

3.2 HAZARDS AND HAZARDOUS MATERIALS

INTRODUCTION

This section evaluates potential environmental impacts on human health and the environment due to exposure to hazards and hazardous materials present or potentially present on the project site. This section also evaluates the potential effects on the surrounding area as a result of the implementation of the proposed project. For the purpose of this analysis, the terms hazards and hazardous materials include substances that, because of their quantity, concentration, or characteristics, may present moderate danger to public health, welfare, or the environment upon being released.

Information used to prepare this section was taken from the following sources:

- *Environmental Assessment for the Disposal and Reuse of the Desiderio US Army Reserve Center (USARC)*, prepared by the US Army Corps of Engineers, June 2004,
- *Phase One Environmental Site Assessment Report*, prepared by the Pacific Environmental Company, May 2007,
- *Asbestos and Lead-Based Paint Survey Report*, prepared by the Pacific Environmental Company, April 2007
- *Environmental Conditions of Property Report*, Desiderio Hall USARC, prepared by the US Army Corps of Engineers, March 2012.

The full reports can be found in **Appendix 3.2** of this EIR.

ENVIRONMENTAL SETTING

Hazardous Material

A number of properties may cause a substance to be considered hazardous, including toxicity, ignitability, corrosivity, or reactivity. Hazardous materials are defined as any solid, liquid, or gas that can harm people, other living organisms, property, or the environment. A hazardous material may be radioactive, flammable, explosive, toxic, corrosive, biohazards, an oxidizer, an asphyxiant, a pathogen, an allergen, or may have other characteristics that render it hazardous in specific circumstances. Issues associated with hazardous materials develop when such materials are improperly stored, transported, used, or released into the environment.¹

¹ California Code of Regulations, Title 22, Section 66084.

Hazardous Waste

Once a hazardous material is ready for discard, it becomes a hazardous waste. For the purposes of this EIR, hazardous waste is any hazardous material that is abandoned, discarded, or recycled.² In addition, hazardous wastes occasionally may be generated by actions that change the composition of previously non-hazardous materials. The same characteristics that define a hazardous material are also applied to hazardous waste, toxicity, ignitability, corrosivity, or reactivity.

Past Uses and Operations on the Project Site

Historical information sources suggest that the site was formerly part of the South Kenton Poultry Farm and then part of the Vista del Arroyo Hotel complex built in 1903. In 1943, the War Department acquired the Vista del Arroyo Hotel and Bungalows complex, converting its use to a hospital and offices for the US Army. This included what is now the Desiderio USARC. Originally known as the Pasadena Area Station Hospital, it was later renamed McCormack General Hospital. In 1949, the hospital was deactivated. In 1951, the hospital was converted to use as the Pasadena Area Support Center. The former McCormack General Hospital and the Pasadena Area Support Center had main administrative offices/hospital located at 125 South Grand Avenue. The support structures/buildings were located on what is now the Desiderio USARC at 655 Westminster Drive.

In 1956, the US Army Reserve (USAR) facilities were constructed on the southern portion of the Desiderio USARC property. The northern portion of the USARC property and the old Pasadena Support Center were transferred to the General Services Administration from 1964 to 1973 and used for various federal offices. During this time it is surmised from the 1970 Sanborn map that many of the support buildings that supported the hospital and the Pasadena Area Support Center were demolished, as they were removed from the maps. These structures included cold storage, unheated storage, and vehicle maintenance shops. In the mid-1970s, the USAR acquired the northern portion of the Desiderio USARC lot. This area was paved at the time and was repaved when acquired.

Since its construction in 1956, the site has functioned primarily as an administrative, logistical, and educational facility, with limited maintenance of military vehicles occurring in the Organizational Maintenance Shop (OMS) building. An adjoining assembly hall is attached to the USARC building to the north. The administrative building is a two-story structure with a former firing range on the southeast

² California Health and Safety Code, Section 25124

portion of the second floor. The firing range has been removed and abated, together with associated equipment that was contaminated with lead dust.³

The OMS building is a single-story structure formerly used to perform limited maintenance activities on military equipment. Activities inside the OMS building were limited to preventative maintenance checks, including checking vehicle fluids such as motor oil, water and antifreeze, and light maintenance activities. Any equipment requiring heavier maintenance activities was sent to an Area Maintenance Support Activity shop located at one of the other Reserve Centers. Equipment requiring major overhaul was also sent off-site. A concrete and steel grease rack was located just east of the OMS building and was used to service vehicles. In accordance with army policy, this type of grease rack was removed from service in 2003 due to safety concerns.

