-acre Student Recreation Center Phases I and II site is partially paved or developed. Existing Building 21 (Beach Hall) and Building 23 (Tide Hall), and portions of parking

lots 23 and 508 are located on the site. These buildings are used for various campus administration uses. Vegetation and paved pathways border the development site on the north and west sides of the site. The potential staging area to the south is mostly unpaved and vegetated.

Student Housing Phase IIB

The approximately 7.2-acre Student Housing Phase III site and potential staging area are mostly paved. This unused paved area dates back to the former Fort Ord. Vegetation borders a portion of the entire site on the north, west and south.

Academic V

The approximately 2.7-acre Academic V site is partially paved or developed. Existing Buildings 1, 2, and 3 (Administration, Playa, and Del Mar buildings) and parking lot 18 are located on this site. These buildings are used for administration and academic uses. Vegetation and paved pathways border the development site on all sides. Construction staging for this development component would potentially use the same staging area as that identified for the Student Recreation Center Phases I and II.

4.7.2 Regulatory Framework

Hazardous materials and wastes are identified and defined by federal and state regulations for the purpose of protecting public health and the environment. Hazardous materials contain certain chemical, physical, or infectious properties that cause them to be considered hazardous. Hazardous wastes are defined in the Code of Federal Regulations (C.F.R.) Title 40, Volume 25, Parts 260–265 and in the California Code of Regulations (Cal. Code Reg.), Title 22 Div. 4.5, Chapter 11, Article 1, § 66261. Over the years, the laws and regulations have evolved to deal with different aspects of the handling, treatment, storage, and disposal of hazardous substances.

4.7.2.1 Federal

The following federal regulations pertaining to hazards and hazardous materials would apply to the Project.

Toxic Substances Control Act (1976)

The Toxic Substances Control Act of 1976 (40 U.S.C. Parts 260-265) provides U.S. Environmental Protection Agency (EPA) with authority to require reporting, record-keeping, and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from the Toxic Substances Control Act, including food, drugs, cosmetics, and pesticides.

Comprehensive Environmental Response, Compensation, and Liability Act(1980)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," was enacted by Congress on December 11, 1980 (40 C.F.R. Part 302). CERCLA provides a federal "Superfund" to clean up uncontrolled or abandoned hazardous waste sites, as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, EPA was given power to seek out those parties responsible for any release and ensure their cooperation in the cleanup.

Emergency Planning and Community Right-To-Know Act

Authorized by Title III of the Superfund Amendments and Reauthorization Act (SARA), the Emergency Planning and Community Right-to-Know Act (EPCRA) was enacted by Congress as the national legislation on community safety (40 U.S.C. Parts 350-372). This law is designed to help local communities protect public health, safety, and the environment from chemical hazards. To implement EPCRA, Congress requires each state to appoint a State Emergency Response Commission (SERC). The SERCs are required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee for each district. The project site is located in Administrative, Mutual Aid, and Local Emergency Planning Committee Region II – Coastal (California Governor's Office of Emergency Services 2014). Broad representation by fire fighters, health officials, government and media representatives, community groups, industrial facilities, and emergency managers ensures that all necessary elements of the planning process are represented.

Hazardous Materials Transportation Act

Transportation of hazardous materials is regulated by the U.S. Department of Transportation's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 C.F.R. Parts 100–185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive required training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 C.F.R. Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the

carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

Transportation by rail is regulated per 49 C.F.R. Part 174, Subpart C covers the requirements for marking and placarding of rail cars and the segregation of hazardous materials. Subpart D covers the requirements for handling of placarded rail cars, including position in the train and maximum allowable speed (50 miles per hour for most hazards substances). Subparts E, F, G, J, and K include requirements for transportation of explosives, gases, flammable liquids, poisonous materials, and radioactive materials, respectively. Safety requirements include inspections at every stop, specific training, and train crew knowledge of the rail car contents and location.

Occupational and Safety Health Act

The Occupational Safety and Health Administration (OSHA) is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementing workplace training, exposure limits, and safety procedures for the handling of hazardous substances and hazardous materials (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from "cradle-to-grave" (40 C.F.R. Parts 239-282). This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The Federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste, as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive UST program.

Healthy Forests Restoration Act

In 2003, Congress enacted the Healthy Forests Restoration Act of 2003 (HFRA). The HFRA improves the ability of the United States Secretary of Agriculture and Secretary of Interior to conduct hazardous fuel reduction projects on National Forest System lands and BLM lands, to protect communities, watersheds, and infrastructure from catastrophic wildfire. The provisions of the HFRA include the following: (1) a streamlined National Environmental Policy Act (NEPA) process for hazardous fuel treatments and other activities that would reduce hazardous

fuels on Federal land and, (2) incentives for local communities to prepare Community Wildfire Protection Plans (CWPP) that prioritize where hazardous fuel reduction should take place on Federal lands, and where federal fuel reduction funds should be expended on private lands (e.g., fuel reduction grants).

The Monterey County Community Wildfire Protection Plan (MCCWPP) was prepared pursuant to provisions of the HFRA, recognizing that certain large federal land holdings influence wildfire risk to nearby state, county and private lands, and local communities. See Section 4.7.2.4, Local, for a description of the MCCWPP.

4.7.2.2 State

The following state regulations pertaining to hazards and hazardous materials would apply to the Project.

California Building Code and California Fire Code

The state regulations related to hazardous materials are contained in the California Building Code (Cal. Code Regs. tit. 24, part 2) and state regulations related to fire-safe construction and materials are contained in the California Fire Code (Cal. Code Regs. tit. 24, part 2 9). The California Building Code and California Fire Code standards address, among other elements, proper storage and secondary containment for hazardous materials and fire-safe construction and materials. Use of appropriate design features would help reduce the potential for accidental releases of hazardous materials that could affect occupants or require emergency response services. CSU building officials are responsible for reviewing plans for facilities proposing to use hazardous materials to ensure compliance with applicable California Building Code standards and the State Fire Marshal is responsible for reviewing plans to ensure compliance with applicable California Fire Code standards (CSU 2004).

Certified Unified Program

The California Environmental Protection Agency (CalEPA) implements and enforces a statewide hazardous materials program known as the Certified Unified Program, established by Senate Bill 1802 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs for hazardous materials (Cal. Code Regs. tit. 27, §§15100-15620; Cal. Health and Safety Code §§ 25404-25404.9):

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program

- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control, and Countermeasure Plans
- Hazardous Waste Generator and On-Site Hazardous Waste Treatment Programs
- California Uniform Fire Code, Hazardous Materials Management Plans, and Hazardous Material Inventory Statements

In order to ensure consistency in the administrative requirements, permits, inspections, and enforcement related to the handling and storage of hazardous wastes and materials, CalEPA oversees the Certified Unified Program and certifies local government agencies as Certified Unified Program Agencies (CUPAs) to implement hazardous waste and materials standards. The designated local CUPA in Monterey County is the Monterey County Environmental Health Bureau, which administers state and federal hazardous waste laws locally, including as they relate to CSUMB.

