

5.7 HAZARDS AND HAZARDOUS MATERIALS

The purpose of this section of the Draft Environmental Impact Report (EIR) is to identify, to the extent feasible, the potential for hazards associated with historic and current site uses, surrounding sites, and recognized environmental conditions in connection with the proposed project site and to identify potential risks to human health, including uses of the proposed project site, workers, and construction workers. Information in this section is based on the *Phase I Environmental Site Assessment, Henderson Road*, prepared by ENPLAN (February 2015 and February 2017) and the geological hazards section of the *Geotechnical Report, Mercy Wellness Campus*, prepared by CGI Technical Services, Inc. (April 2016). These reports are included in Appendix 15.6, PHASE I ENVIRONMENTAL SITE ASSESSMENT, and 15.4, GEOTECHNICAL REPORT, respectively. Additionally, the following analysis of the potential environmental impacts related to hazards and hazardous materials is also derived from the following sources available for review at the City of Redding Development Services Department, Planning Division:

- City of Redding. *2000 – 2020 General Plan*. October 2000.
- City of Redding. *Local Hazard Mitigation Plan*. November 2015.

5.7.1 ENVIRONMENTAL SETTING

HISTORICAL LAND USES

Historical land uses of the project area and vicinity include use by Native Americans, ranching, and a bridge crossing location in the 1800s. Other historic land uses include a diversion of river flow into a horizontal paddlewheel facility in the early 1900s; a forest production, cement plant, and gravel operation in the 1940s through the 1960s; a gravel operation used in the construction of Interstate 5 (I-5) during the 1960s and 1970s; a gasoline service station from 1972 to 1998; commercial uses, some of which were removed in 2007 and others were vacated in 2017; and staging for the Cypress Bridge Replacement Project in 2009 to 2010. Remnants of some of these land uses are visible today.

The proposed project has had a variety of land uses that have modified grades and resulted in the placement of fill materials and subsurface disturbance. According to the Phase I Environmental Site Assessment (Phase I ESA), much of the southwesterly project area was utilized as a concrete batch plant from before 1943 through 1993. This former batch plant likely accounts for the concrete slabs, foundations and walls due west of the existing Cobblestone Shopping Center. In addition, a number of aggregate mining areas were present onsite and visible in 1943 and 1955 aerial photographs. Development of these areas resulted in the development of ponds, which are mostly west of the proposed development area (outside of the proposed project); however, one pond appears to have been located north of and possibly beneath a portion of proposed Building 'A.'

SOILS

Artificial fill materials are present locally across the project site, according to the site assessment completed by CGI Technical Services, Inc. These fills are present behind retaining walls, in embankment areas, and in areas of the former ponds. The artificial fill materials range in thickness up to at least 12.5 feet (noted as DH-2 in the CGI report) and could be locally deeper.

The proposed project site, including where artificial fill materials are present, is underlain by alluvial soils derived from overbank deposits. Those soils are composed predominately of granular soils consisting of silty sand, silty gravel and gravel with varying amounts and sizes of cobbles and boulders. The full thickness of these alluvial deposits was not fully penetrated during exploration but is at least 110 feet thick (CGI, 2016). Near the northwest and central portions of the project, gravelly clay and sandy clay were encountered within the upper 12 to 14 feet of the soil profile.

HAZARDS

Wildland Fire

The recent Carr Fire was reported on the afternoon of July 23, 2018, at the intersection of State Route 299 (SR-299) and Carr Powerhouse Road, in the Whiskeytown district of the Whiskeytown–Shasta–Trinity National Recreation Area. The fire burned 229,651 acres, before it was 100 percent contained late on August 30, 2018, destroying at least 1,604 structures (1,077 homes) while damaging 277 others, becoming the sixth-most destructive fire in California history, as well as the seventh-largest wildfire recorded in modern California history. The Carr Fire cost over an estimated \$1.7 billion in damages, including \$1.5 billion in insured losses and more than \$158.7 million in suppression costs. Much of the area that burned within the City is located in the in the Very High Fire Hazard Severity Zone (VHFHSZ) as documented by CAL FIRE.