Historical aerial photographs and topography maps were the primary source of information on the past use and operations at the site. The findings of these maps are provided in correspondence between the US Army and the Department of Toxic Substances Control (DTSC) and are summarized below. The complete correspondence is provided in **Appendix 3.2**.

The 1915 US Geological Survey (USGS) Topographical Map shows the project site as undeveloped. In the 1938 aerial photograph, the property contains structures but, due to picture quality, the nature of the buildings is undetermined. The 1953 USGS topographic map shows the Westminster Road and Colorado Street Bridge, but no structures on the project site. In the 1956 aerial photograph the construction of the USARC building and OMS is visible. A complex of structures is visible north of the property; however, no information is available to identify these structures. In the 1965 aerial photograph some of the structures north of the site are replaced with a parking lot and the storage building is visible. Few changes have occurred to the site since the 1965 aerial.

At the request of DTSC, additional research was conducted to gather information regarding the history and use of the northern portion of the site. The 1950 Sanborn Map lists an “Ordinance Maintenance Shop” as Building T-225. The use of the word “Ordinance” is not a reference to “Ordnance” or military munitions. Based on research with Fort MacArthur Museum, there is no indication that maintenance on ordnance (military munitions) was ever conducted at this location.⁴ It is more likely that building T-225 was a vehicle maintenance shop, which also historically was referred to as “ordinance maintenance.”

³ *Environmental Conditions of Property Report, Desiderio Hall, US Army Corps of Engineers,, April 2007*

⁴ *Environmental Conditions of Property Report, Desiderio Hall, US Army Corps of Engineers, March 2012*

Asbestos

Asbestos, a naturally occurring fibrous material, was used for years in many building materials for its fireproofing and insulating properties. Loose insulation, ceiling panels, and brittle plaster are potential sources of friable (easily crumbled) asbestos. Non-friable asbestos is generally bound to other materials such that it does not become airborne under normal conditions. Any activity that involves cutting, grinding, or drilling during demolition or relocation of underground utilities could release friable asbestos fibers unless proper precautions are taken. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making friable materials the greatest potential health risk. Asbestos-related health problems include lung cancer and asbestosis.

In 2007 the City commissioned an asbestos and lead-based paint inspection of the facilities.⁵ A visual assessment of the suspect building materials located throughout the facilities was completed prior to the collection of samples and identified all building materials suspected of asbestos containing material (ACM). ACM identified on the property site include:⁶

- USARC Building – exterior stucco, drywall joint compound, and window putty
- OMS – exterior stucco and roofing materials
- Garage building – exterior stucco

The Army inspected the ACM on the Property in February 2012. The ACM on the property was in relatively good condition and is non-friable.⁷

Lead

Lead is a naturally occurring metallic element. Among its numerous uses and sources, lead can be found in paint, water pipes, solder in plumbing systems, and in soils around buildings and structures painted with lead-based paint. In 1978, the federal government required the reduction of lead in house paint to less than 0.06 percent (600 parts per million). Due to its toxic properties, lead is regulated as a hazardous material. Excessive exposure to lead can result in the accumulation of lead in the blood, soft tissues, and bones. Children are particularly susceptible to potential lead-related health problems because it is easily absorbed into developing systems and organs. Inspection, testing, and removal (abatement) of lead-

⁵ *Asbestos and Lead-Based Paint Survey Report*, prepared by the Pacific Environmental Company, April 2007

⁶ *Asbestos and Lead-Based Paint Survey Report*, prepared by the Pacific Environmental Company, April 2007

⁷ *Environmental Conditions of Property Report*, Desiderio Hall USARC, prepared by the US Army Corps of Engineers, March 2012

containing building materials must be performed by state-certified contractors who are required to comply with applicable health and safety and hazardous materials regulations. Similar to asbestos, many buildings constructed prior to 1978 contain lead in paint or other sources.

The lead-based paint inspection considered all painted surfaces with readings at or above 1.0 milligram per square centimeter (mg/cm²) positive for lead-based paint.⁸ Lead components were identified on exterior and interior areas. Lead was found on exterior metal window and doorframes, the garage door and frame, and the roll up doorframe and drill hall. The interior inspection identified lead components on the metal doorframes, along the stairway railings and the drill hall ceiling beams, on the doors in Room 11 and in the Drill Hall, on the chalkboard in Room 212, and the ceramic tile in the women and men's bathroom.⁹

Polychlorinated Biphenyls

Polychlorinated Biphenyls (PCBs) are organic chemicals, usually in the form of oil, that were formerly used in electrical equipment, including transformers and capacitors, primarily as electrical insulators. PCBs, which are highly persistent in the environment, can cause various human health effects, including liver injury, irritation of the skin and mucous membranes, and adverse reproductive effects. It is also a suspected human carcinogen. In California, PCB containing materials must be disposed of as hazardous waste.