California Hazardous Waste Control Law

California Health and Safety Code Division 20, Chapter 6.5 establishes regulations to protect the public health and environment by assisting generators of hazardous waste in meeting the responsibility for the safe disposal of hazardous waste. The California Hazardous Waste Control Law is administered by the CalEPA and pertains to administering a state hazardous waste program in lieu of the federal RCRA program, pursuant to 42 U.S.C. 6926, as amended. Although the Hazardous Waste Control Law is generally more stringent than RCRA, until EPA approves the California hazardous waste control program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both the state and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Accidental Release Prevention Program

Similar to the Federal Risk Management Program, the California Accidental Release Prevention Program includes additional state requirements and an additional list of regulated substances and thresholds (Cal. Code Regs. tit. 19, §§ 2735.1–2785.1). The intent of the California Accidental Release Prevention Program is to provide first responders with basic information necessary to prevent or mitigate damage to public health, safety, and the environment from the release or threatened release of hazardous materials.

California DTSC and California Highway Patrol Hazard Transportation Program

DTSC administers the transportation of hazardous materials throughout the state. Regulations applicable to the transportation of hazardous waste include California Code of Regulations Title 22, Division 4.5, Chapter 13 and Chapter 29, as well as Division 20, Chapter 6.5, Articles 6.5, 6.6, and 13 of the California Health and Safety Code. The DTSC requires that drivers transporting hazardous wastes obtain a certificate of driver training that shows the driver has met the minimum requirements concerning the transport of hazardous materials, including proper labeling and marking procedures, loading/handling processes, incident reporting and emergency procedures, and appropriate driving and parking rules. The California Highway Patrol also requires shippers and carriers to complete hazardous materials employee training before transporting hazardous materials.

California Health and Safety Code

The handling and storage of hazardous materials is regulated by the California Health and Safety Code Division 20, Chapter 6.95. Under §§ 25500–25543.3, facilities handling hazardous materials are required to prepare a Hazardous Materials Business Plan, which contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.

Health and Safety Code Chapter 6.95 establishes minimum statewide standards for Hazardous Materials Business Plans. Each business shall prepare a Hazardous Materials Business Plan if that business uses, handles, or stores a hazardous material (including hazardous waste) or an extremely hazardous material in quantities greater than or equal to the following:

- 500 pounds of a solid substance
- 55 gallons of a liquid
- 200 cubic feet of compressed gas
- A hazardous compressed gas in any amount (highly toxic with a Threshold Limit Value of 10 parts per million or less)
- Extremely hazardous substances in threshold planning quantities

In addition, in the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by California Health and Safety Code, such facilities are also required to prepare a Risk Management Plan and California Accidental Release Plan. The Risk Management Plan and Accidental Release Plan provide information on the potential impact zone of a worst-case release and require plans and programs designed to minimize the probability of a release and mitigate potential impacts.

California OSHA Hazard Handling Procedures

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (Cal. Code Regs. tit. 8, parts 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

Metallic Discards Act

The Metallic Discards Act (Cal. Pub. Resources §§ 42160–42185), is a state program for the disposal of major appliances, vehicles, and other metallic discards that contain enough metal to be economically feasible to salvage. The Metallic Discards Act was established by the Integrated Waste Management Act (Cal. Pub. Resources § 40000 *et seq.*).

State of California Emergency Plan

On October 1, 2017, Governor Edmund G. Brown Jr. promulgated the 2017 edition of the State of California Emergency Plan, which outlines a state-level strategy to support local government efforts during a large-scale emergency and describes how response to natural or human-caused emergencies occurs in California. In accordance with the California Emergency Services Act (Cal. Govt. Code §§ 8550-8669.7), the State Emergency Plan describes methods for carrying out emergency operations; process for rendering mutual aid; emergency services of governmental agencies; methods of resource mobilization; emergency public information; continuity of government; standardized emergency management system; State of California Emergency Plan and Emergency Functions; and National Incident Management System.

The foundation of California's emergency planning and response is a statewide mutual aid system which is designed to ensure that adequate resources, facilities, and other support is provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation. The California Disaster and Civil Defense Master Mutual Aid Agreement (Cal. Govt. Code §§ 8555–8561) requires signatories to the agreement to prepare operational plans to use within their jurisdiction, and outside their area. These plans include fire and non-fire emergencies related to natural, technological, and war contingencies. The State of California, all State agencies, all political subdivisions, and all fire districts signed this agreement in 1950. See Section 4.7.2.3, CSUMB Plans, for the CSUMB's Emergency Operations Plan.

California Strategic Fire Plan and Unit Strategic Plans

The 2019 Strategic Fire Plan for California (California Fire Plan), prepared by the California Department of Forestry and Fire Protection (CAL FIRE), provides appropriate guidance to provide adequate statewide fire protection of state responsibility areas (CAL FIRE 2019). The Plan provides guidance to local jurisdictions in meeting State goals.

The Unit Strategic Plan San Benito-Monterey is designed to meet the goals set by the California Fire Plan (CAL FIRE 2020). Pre-fire fuel reduction management projects in the plan are designed to reduce costs and losses, especially during periods of severe fire weather, and are identified to address target risk areas. There are no pre-fire projects planned at or near CSUMB, with the closest projects being located along the Highway 68 corridor (CAL FIRE 2020).

Senate Bill 1241 (Kehoe) of 2012

Senate Bill 1241 (Cal. Govt. Code §§ 65040.20 and 66474.02; Cal. Pub. Resources § 21083.01) requires cities and counties to address fire risk in SRAs and Very High Fire Hazard Severity Zones in the safety element of their general plans. The bill also resulted in amendments to the CEQA Guidelines Initial Study checklist to include questions related to fire hazard impacts for projects located in or near lands classified as SRAs and Very High Fire Hazard Severity Zones. In adopting these Guidelines amendments, OPR recognized that generally, low-density, leapfrog development may create higher wildfire risks than high-density, infill development.

California State University Policies

The California State University (CSU) has several systemwide policies related to health and safety, as described below. See Section 4.7.2.3, CSUMB Plans, for relevant plans developed in part under these policies.

Executive Order 1039

The executive order (EO) 1039 is issued pursuant to the Standing Orders of the Board of Trustees of the California State University. Through adoption of the following statement of policy, the CSU recognizes Occupational Health & Safety (e.g., Environmental Health & Safety or EH&S) as an integral function throughout the CSU system.

EH&S includes policies and practices designed to mitigate the risk of injury and illness to CSU employees and to promote campus health and safety programs. These injuries and/or illnesses may arise from work related activities in the form of accidents, or exposure to potentially harmful practices, conditions, substances, and equipment. Certain types of student activities are also addressed.

The CSU, its officers, and employees are responsible for developing and maintaining injury and illness prevention programs and ensuring that activities and tasks are performed in a manner that reasonably control hazards that can cause injuries or illnesses.

Executive Order 1056

EO 1056 requires each campus to develop and maintain an emergency management program that can be activated when a hazardous condition, natural or man-made disaster reaches, or has the potential for reaching, proportions beyond the capacity of routine campus operations. The President of each campus is delegated the responsibility for the development, implementation, and maintenance of an emergency management program on campus and for ensuring the stated management activities are accomplished in support of the campus emergency management program.

Executive Order 1107

EO 1107 provides direction on implementing Jeanne Clery Disclosure of Campus Safety Security Policy and Campus Crime Statistics Act, commonly referred to as the Clery Act (20 U.S.C. § 1092(f)). The EO indicates that the CSU is committed to promoting the safety and security of its campus communities to provide a supportive and accessible living, learning, and working environment. It is further committed to identifying conditions or circumstances that may pose risks to the safety and security of the university and preparing the university to respond effectively to emergencies. Accordingly, each CSU campus is required to comply with the requirements of the Clery Act. Related to environmental hazards, the policy outlines the procedures campuses are required to use to immediately notify the campus community upon the confirmation of a significant emergency or dangerous situation on the campus involving an immediate threat to the health or safety of students or employees (e.g., hazardous chemical spill, fire, earthquake, building collapse).