The City's *General Plan*, Health and Safety Element, identifies the proposed project site as not being located within an area designated as a VHFHSZ. Similarly, CAL FIRE has designated the proposed project site as being in an area of moderate wild land fire threat. The Carr Fire demonstrated that wildland fire can easily move into developed neighborhoods and destroy homes thought to be fire safe. However, design elements such as non-flammable exterior building materials, hardscape, water features, drought tolerant landscaping and green vegetation zones can provide reduced fire impacts. The proposed project is also located approximately 1.2 miles west of Redding Fire Department (RFD) Fire Station 5 that would provide the primary emergency response to the site and generally maintains a response time of between 4 and 5 minutes (refer to Section 5.12, PUBLIC SERVICES).

Radon

Radon isotope-222 is a colorless and odorless radioactive gas that is a natural decay product of uranium. Uranium and radon gas are present in varying amounts in soil and rocks, and radon is present in background concentrations in the atmosphere. There is current evidence that indicates that increased lung cancer rates are directly related to radon decay products. Radon gas and indoor exposure levels in the United States are under intense research by government regulators and the medical communities. The United States Environmental Protection Agency (EPA) has established an action level for indoor radon concentrations at or exceeding 4 pico-Curies per liter of air (pCi/L). When concentrations of radon exceed 4 pCi/L, the EPA recommends that owners take corrective measures to reduce exposures to radon gas.

According to the EPA's "Map of Radon Zones," the site is located within Zone 3. The EPA specifies that properties and counties located in Zone 3 have a predicted average indoor radon screening level below 2 pCi/L, which is substantially lower than the designated action level of 4 pCi/L. Site-specific radon conditions, however, can only be determined by sampling and testing existing and/or future buildings

located on the site. In addition, indoor radon concentrations can be affected by a number of variables, including building materials, site-specific geology, and quality of construction. As such, the EPA recommends that all owners test their homes for radon. Because the site is located within Zone 3, the likelihood of indoor radon concentrations exceeding the EPA-designated action level of 4 pCi/L is considered low.

5.7.2 ENVIRONMENTAL SITE ASSESSMENT FINDINGS

A Phase I ESA was prepared for the proposed project site in 2015 and 2017. The assessments reviewed federal and State agency databases that track sites with known hazardous materials uses or contamination. The Phase I ESA did not identify any potential or confirmed State or federal “Superfund” sites located on or within a one-mile radius of the project. Additionally, the site does not appear on the EPA Emergency Response Notification System database, or contain any businesses or facility that is listed as a Resource Conservation and Recovery Act generators. Searches were undertaken on files maintained by the following agencies:

- United States Environmental Protection Agency
- Department of Toxic Substances Control
- Office of Environmental Health Hazard Assessment
- Regional Water Quality Control Board, Central Valley Region
- California State Water Resources Control Board
- California Integrated Waste Management Board
- California Division of Oil and Gas
- Corrective Action Report
- Resource Conservation and Recovery Information System
- Shasta County Environmental Health Department

Historical Site Review

The Phase I ESA reviewed available historical property files and aerial photographs covering the nine parcels and facilities that comprise the proposed project (refer to Figure 5.7-1, PARCEL MAP). From 1894 to 1913 the proposed project consisted of undeveloped land. The majority of the site consisted of a concrete plant from 1943 to 1963, with the exception of residences located on Assessor’s Parcel Number (APN) 107-400-008. Hein J H Co. sand and gravel was located on the property from 1964 to 1967. By 1969, a commercial building was located on the northern end of the property on APN 107-430-059 (2390 Henderson Road), a concrete plant remained located on APNs 107-500-023, -024, and -025 (2511 Henderson Road), and APN 107-400-008 was used as a storage yard.

In 1980, a 23,000-square-foot commercial building was constructed on APN 107-500-017 (2440 to 2456 Henderson Road), and by 1983, greenhouses were added to APN 107-430-059. The greenhouses were removed from the property by 1993, the concrete plant was removed from the property by 1998, and the commercial building on APN 107-430-059 was demolished in 2007. The northern end of the property (APNs 107-430-059, 107500-019, and 107-500-020) was used as a storage yard and staging area for the Cypress Avenue bridge reconstruction project between 2009 and 2010. From 2012 to 2015, the property contained a commercial building on APN 107-500-017 (2442 to 2456 Henderson Road), old concrete building foundations on APNs 107-500-024 and -025, and vacant land.