While no transformers are located on the facility, PCBs may be present in a buried electrical equipment vault located west of the USARC building and in older-style fluorescent light fixture ballasts that may be in use in the buildings. The site has not been evaluated for the presence of PCBs.

On-Site Uses of Hazardous Materials

Historical uses of underground storage tanks, a grease rack, a wash rack, janitorial cleaning supplies, and an oil/water separator that were used in conjunction with motor pool activities at the project site have the potential to affect the environmental conditions in the area. The 2007 Phase One Environmental Site Assessment Report indicates that these hazardous items have not affected the environmental conditions of the project site¹⁰. It has been suggested that sampling at the invert should be conducted at the time of demolition to verify the past integrity of the structure. Nevertheless, according to the 2007 Report

⁸ *Asbestos and Lead-Based Paint Survey Report*, prepared by the Pacific Environmental Company, April 2007

⁹ *Asbestos and Lead-Based Survey Report*, the Pacific Environmental Company, April 2007

¹⁰ *Phase One Environmental Site Assessment Report*, the Pacific Environmental Company, May 2007

historical uses on the project site or of neighboring parcels have not contaminated the environmental conditions of the project site.

The March 2001 CDM Federal Site Investigation Report, which documents investigation of a grease rack on the northern portion of the property, states several soil vapor samples (Senate Bill [SB]-8, SB-9, SB-10, and SB-11) were collected south of the Colorado Street Bridge in the northern portion of the Desiderio USARC. SB-8 was collected within 175 feet of the shop and SB-10 was collected within 150 feet of the shop. SB-9 was collected 250 feet from the shop and SB-11 is 256 feet from the shop. The results of all samples collected were non-detect (ND) for volatile organic compounds (VOCs). Based on the sandy alluvial soil type in this area, VOCs would have been detected even at low levels if there were any solvent use in the shop. Therefore, the USAR determined further sampling in closer proximity to the ordinance maintenance shop not to be necessary because it would not be likely to yield any further confirmation of the presence of VOCs.¹¹

Additionally, the storage building at Desiderio USARC was previously identified as an auto repair shop on the 1970 Sanborn map. The March 2001 CDM Federal Site Investigation Report states the SB-11 VOC sample point was located about 30 feet from the storage building; SB-9 and SB-10 are located about 80 feet from the building; and SB-8 is located about 100 feet from the building. Each of these samples were non-detect for VOCs; additionally, SB-9 was non-detect for TEPH (total extractable petroleum hydrocarbons)-diesel and TEPH-oil and had all metals samples below preliminary remediation goals (PRGs), except arsenic. Arsenic was determined to be at background levels. Based on this information and other information presented above, this area is not an area of concern.¹² DTSC concurred with this assessment and in 2012 issued a No Further Action letter.¹³

On-Site Storage and Handling Areas

Janitorial chemicals and building maintenance-related products were stored in the USARC building. These chemicals were kept in a designated area in the janitorial closet. Designated areas in the OMS building may have housed vehicle maintenance products and small amounts of petroleum, oil, and lubricants. Additional potentially hazardous materials and petroleum, oil, and lubricants products would have been stored in the outdoor HAZMAT storage building located north of the OMS building.

¹¹ *Environmental Conditions of Property Report*, Desiderio Hall, US Army Corps of Engineers March 2012

¹² *Environmental Conditions of Property Report*, Desiderio Hall, US Army Corps of Engineers March 2012

¹³ Correspondence from Charles Ridenour, Branch Chief, DTSC Cleanup Program. January 2012.