State University Administrative Manual

The State University Administrative Manual (SUAM) establishes procedures required to be used during planning, design and construction of buildings and other facilities on CSU campuses (CSU 2004). The SUAM indicates that a hazardous materials report is to be prepared during the schematic design phase of a project. Based on the results of this report, hazardous materials abatement documents will be prepared to address known or suspected conditions related to existing contamination on a project site or within an existing building that may be subject to demolition or reconstruction. Hazardous materials and abatement reports are then included in construction bid documents so that construction contractors can provide for proper abatement of known or suspected conditions during project construction.

4.7.2.3 CSUMB Plans

This subsection describes the suite of CSUMB plans in place to comply with federal and state hazardous materials and emergency response requirements. A Hazardous Materials Business Plan per the California Health and Safety Code is not required, as CSUMB does not use, handle, or store hazardous materials (including hazardous waste) or an extremely hazardous material in quantities greater than those previously noted (see California Health and Safety Code above).

Spill Prevention, Control, and Countermeasure Plan

The CSUMB Spill Prevention Control and Countermeasures (SPCC) Plan meets the requirements of the EPA, which has published guidelines in the Federal Register Volume 28, No. 237, dated 11 December 1973, amended and codified under 40 C.F.R. Part 112 Oil Pollution Prevention. In general, these regulations apply to facilities that could possibly discharge oil into navigable waters. However, none of CSUMB's storm water or drainage system is connected to any navigable waters. Additionally, petroleum storage facilities in the State of California are subject to the statutes of California Health and Safety Code § 25270. In accordance with the requirements of the Federal regulations, this plan must also meet State regulations requirements. The plan provides an inventory of diesel fuel tanks, electrical transformers, waste oil and antifreeze on campus and provides spill prevention control and countermeasures to address potential spills of hazardous materials. According to the plan, CSUMB has no history of reportable releases.

Hazard Communication Program

The CSUMB Hazard Communication Program is intended to provide workers with the information necessary to recognize hazardous materials in the workplace, and to train them to avoid exposure and to respond appropriately if an accident occurs (CSUMB 2018a). The program is prepared under the Cal/OSHA Hazard Communication regulations and CSU EO 1107 and is administered by CSUMB's Environmental Health, Safety and Risk Management office. The plan requires chemical labeling, chemical inventories, materials safety data sheets, and worker training.

Injury and Illness Prevention Program

The CSUMB Injury and Illness Prevention Program was established in accordance with California Code of Regulations (Cal. Code Regs. tit. 8, § 3203) and CSU Chancellor's Office Executive Order 1039. The program seeks to prevent illnesses and injuries in the workplace by ensuring that workplace hazards are effectively communicated to employees, workplace inspections occur, hazards are identified, accidents are reported, actions are taken to correct hazards, appropriate training occurs, and program implementation is documented. The program is administered by the CSUMB Environmental Health, Safety and Risk Management office (CSUMB 2018b).

Chemical Hygiene Plan

The Chemical Hygiene Plan is required under the California Code of Regulations (Cal. Code Regs. tit. 8, § 5191); and CSU Environmental Health and Safety Program Development and Administrative Guide, Section 4.0. The plan is directed at controlling exposure to hazardous chemicals in laboratories and sets forth procedures, equipment, and practices to protect employees from chemical hazards and to keep chemical exposure below regulatory limits. The plan describes standard operating procedures, and training and record keeping requirements (CSUMB 2018c). The plan is administered by the CSUMB Environmental Health, Safety and Risk Management office.

Hazardous Waste Management Program

The CSUMB Hazardous Waste Management Program specifies campus procedures for handling and storage of hazardous chemical waste. It addresses appropriate waste handling procedures, waste storage containers and packaging, container labeling, and waste accumulation time and quantity limits. It also describes procedures for inspecting hazardous waste collection areas, arranging hazardous waste pick-ups and disposal, and annual hazardous waste management training for campus personnel (CSUMB 2017).

Emergency Operations Plan

The CSUMB Emergency Operations Plan, implemented under CSU EO 1056, provides a management tool to facilitate timely, effective, and coordinated emergency response and recovery activities. This plan is intended to integrate CSUMB emergency resources and procedures, including the CSUMB Academic Environmental Health, Safety and Risk Management program, with those of other local response agencies and organizations. The plan provides a framework and procedural guidance for all-hazard emergency management efforts and evacuations. The plan provides a scalable approach to incident management, enabling its use in both large and small incidents and events. It is also flexible, allowing for adaptation as needed to address the unique needs of the specific emergency incident. The Emergency Operations Plan also includes evacuation plans. Specifically, Emergency Support Function 17 guides the coordinated and orderly evacuation of the CSUMB campus in the event of an emergency. The Emergency Operations Plan is designed to integrate with plans of CSUMB's response partners and is consistent with Federal Emergency Management Agency and California Office of Emergency Services mandates (CSUMB 2014).

CSUMB has established Memoranda of Agreement with the cities of Seaside, Marina and Sand City establishing the CSUMB Emergency Operations Center (EOC) as the Monterey Peninsula Regional Emergency Coordination Center and providing for incident management team support from the partner jurisdictions for both localized and regional incidents (CSUMB 2014).

Fort Ord Reuse Authority Act

The Fort Ord Reuse Authority Act was implemented by the State of California to facilitate the transfer and reuse of the Fort Ord military base, and established FORA as the entity responsible for planning, financing, and carrying out the transfer and reuse of the base in a cooperative, coordinated, balanced, and decisive manner (Cal. Gov. Code § 67650 *et seq.)*. Founded in 1994 after the official closure of Fort Ord, the Fort Ord Reuse Authority (FORA) was responsible for the oversight of Monterey Bay area economic recovery from the closure of and reuse planning of the former Fort Ord military base. Pursuant to the Act, FORA must dissolve when eighty percent of the base has been developed or reused in a manner consistent with the *Fort Ord Reuse Plan* (Reuse Plan), or on June 30, 2020, whichever comes first. Pursuant to the Fort Ord Reuse Authority Act, FORA's legislatively defined mission was complete as of June 30, 2020 and FORA has now been dissolved.

Prior to its dissolution, the Fort Ord Reuse Authority (FORA) adopted the Reuse Plan in June 1997, and a revised version was published in digital format in September 2001 and March 2018, incorporating various corrections and errata. As stated in the Reuse Plan, wildfire hazards exist at the former Fort Ord primarily in open space and habitat areas, especially those containing grassland with many steeper areas containing brushland and wooded slopes. These areas are located primarily in the eastern half of the Fort Ord planning area, mostly in unincorporated Monterey County.

4.7.2.4 Local

As a state entity, CSUMB is not subject to local government permitting or regulations, polices, or ordinances for the cities of Marina and Seaside and the County of Monterey. Accordingly, because neither local general plans or any other local land use plans or ordinances are applicable to CSUMB, such local plans and ordinances are not summarized here or further analyzed in this chapter. However, as indicated above, Monterey County Environmental Health Bureau is the local CUPA that administers state and federal hazardous waste laws locally. Additionally, the Monterey County Community Wildfire Protection Plan pertains to fire management on the former Fort Ord and is summarized below.