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Parcel Map

Figure 5.7-1

The building on APN 107-430-059 (2390 Henderson Road) was occupied by C&L Transmission Repair from 1964 to 2007. Historic photographs indicate that this building consisted of a masonry block structure with a concrete slab foundation. The building was connected to a septic system. This facility contained a warehouse, five storage containers, and a shop/machine shop building. No underground storage tanks (USTs) or aboveground storage tanks (ASTs) were located on this parcel. Six controlled substances were used and stored in the shop/machine shop areas, including: acetylene compressed gas; oxygen compressed gas; argon/carbon dioxide compressed gas; automatic transmission fluid (220 gallons); solvent mineral spirits (55 gallons); and waste automobile transmission fluid (300 gallons). Ten 55-gallon drums of racing fuel were stored on the property in 1992. A 1,250-gallon sand oil separator was installed at this facility in 1999. All structures have been removed from this parcel, and it has consisted of undeveloped land for the past eight years. Based on the fact that no USTs were reported at this facility, the fact that the building had a concrete slab foundation, and the fact that all structures were removed from this facility in 2007, and its previous use as a transmission repair shop the Phase I ESA determined that this is not considered a recognized environmental condition (REC).

The building on APN 107-500-017 (2440 to 2456 Henderson Road) contained numerous tenants between 1980 and 2015. Tenants likely to have used and/or stored regulated quantities of hazardous materials include: ABC Printers, a tenant from 1981 to 1992; Signs & Wonders Custom Lettering and Pinstriping, a tenant from 1981 to 1985; Custom Car Clean auto detailing, a tenant in 1985; Carburetors Unlimited, a tenant from 1985 to 1989; Trim Line Car Care auto detailing, a tenant from 1988 to 2002; Superior Automotive Service, a tenant in 1992 that stored automotive oils and antifreeze in 50-gallon containers; Redding Four Wheel Drive, a tenant from 1993 to 1995; The Blueprint Shop, a tenant from 1994 to 1999 that used and stored liquefied anhydrous ammonia; D&L Auto Repair shop, a tenant from 1999 to 2009; and Augie's Enterprise Mower, a tenant from 2013 to 2015. No records were found to indicate that USTs or underground hoists and/or hydraulic lifts were located on this parcel. Based on the fact that no USTs, underground hoists, and/or hydraulic lifts were reported at this facility, and the fact that the building has a concrete slab foundation, its current and previous uses are not considered a REC as determined by the Phase I ESA.

Occupants of APNs 107-500-023, -024, and -025 (2511 Henderson Road) have included: Redding Transit Mix Inc. concrete from 1952 to 1997; Kettlewell J Rexford ready mix concrete in 1959; Don's Auto Repair from 1988 to 1997; Hard Rock Construction Inc. building contractors from 1985 to 1998; and Dan Palmer Trucking in 1989. A 1997 plot plan shows that these parcels contained a 900-square-foot residence, a 960-square-foot warehouse, a 1,500-square-foot shop area, a 900-square-foot store room, a 576-square-foot barn/shed, a small 4'x6' shed, a gas pump, and three aboveground tanks. An abandoned fuel dispensing station with a UST was located on the property in 1997. City of Redding Staff (S. Tillman, 2006 personal communication as noted in the Phase I ESA) stated that City files for the property contain a photograph from the early 1990s showing a UST on the ground surface. However, the Phase I ESA did not find any records indicating that the soil/groundwater was properly analyzed at the time of the UST removal. Review of records from the State of California Geotracker Database showed that the site was considered closed by the Shasta County Environmental Health Department, but there were no records indicating that soil/groundwater was properly analyzed to determine contamination levels, if any, at the site.