In May 2007, the City of Pasadena conducted a Phase I Environmental Site Assessment at the Property.¹⁴ This investigation found records of the removal of three underground storage tanks (USTs) from the property. The Pasadena Fire Department has files documenting the removal of three underground storage tanks located on the site. The tank capacities were 1,000 gallons, 1,500 gallons, and 5,000 gallons and were used to store diesel and gasoline for the former motor pool operations. The tanks were installed at the site in 1958 and were initially closed in 1978 by being capped and filled with sand. The three tanks were removed in 1989. The City's Inspector was on-site during the removal of the tanks and sampling was completed per the City's direction. The results of the analysis indicated that the tanks had not leaked and the Fire Department did not require any additional action.¹⁵

On-Site Contamination and Cleanup

The 2012 Environmental Condition of Property Report, prepared by the USAR classified the site as a Category 1 Site which is defined as an area where no release or disposal of hazardous substances or petroleum products have occurred (including no migration of these substances from adjacent areas).¹⁶ The project site is listed on the EnviroStor database; however the DTSC has classified the two sites, the Pasadena Area Support Center (Military Evaluation) and the Pasadena Desiderio Hall (State Response) as "no further action needed." In addition the US Army Corp of Engineers confirmed this finding in December 2011.¹⁷

As stated, activities with the potential to contaminate the Property and surrounding area have occurred in the past. Hazardous materials, including USTs have been properly removed from the site, and soil samples revealed no contamination from the USTs, the grease rack, or janitorial and vehicle chemicals formerly used on-site.

The former indoor firing range area was located on the second floor of the USARC building. The firing range was constructed in 1956 and used until 1982. A lead abatement project was undertaken and completed at the site in June 1997. Bullets were captured in a pit, containing 16 to 18 inches of sand, downrange of the firing line. Prior to the 1997 abatement activities, the contents of the pit, mostly lead contaminated sand, had been removed and those materials transported off-site as hazardous waste.¹⁸

¹⁴ *Phase One Environmental Site Assessment Report*, the Pacific Environmental Company, May 2007

¹⁵ *Environmental Conditions of Property Report*, Desiderio Hall, US Army Corps of Engineers March 2012

¹⁶ *Environmental Conditions of Property Report*, Desiderio Hall, US Army Corps of Engineers March 2012

¹⁷ DTSC Response Letter, US Army Reserve December 2011

¹⁸ *Environmental Conditions of Property Report*, Desiderio Hall, US Army Corps of Engineers – Louisville District, April 2007

REGULATORY FRAMEWORK

Environmental Protection Agency (EPA)

The EPA's mission is to protect human health and the environment. The organization takes action to reduce risks associated with exposure to chemicals in commerce, indoor and outdoor environments, and products and food. The EPA continues to oversee the introduction and use of pesticides, improve their Integrated Risk Information System (IRIS) program, reduce radon risks, identify and address children's health risks in schools and homes, and improve chemical management practices. Oversight of chemical storage and manufacturing in coordination with their interagency partners remains a key focus of the organization, as well as efforts to reduce urban air toxics.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA," generally referred to as "Superfund") was enacted by Congress on December 11, 1980. CERCLA provides broad federal authority to respond directly to releases (or threatened releases) of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List (NPL) sites, which is the list of hazardous waste sites eligible for long-term remedial action financed under the federal Superfund program. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions, clarifications, and technical requirements were added to the legislation, including additional enforcement authorities.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) gives the US Environmental Protection Agency (USEPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste by "large-quantity

generators” (1,000 kilograms/month or more). Under RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed at a facility, any treatment, storage, or disposal unit must be permitted under RCRA. Additionally, all hazardous waste transporters are required to be permitted and must have an identification number. RCRA allows individual states to develop their own program for the regulation of hazardous waste as long as it is at least as stringent as RCRA. In California, the USEPA has delegated RCRA enforcement to the State of California.

Department of Transportation

The Secretary of the Department of Transportation receives the authority to regulate the transportation of hazardous materials from the Hazardous Materials Transportation Act (HMTA), as amended and codified in 49 USC 5101 et seq. The Secretary is authorized to issue regulations to implement the requirements of 49 USC The Pipeline and Hazardous Materials Safety Administration (PHMSA) (formerly the Research and Special Provisions Administration [RSPA]) was delegated the responsibility to write the hazardous materials regulations, which are contained in 49 Code of Federal Regulations (CFR) Parts 100–180. Under the HMTA the Secretary

may authorize any officer, employee, or agent to enter upon inspect, and examine, at reasonable times and in a reasonable manner, the records and properties of persons to the extent such records and properties relate to: (1) the manufacture, fabrication, marking, maintenance, reconditioning, repair, testing, or distribution of packages or containers for use by any “person” in the transportation of hazardous materials in commerce; or (2) the transportation or shipment by any “person” of hazardous materials in “commerce.”