Monterey County Community Wildfire Protection Plan

The Monterey County Community Wildfire Protection Plan (MCCWPP) was developed by the Monterey Fire Safe Council (MFSC), including the Monterey County Wildfire Working Group (MC2WG) which is serving as its MCCWPP committee, with input from CAL FIRE, the United States Forest Service (USFS), the BLM and other stakeholders. The MCCWPP makes the connection between strategic fuelbreaks, defensible space, defensible polygons, and incident management, providing communities and agencies guidance to wildfire prevention and protection.

Recommendations include hazardous fuel mitigation activities and methods for reducing structural ignitability.

The MCCWPP identifies CSUMB and having "medium" risk of wildfire occurrence with an overall "high" priority rating for fuel reduction work. The MCCWPP also indicates that CSUMB and surrounding areas (e.g., Seaside and Marine) meet the definition of an at-risk community in the Healthy Forests Restoration Act (i.e., a group of homes and other structures with basic infrastructure and services, that are at risk of wildfire, and are within or adjacent to Federal land).

The MCCWPP (Appendix H) indicates that during severe weather conditions, wildfire in the undeveloped maritime chaparral on the former Fort Ord is expected to produce high spread rates, moderate to high intensity, and typically close range and long-range spotting of up to one mile. The plan indicates that due to the distribution of flammable maritime chaparral and sage fire fuel types and rapidly fluctuating winds and relative humidity in combination with solar preheating, the former Fort Ord presents a unique and challenging fire threat. As indicated in Appendix I of the MCCWPP, the undeveloped former Fort Ord lands may represent the single greatest hazardous fuel and fire threat to the WUI in Monterey County. The undeveloped former Fort Ord lands are primarily in FRAs managed by the BLM (i.e., about 7,200 acres) and by the U.S. Army (i.e., about 6,500 acres) until such time as they are transferred to the BLM. Lands managed and controlled by the Army will likely continue to be managed by the Army until 2020-2025 while the Army conducts MEC remediation of these former range areas.

The highest fire threat in the area consists of the 6,500 acres of maritime chaparral within the former Fort Ord Multi Range Area (MRA) where the presence of MEC hampers tactical firefighting effectiveness and presents additional life threat to firefighters and the public, especially at Del Rey Oaks and Seaside. Within the MRA, the Army maintains a system of fuelbreak roads that facilitate prescribed burning as part of the steps to remove brush for MEC remediation. The Army intends to prescribe burn up to 800 acres per year in the MRA to facilitate the MEC remediation.

The MCCWPP provides recommended high priority hazard fuel reduction treatments and other projects in Appendix D of the plan. These projects include fuel reduction, fuelbreaks and defensible space on the East Campus Housing area of the CSUMB campus. There are also many BLM and Army treatments and projects in the former Fort Ord area including projects related to defensible space, fuelbreaks, fuel reduction, mowing, sheep and goat grazing, and pile burning.

4.7.3 Impacts and Mitigation Measures

This section presents the evaluation of potential environmental impacts associated with the Project related to hazards and hazardous materials. The section includes the thresholds of significance used in evaluating the impacts, the methods used in conducting the analysis, and the evaluation of Project impacts and the Project's contribution to significant cumulative impacts. In

the event significant impacts within the meaning of CEQA are identified, appropriate mitigation measures, where feasible, are identified.

4.7.3.1 Thresholds of Significance

The significance criteria used to evaluate the impacts of the Project related to hazards and hazardous materials are based on Appendix G of the CEQA Guidelines. Based on Appendix G, a significant impact related to hazards and hazardous materials would occur if the Project would:

A. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

B. Create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment.

C. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

D. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would create a significant hazard to the public or the environment.

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area.

F. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

G. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

H. If located in or near state responsibility areas or lands classified as very high fire hazards severity zones, the project would:

   i) Substantially impair an adopted emergency response plan or emergency evacuation plan.

   ii) 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.

   iii) 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.

iv) 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.

4.7.3.2 Analytical Method

Program- and Project-Level Review

The hazards and hazardous materials impact analysis in this section includes a program-level analysis under CEQA of the proposed Master Plan and project design features (PDFs), as described in Chapter 3, Project Description. The analysis also includes a project-level analysis under CEQA of the five near-term development components that would be implemented under the proposed Master Plan. Both construction and operation of the Project are considered, where relevant. The impact analysis assumes that Project development, including the five near-term development components, would be constructed and operated in compliance with the most current policies and regulations related to hazards and hazardous materials, as described in Section 4.7.2, Regulatory Framework. A review of applicable regulatory records was conducted to characterize the existing environmental setting in the study area, as described in Section 4.7.1, and to identify any existing hazardous waste and substances sites on or near the campus that could affect Project construction or operation. In the event significant adverse environmental impacts would occur with the Project even with incorporation of applicable regulations and proposed PDFs, impacts would be potentially significant and mitigation measures would be identified to reduce impacts to less than significant, where feasible.

Project Design Features

There are several PDFs that are incorporated into the technical analysis of hazards, hazardous materials, and wildfire, as summarized below (see Chapter 3, Project Description for specific text of each applicable PDF):

- *PDF-W-3* provides for the protection of stormwater quality through the implementation of best management practices that include using principles of integrated pest management, minimizing the use of pesticides and quick release fertilizers, using non-chemical controls to treat pest problems, and maintaining compliance with existing standards for special handling, removal, and disposal of hazardous materials to an approved location.

- *PDF-M0-8* establishes restrictions to general vehicle travel through the campus core and locates vehicle circulation and parking on the campus periphery. Specifically, vehicle access will be limited to CSUMB students, faculty, and staff vehicles on General Jim Moore Boulevard between Eighth Street and Fifth Street. Vehicle travel through the campus core will be restricted to shuttles, transit vehicles, service vehicles, and emergency vehicles at:

Inter-Garrison Road between General Jim Moore Boulevard and Sixth Avenue, Divarty Street between General Jim Moore Boulevard and Seventh Avenue, Fourth Avenue between Divarty Street and Inter-Garrison Road, Fifth Avenue between Divarty Street and Inter-Garrison, A Street between Divarty Street and Seventh Avenue, Sixth Avenue between B Street and north of Divarty Street, and Butler Street between Sixth Avenue and Seventh Avenue. Additionally, Seventh Avenue between Colonel Durham Street and Butler Street will be converted to one-way for vehicles traveling north from Colonel Durham Street to Inter-Garrison Road.

- *PDF-OS-11* provides for the preparation and implementation of a defensible space plan per California Public Resources Code § 4291 and California Government Code § 51182 to address landscape requirements for structures located: (1) along the eastern edge of the Main Campus; (2) adjacent to the Southern Oak Woodlands; (3) along the undeveloped portions of Inter-Garrison Road; and (4) at the East Campus Housing area. The practice also provides for the review and enhancement of the existing University evacuation plans, as part of the defensible space plan, to incorporate preplanned evacuation routes and safe refuge areas for the entire campus community in the event or threat of a wildfire.

4.7.3.3 Issues Not Evaluated Further

The Project would have no impact with respect to the following threshold of significance and therefore this topic is not further evaluated:

- Airport Safety Hazards (Threshold E). As described in Section 4.7.1, Environmental Setting, the Project would not result in an aircraft safety hazard for people residing or working in the project area. Specifically, the CSUMB campus is located outside of the airport safety zones, but a portion of the campus is located within the airport influence area (Zone 7) of the Marina Municipal Airport. The airport accident risk level is considered low within this zone (Coffman Associates, Inc. 2019a).