2015 and 2018 Site Reconnaissance

In 2015 the proposed project site contained a multi-tenant commercial building, old concrete building foundations, and vacant land. Tenants of the building (2442 to 2456 Henderson Road) at the time the Phase 1 ESA was prepared included: Natural Health Care (chiropractor); Pet Care Naturally (outpatient veterinary clinic and pet food store); a private dance studio; and Augie's Lawnmower Repair. Regulated quantities of hazardous materials observed on the property at that time were limited to two 55-gallon drums of used oil in Augie's Lawnmower Repair. Asbury Environmental Services reportedly removed waste oil from the property as needed during the period of operations. All of these uses have been terminated as of 2018 and the building is currently vacant. ASTs and USTs were not observed to be used, stored, or disposed of on the property. No obvious RECs were identified for the property during the Phase I ESA.

Database Reviews

One hundred and six (106) federal, State, local, tribal, and proprietary records databases were reviewed for this assessment. The proposed project site was identified under the following addresses:

- D&L Auto Repair was listed at 2456 Henderson Road from 1999 to 2009 on the EDR US Historical Automobile Station database. This facility is not identified as having had a reported release or spill of hazardous materials; this listing is therefore not considered a REC.
- C&L Transmission Incorporated was listed at 2390 Henderson Road from 1999 to 2001 on the EDR US Historical Automobile Station database. This site was also listed on the HAZNET database and the CUPA Listings database. A Hazardous Materials Business Plan was on file for this site with Shasta County. This site was identified as a small-quantity hazardous waste generator (oil/water separation sludge and unspecified oil-containing waste). No USTs or ASTs were located at this facility. This facility is not identified as having had a reported release or spill of hazardous materials; this listing is therefore not considered a REC.
- Trim Line Auto Trim Design was listed at 2450 Henderson Road from 1999 to 2002 on the EDR US Historical Automobile Station database. This facility is not identified as having had a reported release or spill of hazardous materials; this listing is therefore not considered a REC.
- Redding Transit Mix was listed at 2511 Henderson Road on the Historic UST database. One 10,000-gallon unleaded gasoline UST was located at this site. The owner was listed as J.F. Shea Company, Inc. In 1997, the Shasta County Environmental Health Department requested a workplan for the removal of a UST, associated piping, and a fuel dispenser from the property. No response to this request was received. J. F. Shea was contacted by the County on April 3, 2006, to explore the site to attempt to determine if the UST still existed on the property. ENPLAN personnel spoke with Mr. Juan Bernardino of J. F. Shea on April 20, 2006, who was not able to determine if a UST remained located on the property. The fuel dispenser was not observed on the property during the Phase I ESA. City of Redding Staff interviewed during the preparation of the Phase I ESA stated that City files for the property contain a photograph from the early 1990s showing a UST on the ground surface. However, the Phase I ESA did not find any records (from the City or Shasta County) indicating that the soil/groundwater was properly analyzed at the time of the UST removal to determine if contamination was present.

The subject property was not identified as a hazardous materials release site on any of the databases reviewed for this assessment. Institutional controls and engineering controls were not identified for the subject property. Oil and gas wells were not identified on the subject property. The search of regulatory lists for hazardous materials sites in the vicinity of the property did not identify any obvious potential off-site sources of contamination within the Phase I ESA search distance of the subject property. Based on the research conducted for this assessment, it was the conclusion of the Phase I ESA (February 2015) that only one REC was identified during the course of this assessment, which is summarized as:

- REC 1. A UST, associated piping, and fuel dispenser were formerly located on the property at the historic Redding Transit Mix facility at 2511 Henderson Road (APN 107-500-023). The UST and piping may have been removed, but no records were found to indicate that the soil/groundwater was properly analyzed at the time of removal. The Phase I ESA recommends further investigation to confirm that the UST has been removed and to obtain and analyze soil samples (and water samples, if groundwater is encountered) from the UST site.

February 2017 Phase I ESA Findings

The February 2017 Phase I ESA (refer to Appendix 15.6, PHASE I ENVIRONMENTAL SITE ASSESSMENT) addresses five onsite parcels identified as APNs 107-400-008; 107-500-023; and 107-430-033, -034, and -057. Historical research conducted for the assessment indicates that APNs 107-430-033, -034, and -057 consisted of undeveloped land from 1894 to 1969. These parcels were developed with a Gasamat gasoline service station around 1970, and identified under the address of 2380 Henderson Road. Three USTs were installed at the Gasamat station in 1970, consisting of: a 15,000-gallon regular gasoline UST; a 15,000-gallon unleaded gasoline UST; and a 4,000-gallon super unleaded gasoline UST. This facility contained a store/residence building and a canopy that covered three pump islands with nine dispenser nozzles.