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act, which is implemented by the Federal Occupational Safety and Health Administration (OSHA), contains provisions with respect to hazardous materials handling. Federal OSHA requirements, as set forth in Title 29 of the CFR Section 1910, et. seq., are designed to promote worker safety, worker training, and a worker’s right-to-know. In California, OSHA has delegated the authority to administer OSHA regulations to the State of California.

Title 49 of the CFR, which contains the regulations set forth by the Hazardous Materials Transportation Act of 1975, specifies additional requirements and regulations with respect to the transport of hazardous materials. Title 49 of the CFR requires that every employee who transports hazardous materials receive training to recognize and identify hazardous materials and become familiar with hazardous materials

requirements. Drivers are also required to be trained in operations of their equipment and commodity specific requirements.

California EPA

The California EPA oversees The DTSC whose mission it is to protect California's people and environment from harmful effects of toxic substances through the restoration of contaminated resources, enforcement, regulation, and pollution prevention. The DTSC regulates hazardous waste, cleans-up existing contamination, and looks for ways to reduce the hazardous waste produced in California. Approximately 1,000 scientists, engineers, and specialized support staff ensure that companies and individuals handle, transport, store, treat, dispose of, and clean-up hazardous wastes appropriately. Through these measures, DTSC contributes to greater safety for all Californians, and less hazardous waste reaches the environment.

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal OSHA) has set forth work requirements for disturbance of Asbestos Containing Construction Materials (ACCMs) including removal operations for all types of ACCMs. In addition, the agency has developed standards for general industry and the construction industry hazardous waste operations and emergency response. Cal OSHA ensures that employers must have controls to reduce and monitor exposure levels of hazardous materials, an informational program describing any exposure during operations and the inspection of drums and containers prior to removal or opening. Decontamination procedures and emergency response plans must be in place before employees begin working in hazardous waste operations.

California Office of Emergency Services

The California Office of Emergency Services (CAL OES) Hazardous Materials (HazMat) Section under the Fire and Rescue Division coordinates statewide implementation of hazardous materials accident prevention and emergency response programs for all types of hazardous materials incidents and threats. In response to any hazardous materials emergency, the section staff is called upon to provide state and local emergency managers with emergency coordination and technical assistance.

California Code of Regulations Title 8

This section of the California Code of Regulations (CCR) regulates asbestos exposure in all worked defined in the Code's Section 1502 including, demolition or salvage of structures where asbestos is present, removal or encapsulation of materials containing asbestos, construction, alteration, repair,

maintenance, or renovation of structures, substrates, or portions thereof, that contain asbestos, installation of products containing asbestos, asbestos spill/emergency cleanup, transportation, disposal, storage, containment of and housekeeping activities involving asbestos or products containing asbestos, on the site or location at which construction activities are performed, and excavation which may involve exposure to asbestos as a natural constituent which is not related to asbestos mining and milling activities.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to but more stringent than the federal Resource Conservation and Recovery Act program. The Act is implemented by regulations contained in Title 26 of the CCR, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) requires the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are: Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (a.k.a. Tiered Permitting); Aboveground Petroleum Storage Tank Spill Prevention Control and Countermeasure Plan (SPCC); Hazardous Materials Release Response Plans and Inventory Program (a.k.a. "Hazardous Materials Disclosure" or "Community Right To Know"); California Accidental Release Prevention Program (Cal ARP); Underground Storage Tank (UST) Program; and Uniform Fire Code Plans and Inventory Requirements. The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental

health or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA.

Hazardous Materials Release Response Plans and Inventory Act of 1985

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

Hazardous Waste Source Reduction and Management Review Act of 1989

This Act requires generators of 12,000 kilograms/year of typical/operational hazardous waste to conduct an evaluation of their waste streams every four years and to select and implement viable source reduction alternatives. This Act does not apply to non-typical hazardous waste (such as asbestos and polychlorinated biphenyls).

California Vehicle Code

The California Vehicle Code (Title 13 of the CCR) establishes regulations for motor carrier transport of hazardous materials. For example, all motor carrier transporters of hazardous materials are required to have a Hazardous Materials Transportation license issued by the California Highway Patrol. In addition, placards identifying that hazardous materials are being transported must be displayed on the vehicle.