4.7.3.4 Project Impacts and Mitigation Measures

This section provides a detailed evaluation of hazards, hazardous materials and wildfire impacts associated with the Project.

Impact HAZ-1: Routine Transport, Use, or Disposal of Hazardous Materials (Threshold A). The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. *(Less than Significant)*

Master Plan

Construction

The proposed Master Plan would result in construction of approximately 2.6 million gross square feet (GSF) of net new academic and support facilities, including housing, administration, student life, recreational, and institutional partnership buildings (see Chapter 3, Project Description, Table 3-4 and Figures 3-5 and 3-6). Relatively small amounts of commonly used hazardous substances, such as gasoline, diesel fuel, lubricating oil, grease, and solvents would be utilized during construction. Incidental spills and leaks of such substances associated with routine use during construction represent a potential hazard to human health and the environment if not properly stored and handled. Accident prevention and containment are the responsibility of the construction contractors, and provisions to properly manage hazardous substances and wastes are included in standard CSU construction specifications, as indicated in the SUAM (CSU 2004).

All contractors are required to comply with applicable laws and regulations regarding hazardous materials and hazardous waste management and disposal. These materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. In addition, individual developments under the proposed Master Plan would be required to comply with the State Water Resources Board Construction General Permit, which requires a stormwater pollution prevention plan (SWPPP) and development of best management practices (BMPs) for all phases of construction on sites greater than 1 acre (see Section 4.8, Hydrology and Water Quality for additional information about this requirement). Implementation of a SWPPP would avoid or minimize release of hazardous materials from construction sites by including water quality BMPs designed to prevent pollutants from becoming mobilized by stormwater runoff. Therefore, use of hazardous materials during construction would not pose a significant risk to the public or environment due to the routine transport, use, or disposal of hazardous materials and the impact would be *less than significant.*

Operations

During operations and maintenance of the proposed Master Plan, hazardous materials (as defined under federal and state environmental laws) would continue to be used and stored on the campus. The Project would result in an incremental increase in the use, storage, and handling of such materials. Hazardous materials used on site would continue to include cleaning products, landscaping chemicals and fertilizers, and other substances associated with the maintenance of vehicles, ornamental landscaped areas and recreational fields and the operation of academic and instructional programs. The transport, storage, use, or disposal of hazardous materials would be limited to common hazardous materials and materials necessary for academic and instructional programs. Chemistry and biology laboratories would also store potentially hazardous laboratory materials. However, as indicated in Section 4.7.1, Environmental Setting, radioactive materials, and biohazardous materials involving serious risks are used only on a limited basis on campus in x-ray equipment and alarm devices and the use of such materials as a result of the proposed Project would be expected to be from similar equipment.

Hazardous materials would continue to be used, stored, and transported on the campus in accordance with all applicable state and federal regulations. Continued implementation of CSUMB's Hazard Communication Plan, Injury and Illness Prevention Program and Chemical Hygiene Plan would provide CSUMB affiliates with the information necessary to avoid exposure to hazardous materials and to respond appropriately if an accident happens. Proposed PDF W-3 would implement a storm water maintenance program that limits use of chemicals and provides special handling of hazardous materials. Additionally, review of future building designs by CSU building officials and the State Fire Marshal would ensure compliance with the California Building Code regulations related to the use, storage, and handling of hazardous materials (CSU 2004).

Any hazardous waste on campus would be collected and stored in designated locations in accordance with the CSUMB Hazardous Waste Management Program until a licensed hazardous waste contractor prepares the waste for segregation, packaging, and transport to an authorized hazardous waste disposal site. While the Project would result in an incremental increase in the routine transport, use, and disposal of hazardous wastes generated by routine campus operations, all hazardous materials would be managed in accordance with the California Hazardous Waste Control Law and the Hazardous Waste Control Regulations, as described in Section 4.7.2, Regulatory Framework.

With continued compliance with applicable regulations and implementation of the various CSUMB plans and programs related to the use, storage, and disposal of hazardous materials the Project would not pose a significant hazard to the public or the environment and impacts would be *less than significant*.

Near-Term Development Components

Construction of near-term development components would involve the use of relatively small amounts of commonly used hazardous substances, such as gasoline, diesel fuel, lubricating oil, grease, and solvents. Accident prevention and containment of these materials are the responsibility of the construction contractors, and provisions to properly manage hazardous substances and wastes are included in standard CSU construction specifications, as indicated in the SUAM (CSU 2004). Additionally, CSUMB would be required to implement spill prevention and containment measures stipulated in SWPPPs for each near-term development site, given that the sites are greater than 1 acre.

While the near-term development components may result in an incremental increase in the routine transport, use, and disposal of hazardous materials and/or wastes generated by routine campus operations, all hazardous materials would be managed in accordance with all applicable state and federal regulations. Continued implementation of CSUMB's various hazard-related plans and programs would provide CSUMB affiliates with the information necessary to avoid exposure to hazardous materials and to respond appropriately if an accident happens. Additionally, the design of Academic IV, a planned science building, would be reviewed by CSU building officials and the State Fire Marshal to ensure compliance with the California Building Code regulations related to the use, storage, and handling of hazardous materials (SUAM 2004).

Therefore, use of hazardous materials during construction and operation of the near-term development components would not pose a significant risk to the public or environment due to the routine transport, use, or disposal of hazardous materials and the impact would be *less than significant*.

Mitigation Measures

Mitigation measures are not required because a significant impact has not been identified.

Impact HAZ-2: Upset and Release of Hazardous Materials (Thresholds B and D). The Project would not potentially create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment from known or potential areas of contamination, including due the presence of hazardous materials sites. *(Less than Significant)*

Master Plan

Demolition

The proposed Master Plan projects that up to 24 buildings, totaling approximately 256,366 GSF, would be demolished to accommodate new development projects (see Chapter 3, Project Description, Table 3-4). As indicated in Section 4.7.1, Environmental Setting, inspections and testing indicates that ACMs, LBP, PCBs, and universal waste is present in many of these buildings to be demolished. ACMs may also be present in subsurface insulated piping and/or cement utility piping. Improper handling and disposal of these materials could potentially create a significant hazard to demolition personnel or the environment due to accidental release of these materials. However, the SUAM provides procedures required to be used during planning, design and construction of buildings and other facilities on CSU campuses. The SUAM indicates that a hazardous materials report will be prepared during the schematic design phase of a project. Based on the results of this report, hazardous materials abatement documents would be prepared to address known or suspected conditions related to existing contamination on a project site or within an existing building that may be subject to demolition or reconstruction. Hazardous materials and abatement reports are included in construction bid documents so that construction contractors can provide for proper abatement of known or suspected conditions during project construction. Given the above, demolition of existing structures under the proposed Master Plan would not result in accidental release of hazardous materials into the environment as a result of known or potential areas of contamination and the impact would be *less than significant*.

Construction and Operation

As indicated in Section 4.7.1, Environmental Setting, CSUMB is located on a portion of the 28,000-acre former Fort Ord Army Base, of which 24,492 acres are listed on the DTSC's EnviroStor's Cortese Hazardous Waste and Substances Sites List. In 1990, Fort Ord was placed on the federal NPL as a result of soil and groundwater contamination. The NPL listing and a federal facilities agreement required the Army to perform the Superfund cleanup process prior to the conveyance of any land.