The 4,000-gallon UST did not pass a tank tightness test in 1992, and a UST release report was subsequently filed with the Shasta County Department of Resource Management. Following the failed test, the contents of the 4,000-gallon UST were removed, and the UST and associated fuel lines were taken out of service. The 4,000-gallon UST was removed from the property on June 21, 1993. Four soil samples were collected from the UST excavation pit and analyzed for TPHg, BTEX, and total lead. Soils contaminated with gasoline and benzene were encountered, and were excavated into a stockpile for disposal offsite. A UST Removal letter is on file from the Shasta County Department of Resource Management dated July 27, 1993, which states that no further remediation of the excavation was required at that time.

The remaining two 15,000-gallon USTs were upgraded with a fiberglass lining and a phase I and II vapor recovery system in 1998. During the UST upgrade activities four soil samples were collected from the vicinity of the USTs at depths ranging from 13.5 to 14 feet bgs. The soil samples were all non-detect for TPHg, BTEX, and MTBE. On March 9, 2004, the two 15,000-gallon USTs were removed from the property, and soil samples were collected and analyzed from the UST excavation pit, as well as from the stockpiled soils from the UST excavation. Soil samples were analyzed for fuel oxygenates, volatile aromatics, TPHg, and total lead. No significant soil contamination was encountered in the eight soil samples analyzed. A UST Removal/Closure letter was issued by the Shasta County Department of Resource Management on April 6, 2004. No further action was required, and the case was closed. The

structures on the property were demolished in 2004 and 2005, and these three parcels have consisted of undeveloped land from 2005 to 2016.

APN 107-400-008 consisted of undeveloped land from 1894 to 1913. From 1943 to 1967 residences were located on this parcel, and were identified as 2515, 2545, 2571, and 2581 Henderson Road. A self-service laundry was operated from the residence at 2571 Henderson Road in 1959. From 1969 to 1972 one residence remained on the north end of this parcel, and the remainder of the parcel consisted of a parking lot. This parcel was used as a storage yard in 1980, and consisted of undeveloped land from 1983 to 2015. This parcel is currently being used as a storage yard for construction materials. Used tires were observed on the northeastern portion of this parcel. Although used tires are not considered a hazardous material, their disposal is regulated.

APN 107-500-023 consisted of undeveloped land from 1894 to 1913. This parcel was part of a concrete and/or gravel plant from 1943 to 1993, and was used mainly as a storage area for stockpiled materials. Buildings and/or equipment were located on and adjacent to the eastern end of this parcel during this time period. Buildings located on and adjacent to the east of this parcel were demolished in 1993 and 1998. This parcel consisted predominantly of undeveloped land, with remnants of former concrete building foundations on the eastern end from 1998 to 2016. This parcel was originally part of a larger parcel identified as APN 107-500-014. This larger parcel was identified as 2511 Henderson Road, and was occupied by: Redding Transit Mix, Inc. from 1952 to 1997; Kettlewell J. Redford ready mix concrete in 1959; Bob Blair Trucking in 1964; Hein J. H. Co. sand and gravel from 1964 to 1967; Hard Rock Construction Inc. building contractors from 1985 to 1998; Don's Auto Repair from 1988 to 1997; and Dan Palmer Trucking in 1989.

One 10,000-gallon UST was removed from 2511 Henderson Road on June 5, 2007. The UST was located to the east of the current subject property, on APN 107-500-025. Three soil samples were collected and analyzed from the UST excavation immediately following the removal of the UST. No significant TPHd, TPHg, fuel oxygenates, volatile aromatics, or lead levels were encountered in the soil samples analyzed. Groundwater was not encountered in the UST excavation. A Completion of UST Closure letter is on file with the Shasta County Department of Resource Management dated September 10, 2007. The letter confirms the completion of a site investigation and remedial action for the UST formerly located at 2511 Henderson Road. Based on the information provided in the UST Removal Report by Lawrence and Associates dated August 2007, no further action related to the UST release/removal was required.