California Health and Safety Code

The transport of hazardous waste materials is further governed by the California Health and Safety Code Section 25163 and Title 22, Chapter 13, of the CCR. Specifically, Section 25163 of the California Health and Safety Code requires transporters of hazardous waste to hold a valid registration issued by the DTSC in his/her possession while transporting hazardous waste. Additionally, Title 22, Chapter 13 of the CCR includes a number of requirements, which include, but are not limited to, the following:

- Transporters shall not transport hazardous waste without first receiving an identification number and a registration certificate from DTSC.
- Registration as a hazardous waste transporter expires annually, on the last day of the month in which the registration was issued.

- To be registered as a hazardous waste transporter, an application must be submitted.
- Hazardous waste shall not be accepted for transport without a Uniform Hazardous Waste Manifest that has been properly completed and signed by generator and transporter.
- Hazardous waste shall be delivered to authorized facilities only.

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) maintains rules and regulations pertaining to asbestos abatement. Air Quality Management District (AQMD) Rule 1403, adopted by the SCAQMD on October 6, 1989, establishes survey requirements, notification, and work practice requirements to prevent asbestos emissions from emanating during building renovation and demolition activities.

Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the EPA. As such, AQMD Rule 1403 incorporates the requirements of the federal asbestos requirements found in National Emission Standards for Hazardous Air Pollutants (NESHAP) found in the Code of Federal Regulations (CFR) Title 40, Part 61, Subpart M.

The EPA delegated to SCAQMD the authority to enforce the federal asbestos NESHAP and the SCAQMD is the local enforcement authority for asbestos.

City of Pasadena General Plan Safety Element

The Safety Element identifies various policies addressing natural and human-related hazards, and the potential methods to reduce risks associated with those hazards. The Safety Element policies specifically related to hazards and hazardous materials are included below:

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| Goal H-1 | Reduce the potential for hazardous contamination on the City |
| Program H-1.1 | The City will continue the enforcement of disclosure laws that require all users, producers, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use, or transport, and to notify the appropriate City, County, State, and Federal agencies in the event of a violation. |
| Program H-1.2 | The City will identify City roadways along which hazardous materials are routinely transported. If critical facilities, such as schools, hospitals, child care centers or other facilities with special evacuation needs are located along these routes, identify emergency response plans that these facilities can implement in the event of an unauthorized release of hazardous materials. |

- Policy H-1.3: New proposed facilities involved in the production, use, storage, transport or disposal of hazardous materials will be located a safe distance from land uses that may be adversely impacted by such activities. Conversely, new sensitive facilities shall not be allowed to be located near existing sites that use, store or generate hazardous materials.
- Policy H-1.4 The City shall assure the continued response to and capability of handling hazardous materials incidents in the City and along the sections of freeways that extend across the City.
- Policy H-1.5: The City will continue to encourage residents and businesses to reduce or eliminate the use of hazardous materials. This includes encouraging residents to buy toxic substances in only the amount needed to do the job, or better yet, to use safer non-toxic alternate products that do not pose a threat to the environment.
- Program H-1.6: The City will continue to support the operation of recycling centers that take hazardous substances, such as paint, paint thinner, used waste oil, etc.

City of Pasadena Municipal Code

Chapter 8.80.070 Notice of Hazardous Materials

This provision of the Pasadena Municipal Code requires that businesses that store or use hazardous materials inform all persons entering the premises, as required by the fire chief. Such information may be transmitted by the posting of signs, color coding, posting of lists of materials, maintaining a material safety data sheet on the business premises, or other notice as may be deemed necessary by the fire chief.

ENVIRONMENTAL IMPACTS

Thresholds of Significance:

The following thresholds for determining the significance of impacts related to hazards and hazardous materials were taken from the proposed project's initial study. Impacts related to hazardous materials are considered significant if the project would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school; or
- be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

Impact Analysis

Each applicable threshold of significance is listed below followed by analysis of the significance of any potential impacts and the identification of mitigation measures that would lessen or avoid potential impacts. Finally, the significance of potential impacts after implementation of all identified mitigation measures is presented.

Threshold 3.2-1 Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous material?

Hazardous materials would be used in limited amounts during construction and operation of the proposed project. The types and quantities of hazardous materials that could be present include general maintenance products (e.g., paints, solvents, cleaning products, pesticides/herbicides).

Exposure of construction workers, residents, and park patrons to hazardous materials could occur in the following manner: improper handling or use of hazardous materials or hazardous wastes during construction or operation of the project, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion or other emergencies. Construction workers could be exposed to hazards associated with accidental releases of hazardous materials, which could result in adverse health effects. The types and amounts of hazardous materials would vary according to the nature of the activity. In some cases, it is the type of hazardous material that is potentially hazardous; in others, it is the amount of hazardous material that could present a hazard. However, the types of uses on the project site (a park and residential uses) do not typically transport, use, or dispose of hazardous materials in quantities that could be harmful.