In 1986, on-base (i.e., northern Main Campus area) and off-base groundwater was found to be contaminated with VOCs, including PCE, TCE, TCA, and trans-1,2-dichloroethylene. A former Fort Ord landfill, operated from 1956 to 1987 and located north of the East Campus Open Space

and west of East Campus Housing, has contributed to the groundwater contamination. In 1990, a network of groundwater monitoring wells was installed throughout the former Fort Ord. A groundwater deed restriction in the form of a groundwater Land Use Covenant has been placed on properties overlying the groundwater contamination plume, including portions of the CSUMB Main Campus and East Campus Open Space. The deed restriction prohibits the drilling of groundwater extraction or injection wells, or the creation of new groundwater recharge basins/surface water infiltration ponds without closely coordinating with the Army in the restricted area, but allows the Army (or its designated contractor) and the regulatory agencies to permit necessary groundwater monitoring and the installation of pump and treat remediation operations. The Central Coast RWQCB has concluded that there are no pathways for exposure to the groundwater contamination by property users, given that the groundwater is not used as a drinking water source, a deed restriction applies to the property, and the depth to groundwater is approximately 165 feet below ground surface.

FOSTs have been prepared by the Army to document that the CSUMB property is environmentally suitable for transfer under CERCLA and DOD FOST Guidance. The DTSC issued letters of no further action for the property and the USEPA concurred that all necessary remedial action has been completed. In accordance with CERCLA, the FOSTs for the CSUMB Main Campus and East Campus Housing demonstrate that either the property is uncontaminated or that all necessary remediation has been completed or is in place and operating properly and successfully.

The FOSTs include documentation of the presence of and/or removal of munitions and MEC. The Main Campus and East Campus Housing areas are not areas of former munitions use and are suitable for residential and non-residential uses. The FOSTs include documentation of the presence of and/or removal of munitions and MEC. Per these FOSTs, in the event CSUMB grading and construction contractors discover any ordnance, they would be required not to attempt to remove or destroy it, but rather to immediately notify the CSUMB Police Department and the Directorate of Law Enforcement at the Presidio of Monterey. Qualified U.S. Army Explosive Ordnance personnel would be dispatched promptly to dispose of such ordnance properly at no expense to CSUMB.

The East Campus Open Space is an area of former munitions use and the proposed Master Plan designates most of it as open space. The westernmost 50 acres is cleaned to the highest "residential standard", and has been designated as a faculty and staff housing reserve (see Chapter 3, Project Description, Figure 3-5) suitable for future residential land use, but is not proposed for development as a part of this Project. The East Campus Open Space has deed restrictions to protect human health.

However, regardless of the condition of each development site on campus, the SUAM requires a hazardous materials report and hazardous materials abatement documents, if necessary, for all

construction projects, as described above, which would result in the abatement or remediation of any identified contamination prior to construction. Given the above, construction and operation of the Project would not result in accidental release of hazardous materials into the environment because of known or potential areas of contamination and the impact is *less than significant*.

Near-Term Development Components

Construction of near-term development components would involve the demolition of existing buildings on the Academic IV, Student Recreation Center and the Academic V development sites. Hazardous materials reports will be prepared during the schematic design phase of these projects and hazardous materials abatement documents would be prepared and incorporated into construction contracts, if needed, such that proper abatement of hazardous conditions would occur during demolition or construction (CSU 2004).

The CSUMB campus subject to development under the proposed Master Plan, including the near-term development sites, is located on land that is either uncontaminated or for which all necessary remediation has been completed. Further, there are no pathways for exposure to existing groundwater contamination given the depth to ground water and deed restrictions. In the event CSUMB grading and construction contractors on the near-term development component sites discover any ordnance, they would be required to immediately notify the CSUMB Police Department and the Directorate of Law Enforcement at the Presidio of Monterey and U.S. Army Explosive Ordnance personnel would be dispatched promptly to dispose of such ordnance properly. Given the above, the near-term development components would not result in accidental release of hazardous materials into the environment as a result of known or potential areas of contamination and the impact is *less than significant*.

Mitigation Measures

Mitigation measures are not required because a significant impact has not been identified.

Impact HAZ-3: **Hazardous Materials Near Schools (Threshold C).** The Project would not 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)*

Master Plan

Construction

Nearby schools include the Monterey College of Law, located immediately to the southwest; the Chartwell School, located approximately 0.6 mile to the southwest; George C. Marshall Elementary School, located approximately 0.7 mile to the southwest; the Dual Language Academy of the Monterey Peninsula, located approximately 0.7 mile to the southwest; Marina High School, located approximately 1.0 mile to the north; Crumpton Elementary School, located approximately 1.3 miles to the northeast; and Marina Vista Elementary School, located approximately 1.4 miles to the northeast. In addition, the proposed Monterey Bay Charter School would ultimately be located on the CSUMB campus. All development under the proposed Master Plan would occur within the CSUMB campus. As previously discussed in Impact HAZ-1, future construction under the proposed Master Plan would result in the handling of relatively small amounts of hazardous materials during construction, including lubricants, solvents, and fuel, used in construction equipment and vehicles. These materials would be handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. In addition, individual developments under the proposed Master Plan would be required to comply with the State Water Resources Board Construction General Permit, which requires a SWPPP and development of BMPs for all phases of construction and potential pollutants generated by the construction activities on sites greater than 1 acre (see Section 4.8, Hydrology and Water Quality, for additional information about this requirement). Implementation of a SWPPP would avoid or minimize release of hazardous materials from construction sites by including water quality BMPs designed to prevent pollutants from becoming mobilized by stormwater runoff. Therefore, the impact of construction under the proposed Master Plan related to handling hazardous materials near schools would be *less than significant.*

Operations

As previously discussed in Impact HAZ-1, day-to-day operation of development under the proposed Master Plan would involve the routine use of hazardous materials. All hazardous materials and/or wastes used or generated on site would be required to be managed in accordance with applicable state and federal regulations. Therefore, the impact of the operation of the proposed Master Plan related to handling hazardous materials near schools would be *less than significant.* (See Impact HAZ-1 for additional information.)

Near-Term Development Components

Construction of near-term development components would also involve the use of relatively small amounts of commonly used hazardous substances during construction, as described above. These materials would be handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. Additionally, CSUMB would be required to implement spill prevention and containment measures stipulated in SWPPPs for each near-term development component site, given that the sites are all greater than 1 acre. All hazardous materials used during operations would be managed in accordance with applicable state and federal regulations. Therefore, the impact of construction and operation of the near-term development components related to handling hazardous materials near schools would be *less than significant*. (See Impact HAZ-1 for additional discussion.)

Mitigation Measures

Mitigation measures are not required because a significant impact has not been identified.

Impact HAZ-4: **Impair Emergency Response (Threshold F).** The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. *(Less than Significant)*

Master Plan

All development under the proposed Master Plan would be designed, constructed, and maintained to comply with applicable local, regional, state, and/or federal requirements related to emergency access and evacuation. The Division of the State Architect and the State Fire Marshal would perform an access compliance review and a fire and life safety review, respectively, prior to approval of individual project drawings and specification documents (CSU 2004).

The CSUMB Emergency Operations Plan provides a management tool to facilitate timely, effective, and coordinated emergency response and recovery activities. This plan is intended to integrate CSUMB emergency resources and procedures, including the CSUMB Academic Environmental Health & Safety Program, with those of other local response agencies and organizations. The plan provides a framework and procedural guidance for all-hazard emergency management efforts including evacuation. The plan provides a scalable approach to incident management, enabling its use in both large and small incidents and events. It is also flexible, allowing for adaptation as needed to address the unique needs of the specific emergency incident. The plan is designed to integrate with plans of CSUMB's response partners and is consistent with Federal Emergency Management Agency and California Office of Emergency Services mandates.