The property currently contains a storage yard, old concrete building foundations, and undeveloped land. No regulated quantities of hazardous materials, such as ASTs, USTs, and 55-gallon drums of chemicals, were observed to be used, stored, or disposed of on the property. No obvious RECs were identified for the property during the site reconnaissance. The February 2017 Phase I ESA concluded that no further environmental investigation of the parcels appears warranted at this time.

POTENTIAL ENVIRONMENTAL HAZARDS

Based on the review of records pertaining to past development of the project site, review of City of Redding planning documents, and site evaluations by personnel trained to identify hazards and hazardous materials, the following potential hazards may be present onsite.

Asbestos Containing Materials

The concrete used in the construction of the remaining foundations and retaining walls was produced during a period of time when naturally occurring asbestos rock was commonly used in the production of concrete block and concrete batch plants.

Petroleum Contaminated Soil and Building Materials

Investigations of the site were not able to determine if petroleum contamination was present or if there were contaminated soils beneath any existing structure. According to the Geotracker database the site was previously a Leaking Underground Storage Tank (LUST) cleanup site due to the possibility of soil being contaminated by gasoline resulting from Gasamat activities. The case was closed by the RWQCB in July 1993. Additional analysis determined that the former Redding Transit Mix site had a UST present and that no documentation exists confirming the UST and associated fuel piping was removed, and no soil/groundwater analysis documentation was found to determine levels of contamination present, if any.

Former Utility Lines, Septic Systems and Construction Debris

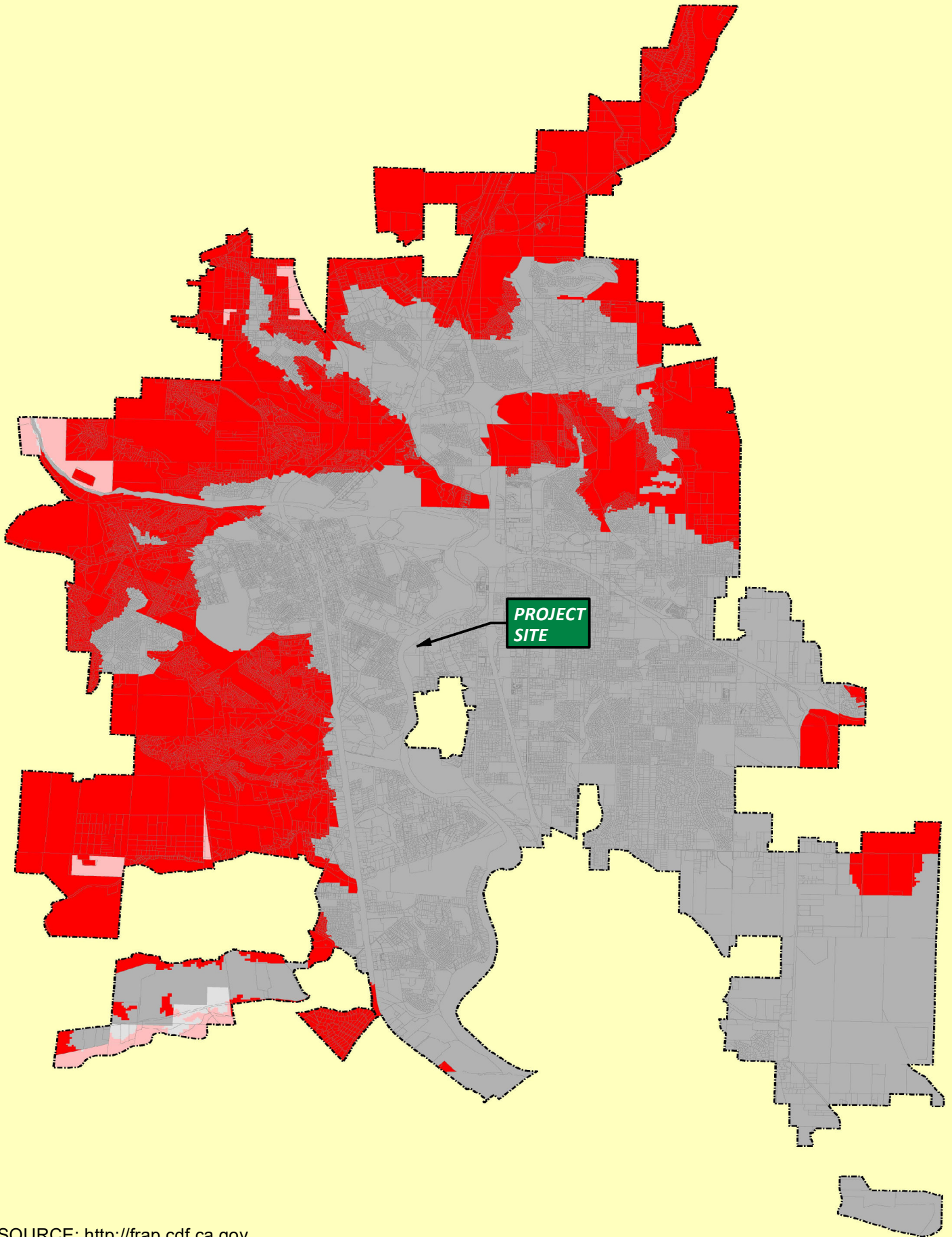
Because the site was once occupied by a former businesses that had numerous structures that have been demolished, there is a possibility that construction debris, utility lines, foundations, former ponds, and unsuitable material may exist. Below grade utility lines, septic tanks, cesspools, wells, on-site waste disposal fields and tanks, irrigation ponds and/or foundations that are encountered during construction should be removed and disposed of offsite. Buried tanks, if present, should be removed in compliance with applicable regulatory agency requirements. Existing, below-grade utility pipelines (if any) that extend beyond the limits of the proposed construction and should be plugged with lean concrete or grout to prevent migration of soil and/or water or be removed.