Hazardous materials regulations, which are codified in Titles 8, 22, and 26 of the CCR, and their enabling legislation set forth in Chapter 6.95 of the Health and Safety Code, were established at the state level to ensure compliance with federal regulations to reduce the risk to the human health and the environment from the routine use of hazardous substances. These regulations must be implemented by employers/businesses, as appropriate, and are monitored by the state (e.g., OSHA in the workplace or DTSC for hazardous waste) and/or local jurisdictions (e.g., the Pasadena Fire Department). Compliance

with existing regulations would ensure that impacts related to the transport, use or disposal of hazardous materials would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measure: None required.

Level of Significance After Mitigation: Less than significant.

Threshold 3.2-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The proposed reuse of the Desiderio USARC would require demolition of the site's four permanent buildings and its paved parking areas. There is the potential for release and expose of hazardous materials into the environment during demolition activities. Construction workers involved in demolition activities could also come into contact with fixtures containing lead, asbestos, PCBs or other hazardous materials. In addition to human contact, improper removal of these substances could result in accidental releases that could contaminate soil or result in improper disposal.

Asbestos – Asbestos Containing Material (ACM) has been identified in the USARC, the garage, and is suspected in the OMS building. Any existing ACM found in the buildings would require abatement prior to demolition by trained and qualified asbestos personnel. Removal and disposal would be in accordance with federal and state regulations.

Lead-based paint – The identified defective lead-based paints must be treated and made intact prior to demolition. The greatest potential for lead exposure from lead painted architectural components occurs when the paint has become defective, when the paint is applied to a friction or impact component where the paint is continually disturbed or when the paint is disturbed through routine maintenance, renovation, or demolition activities. The deed of transfer would include a lead-based paint warning and covenant. OSHA 29 CFR 1926.62 regulates all demolition or salvage of structures where lead or material containing lead is present to guarantee the safety and healthy working conditions of employees.

PCBs – PCBs may be present in equipment in a buried electrical vault and in older-style fluorescent light fixture ballasts in the USARC and OMS buildings. Ballasts located on the site that are not marked "No PCBs" should be assumed to contain PCBs and must be managed in accordance with all appropriate federal and state environmental laws, rules, and regulations. In addition, the equipment and older-style fluorescent light fixture ballasts will be tested for presence of PCBs. Building materials containing any

hazardous substances would be handled, transported, and disposed of off-site in accordance with applicable laws and regulations prior to building removal.

The lead-based paint and ACMs present in the buildings planned for demolition could expose construction workers and nearby residents and workers to lead-based paint dust and/or asbestos fibers in the air. Exposure pathways by which receptors could be exposed to hazardous materials include any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

Construction workers involved in demolition activities could also come into contact with fixtures containing PCBs or other hazardous materials. In addition to human contact, improper removal of these substances could result in accidental releases that could contaminate soil or result in improper disposal.

Various state and federal regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos, lead, and PCBs have been adopted for demolition activities. These requirements include SCAQMD rules and regulations pertaining to asbestos abatement, Title 8 of the California Code of Regulations pertaining to lead and asbestos, the Code of Federal Regulations pertaining to asbestos, and lead exposure guidelines provided by the US Department of Housing and Urban Development (HUD). PCBs are regulated under the federal Toxic Substances Control Act, and any PCB-containing materials must be disposed of as hazardous waste. In California, asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the State Department of Health Services. In addition, Cal OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards.

The rules and regulations noted above would be followed during the proposed project's construction activities. Compliance with these regulations would ensure that construction workers and the general public would not be exposed to any unusual or excessive risks related to hazardous materials during construction activities. Even still, impacts associated with the exposure of construction workers and the public to hazardous materials during demolition activities could still be potentially significant as demolition activities can create unpredictable conditions.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measure:

- 3.2-1** Prior to issuance of a demolition permit, the City shall prepare a hazardous materials action plan in coordination with the City Fire Department. The plan shall provide clear direction as to the removal of known hazardous materials on the project site (ACMs, lead, and PCBs). Information included in the plan shall include the party responsible for the removal, applicable state and federal compliance measures, and a plan for disposal of hazardous materials.