While PDF-MO-8 establishes restrictions to general vehicle travel through the campus core, access for emergency vehicles, service vehicles, transit vehicles and service vehicles through the campus core would be retained with the Project. Implementation of this PDF would also locate vehicle circulation and parking on the campus periphery, which would facilitate evacuation from the campus in the event of an emergency requiring such evacuation.

Overall, the Project would not impair implementation of or physically interfere with the CSUMB Emergency Operations Plan, as it would not have any effect on the plan's framework or procedural guidance or otherwise affect plans for campus evacuation. Therefore, the proposed Master Plan would not interfere with an adopted emergency response plan and the impact would be *less than significant*.

Near-Term Development Components

The near-term development components would be designed, constructed, and maintained to comply with applicable local, regional, state, and/or federal requirements related to emergency access and evacuation plans. As indicated above, the Division of the State Architect and the State Fire Marshal will perform an access compliance review and a fire and life safety review, respectively, prior to approval of individual project drawings and specification documents for the near-term development components.

Additionally, as is the case for the proposed Master Plan, the near-term development components would not impair implementation of or physically interfere with the CSUMB Emergency Operations Plan, as they would not have any effect on the plan's framework or procedural guidance. Therefore, the proposed near-term development components would not interfere with an adopted emergency response plan and the impact would be *less than significant*.

Mitigation Measures

Mitigation measures are not required because a significant impact has not been identified.

Impact HAZ-5: **Wildfire Hazards (Thresholds G and H).** The Project would not substantially impair an adopted emergency response or evacuation plan, exacerbate wildfire risk, require the installation or maintenance of infrastructure that would exacerbate wildfire risk, cause a significant risk of loss, injury, or death, involving wildland fires, or expose people or structures to significant post-fire risks. *(Less than Significant)*

Master Plan

As shown in Figure 4.7-1, the campus is not located in an SRA or on lands classified as Very High Fire Hazard Severity Zones. The closest Very High Fire Hazard Severity Zones are located approximately 1 mile or more away from the developed portions of the CSUMB campus in the undeveloped portions of the former Fort Ord. The closest SRA is located approximately 5 miles or more away from the campus. The eastern edge of the Main Campus, between Seventh and Eighth Avenues, and a portion of East Campus Housing are designated as a LRA High Fire Hazard Severity Zone under the jurisdiction of the Monterey County Regional Fire District. Similarly, East Campus Open Space is designated as an FRA High Fire Hazard Severity Zone under the jurisdiction of the BLM. Additionally, FRA Very High and High Fire Hazard Severity Zones under the jurisdiction of BLM and the U.S. Army are located to the east and southeast of the campus on the undeveloped portions of the former Fort Ord.

The proposed Master Plan would result in construction of approximately 2.6 million gross square feet (GSF) of net new academic and support facilities, including housing, administration, student life, recreational, and institutional partnership buildings (see Chapter 3, Project Description, Table 3-4 and Figures 3-5 and 3-6). The development under the proposed Master Plan would consist of infill development on parking lots or previously disturbed areas of the Main Campus including redevelopment of existing low-density building sites with higher-density buildings to accommodate the proposed enrollment cap increase and related population growth. No new buildings are proposed for construction in the East Campus Open Space or in East Campus Housing. Activities in these two areas are limited to conversion of existing student and Community Housing Partner housing at East Campus Housing for use by faculty and staff and possible trail/path construction.

The Project includes implementation of PDF-OS-11, which provides for the preparation and implementation of a defensible space plan per California Public Resources Code § 4291 and California Government Code § 51182 to address landscape requirements for structures located: (1) along the eastern edge of the Main Campus; (2) adjacent to the Southern Oak Woodlands; (3) along the undeveloped portions of Inter-Garrison Road; and (4) at the East Campus Housing area. The practice also provides for the review and enhancement of the existing University evacuation plans, as part of the defensible space plan, to incorporate preplanned evacuation

routes and safe refuge areas for the entire campus community in the event or threat of a wildfire. The implementation of this PDF would reduce fuels on campus in areas designated as LRA High Fire Hazard Severity Zones and other LRA areas and would result in the review and enhancement of existing campus evacuation plans. To date, CSUMB has begun to implement this PDF by preparing a draft of the plan, which is currently under review.

As indicated in Impact HAZ-4, all development under the proposed Master Plan would be designed, constructed, and maintained to comply with applicable local, regional, state, and/or federal requirements related to emergency access and evacuation. The Division of the State Architect and the State Fire Marshal would perform an access compliance review and a fire and life safety review, respectively, prior to approval of individual project drawings and specification documents. Further, as indicated in Impact HAZ-4, the Project would not impair implementation of or physically interfere with the CSUMB Emergency Operations Plan.

The Project would not exacerbate wildfire risks for several reasons. New building would consist of infill development on parking lots or previously disturbed areas of the Main Campus (i.e., developed and/or ruderal/disturbed in Figure 4.3-2 [Section 4.3, Biological Resources]). This would increase the density of development within the Main Campus with new buildings and infrastructure constructed in accordance with modern fire code and safety standards. New buildings would be located on gently sloping topography on the Main Campus with slopes 2 to 5 percent and would avoid areas with steep slopes and associated fire risks. Additionally, new infrastructure connections for new buildings (e.g., electrical, natural gas) would be underground and therefore would not exacerbate fire risks. Further, new Project buildings would not be located in proximity to the two major electrical transmission lines that traverse the East Campus Open Space, as well as the eastern edge of the East Campus Housing area and would also not be in proximity to the underground natural gas transmission pipeline that also traverses the East Campus Open Space. Lastly, as described in Section 4.7.1, Environmental Setting, prevailing winds during the summer and fall move to the east and southeast across the campus and vicinity and would move any wildfire occurring in the mapped Very High Fire Hazard Severity Zones located east and southeast of the campus in an easterly/southeasterly direction away from the campus.

Additionally, the Project would not increase post-fire hazards such as flooding and landslides. If a wildfire were to occur on the open space portion of the Main Campus, or in East Campus Housing, the risk of flooding or landslides post-fire would generally be negligible because of the gently sloping topography and the low risk of landslides that predominates on the campus. If there were a fire in East Campus Open Space where there is steeper topography, or further east in the undeveloped portions of the former Fort Ord, the Main Campus and East Campus Housing would not be subject to post-risk flooding and landslide risks, as these areas are not directly downslope of East Campus Open Space and the undeveloped portions of the former Fort Ord.

As a result of the information provided above and in Impact HAZ-4, the Project would not substantially impair an adopted emergency response or evacuation plan, exacerbate wildfire risk, require the installation or maintenance of infrastructure that would exacerbate wildfire risk, cause a significant risk of loss, injury, or death, involving wildland fires, or expose people or structures to significant post-fire risks. Therefore, the impact would be *less than significant.*

Near-Term Development Components

The near-term development components would be located on the Main Campus and the conditions described above for the proposed Master Plan would also apply to these components. As such, the near-term development components would not substantially impair an adopted emergency response or evacuation plan, exacerbate wildfire risk, require the installation or maintenance of infrastructure that would exacerbate wildfire risk, cause a significant risk of loss, injury, or death, involving wildland fires, or expose people or structures to significant post-fire risks. Therefore, the impact would be *less than significant.*

Mitigation Measures

Mitigation measures are not required because a significant impact has not been identified.