Level of Significance After Mitigation: Compliance with existing state and federal laws related to hazardous materials clean up, as well as preparation of an action plan created by the City to address the removal of hazardous materials will ensure impact will be less than significant.

Threshold 3.2-3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Three schools currently operate within 0.25 mile of the project site. A brief description of each school is provided below:

- Pacific Oaks Children’s School was founded in 1906 and was the first public kindergarten in Pasadena. Today the private preschool offers educational instruction for children ages six months through six years of age. The school is located approximately 0.2 mile from the project site.
- Westridge School was founded in 1913 and is a private education institution for girls in 4th grade through 12th grade. The school is located approximately 0.9 mile from the project site.
- Mayfield Senior School was founded in 1931 and is a private education institution for girls in 9th grade through 12th grade. The school is located approximately 0.3 mile from the project site.

As discussed above during demolition of the existing structures, construction workers could be exposed to hazardous materials due to the presence of ACMs, lead-based paint, and PCBs that currently exist on the project site. However, as discussed under **Threshold 3.2-2**, above, these materials would be removed and disposed of in accordance with state and federal regulations. Further, implementation of **Mitigation Measure 3.2-1** would ensure hazardous materials would be handled appropriately and in accordance with state and federal regulations. Therefore, with the implementation of **Mitigation Measure 3.2-1** construction of the proposed project would not result in the release of hazardous materials within 0.25 mile of an existing school.

Operation of the proposed project includes the development of the site with a 3.87-acre neighborhood park and nine single-family homes. The proposed uses would not generate hazardous materials and therefore would not release hazardous materials within 0.25 mile of an existing school. Thus, impacts would be less than significant.

Level of Significance Before Mitigation: Potentially significant during construction.

Mitigation Measures: Implementation of **Mitigation Measure 3.2-1**, above.

Level of Significance After Mitigation: Less than significant. With the implementation of **Mitigation Measure 3.2-1**, construction related impacts would be less than significant.

Threshold 3.2-4 **Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Government Code Section 65962.5 requires the DTSC to annually report all hazardous waste facilities subjective to corrective action by the DTSC because a facility owner/operator has failed to comply with a date for taking corrective action or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.¹⁹ As stated above, the appropriate measures have been taken to remove prior hazardous materials on the property. The project site is listed in the EnviroStor database; however the DTSC has classified the site as “no further action needed.” In addition the USAR has concluded that no further sampling is necessary on the project site and concurs with the DTSC’s finding²⁰. As a result, the site does not pose a significant hazard to the public or the environment.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measure: None required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

This cumulative impact analysis considers development of the proposed project, in conjunction with other development within the vicinity of the project in the City of Pasadena. Risks associated with

¹⁹ Government Code Section 65962.5

²⁰ DTSC Response Letter, US Army Reserve December 2011

hazardous materials are largely site specific and localized, and are thus limited to the project site. Additionally, site-specific investigations would be conducted at sites where contaminated soils or groundwater could occur to minimize the exposure of workers to hazardous substances. As such, the potential for cumulative impacts to occur is limited.

Although each development site has potentially unique hazardous materials considerations, it is expected that future projects will comply with the range of federal, state, and local statutes and regulations applicable to hazardous materials, and will be subject to existing and future programs of enforcement by the appropriate regulatory agencies. For these reasons, cumulative impacts resulting from the use, transport, and disposal of hazardous materials, or risk of upset from a release of hazardous materials, would be less than significant and the project's contribution would not be cumulatively considerable.

Related development in the City could result in redevelopment of an existing site, which could entail the demolition of existing structures, which may contain hazardous materials. Adherence to applicable regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos, lead, and other hazardous materials would ensure that impacts from those activities would not be cumulatively considerable.

Development of cumulative projects could expose construction workers and the general public to potentially hazardous substances. For example, if demolition of existing buildings is required, short-term increases in hazardous materials generation due to the presence of lead-based paints and asbestos-containing materials in existing facilities could occur. However, projects would be required to comply with applicable federal, state, and local regulations. All demolition activities that would involve asbestos or lead-based paint would comply with SCAQMD Rule 1403 and OSHA Construction Safety Orders that would ensure hazardous materials impacts would be less than significant. Site-specific investigations would be conducted at sites where contaminated soils could occur to minimize the exposure of workers to hazardous substances. Adherence to these requirements would ensure that impacts from exposure to substances in the soil would not be cumulatively considerable.

Level of Significance Before Mitigation: less than significant.

Mitigation Measures: None required.

Level of Significance After Mitigation: Less than significant.