4.7.3.5 Cumulative Impacts

This section provides an evaluation of hazards, hazardous materials and wildfire impacts associated with the Project, including near-term development components, when considered together with other reasonably foreseeable cumulative development, as identified in Table 4.0-1 in Section 4.0, Introduction to Analysis, and as relevant to this topic. The geographic area considered in the cumulative analysis for this topic is described in the impact analysis below.

Impact HAZ-6	**Cumulative Hazardous Materials, Emergency Response, and Wildfire Impacts (Thresholds A, B, C, F, and G).** The Project would not result in a cumulatively considerable contribution to significant cumulative impacts related to hazardous materials, emergency response, and wildfire. *(Less than Significant)*

Hazardous Materials

Impacts related to hazards and hazardous materials depend on the specific conditions on the particular project site and its immediate vicinity, such as the presence of soil contamination. Thus, these site-specific impacts would not combine with one another to create cumulative impacts, unless the cumulative development sites overlapped or were immediately adjacent to one another. Therefore, the geographic area considered for potential cumulative hazards and

hazardous materials impacts consists of the CSUMB campus and areas immediately adjacent to the campus.

Construction

Based on review of Table 4.0-1 and Figure 4.0-1, the building sites identified in the proposed Master Plan would not physically overlap with other cumulative development sites located on the campus or adjacent the campus to the south and west. The cumulative projects that could be constructed on the campus during the period of Master Plan buildout include the Monterey Bay Charter School, the Second Avenue Development Project and the Freeman Stadium Facilities Renovation Project. The cumulative projects that would be constructed near the campus include the Campus Town Specific Plan to the south of the campus along Colonel Durham Street and the Dunes on Monterey Bay, the Projects at Main Gate Specific Plan and the Concourse Auto Dealership to the southwest of the campus along Second Avenue. Based on the timing of construction of these cumulative projects and the Project there is a possibility that the construction periods for these projects could overlap.

Significant cumulative impacts related to hazards and hazardous materials could occur if the impacts of the Project combined with the impacts of one or more cumulative projects to result in a substantial increase in the risk that people or the environment would be exposed to hazardous materials through routine use or accidental release of such materials (as described in Impacts HAZ-1 through Impact HAZ-3). However, such significant cumulative impacts would not be expected to occur as the various cumulative project sites do not overlap and are not immediately adjacent to one another. While the construction periods for the cumulative projects and development under the Project could overlap, potential hazards and hazardous materials impacts would be localized to the particular development site. Further, development under the proposed Project and all cumulative construction projects would be required comply with all applicable local, state and federal regulations, which require proper management of hazardous substances and wastes on construction sites and compliance with the State Water Resources Board Construction General Permit, which requires a SWPPP and development of best management practices (BMPs) for all phases of construction on sites greater than 1 acre. This would avoid or minimize release of hazardous materials from construction sites by including water quality BMPs designed to prevent pollutants from becoming mobilized by stormwater runoff. Proper abatement of hazardous building materials (LBP, ACMs, PCBs, and universal waste) would also be required prior to demolition of any existing buildings on the campus, as described in Impact HAZ-2. Similar requirements would be implemented at other cumulative development sites.

Additionally, as indicated in Impact HAZ-2, the Army FOSTs determined that the CSUMB property (including areas encompassing the Main Campus and East Campus Housing) is environmentally suitable for transfer and demonstrated that the CSUMB campus property was

either uncontaminated or that all necessary remediation has been completed or is in place and operating properly and successfully.. Similar processes were conducted for other lands in the former Fort Ord prior to transfer by the Army, and therefore such lands would also be either uncontaminated or properly remediated. CSUMB hazardous materials reports and hazardous materials abatement documents, if necessary, would be prepared for construction projects on campus, as described in Impact HAZ-2, which would result in the abatement or remediation of any identified contamination prior to construction on campus. Likewise, standard due diligence reviews would be conducted prior to land sales or transfers or prior to development to identify known or potential areas of contamination that would need to be abated or remediated prior to construction on non-CSU cumulative development sites. Additional requirements would also be implemented for these non-CSU cumulative projects, through compliance with federal and state requirements related to the abatement or remediation of site contamination.

Given the above, construction of the Project and other cumulative development would not result in a substantial increase in the risk that people or the environment would be exposed to hazardous materials through routine use or accidental release of such materials. Therefore, the cumulative impacts related to hazards and hazardous materials during construction would be *less than significant*.

Operation

Significant cumulative impacts related to operational hazards and hazardous materials could occur if the incremental impacts of the Project combined with those of one or more of the cumulative projects would cause a substantial increase in risk that people or the environment would be exposed to hazardous materials through routine use or accidental release of such materials (as described in Impacts HAZ-1 and HAZ-3).

As indicated in Impacts HAZ-1 and HAZ-3, the campus would continue to routinely use, store and transport hazardous materials on campus with growth under the Project. Many of the cumulative projects identified in Table 4.0-1 would also require the transport, use, and storage of hazardous chemicals. However, none of the cumulative projects would be expected to store or handle large quantities of hazardous materials on or immediately adjacent to the campus, except perhaps the Concourse Auto Dealership. If large quantities would be handled by one or more of the cumulative projects, such projects would be required to implement a Hazardous Materials Business Plan and comply with applicable regulations, including those governing containment, site layout, and emergency response and notification procedures in the event of a spill or release. Transportation and disposal of wastes, such as spent cleaning solutions, would also be subject to regulations for the safe handling, transportation, and disposal of chemicals and wastes (see Section 4.7.2, Regulatory Framework and Impacts HAZ-1 and HAZ-3). As such, operation of the Project and other cumulative development would not result in a substantial increase in the risk that people or the environment would be exposed to hazardous materials through

routine use or accidental release of such materials. Therefore, the cumulative impacts related to hazards and hazardous materials during operations would be *less than significant*.

Emergency Response and Wildfire Risks

The geographic scope for cumulative emergency response and wildfire impacts is Monterey County given wildfires can cause impacts to large areas. As indicated in Impact HAZ-5, the closest Very High Hazard Severity Zones are located approximately 1.6 miles or more to the southeast of East Campus Housing and approximately 3.3 miles to the east of other developed portions of the CSUMB campus in the undeveloped portions of the former Fort Ord and the closest SRA area is located approximately 5 miles or more away from the campus (see Figure 4.7-1). Wildfire-related impacts in Monterey County could be significant if development is in rural or very high fire hazard areas that could exacerbate wildfire risks. While new development and infrastructure would be subject to statewide standards for fire safety in the California Fire Code it is still possible that cumulative development projects could exacerbate wildfire risks such that cumulative impacts would potentially significant. In the immediate vicinity of the campus, this cumulative risk would be lower, given exiting urbanization and the distance to designated Very High Hazard Severity Zones and SRAs.

Given that the Project would not substantially impair an adopted emergency response or evacuation plan, exacerbate wildfire risk, require the installation or maintenance of infrastructure that would exacerbate wildfire risk, cause a significant risk of loss, injury, or death, involving wildland fires, or expose people or structures to significant post-fire risks, as indicated in Impacts HAZ-4 and HAZ-5, the Project would not have a considerable contribution to a significant cumulative impact. Therefore, the cumulative impact would be *less than significant.*

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