Former Groundwater Well

The former groundwater well that was found onsite was abandoned per City and County standards. The Record of Completion is part of the County public record.

Wildland Fuels

The project site does not have a wildland fire hazard potential. The site has been disturbed in the past with virtually all vegetation removed and the site cleared and graded for numerous former building sites and land uses. Adjacent land to the north, west and south have been developed with various structures, roads and parking lots. Areas immediately adjacent to the west have riparian vegetation common along the Sacramento River, and while there is a possibility that vegetation could contribute to wildfire in the immediate vicinity, it is unlikely that the vegetation would contribute to a wildland fire hazard that exceeds the levels currently identified by State and local fire agencies. In addition, the proposed project site is not located within the City's Very High Fire Hazard Severity Zone (refer to Figure 5.7-2, VERY HIGH FIRE SEVERITY ZONE). Also, refer to Section 5.12, PUBLIC SERVICES, for a discussion of the RFD related to the provision of available fire services to the proposed project.



SOURCE: <http://frap.cdf.ca.gov>



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Very High Fire Severity Zone

Figure 5.7-2

5.7.3 FUTURE ONSITE HAZARDOUS MATERIAL USE

TYPICAL MATERIALS USED AT MEDICAL FACILITIES

Hazardous Materials

Hazardous materials, including such materials as acids, bases, flammable liquids, organic and inorganic reagents, stains and dyes, and compressed gases, are routinely used at hospitals. The quantities and types of materials used at any particular time, however, change sporadically due to the nature of patient care. Therefore, providing a detailed inventory of every hazardous material that could be used at the project is impractical, but examples of the more common substances include acids, acetone, alcohol, ammonium compounds, cesium compounds, chloroform, formaldehyde, hydrogen peroxide, lead compounds, magnesium compounds, mercury compounds, potassium compounds, silver compounds, sodium compounds, and zinc compounds; compressed gases commonly used at hospitals include acetylene, argon, carbon dioxide, helium, nitrogen, nitrous oxide, and oxygen.¹

Sterilization System

Medical supplies, such as medical instruments, equipment, and surgical linens, are sterilized in a special steam system that uses a strong hydrogen peroxide solution considered to be hazardous to respiratory functions, skin, and eyes. However, the solution's use (in combination with steam) does not require any special handling or disposal techniques because the byproducts of the process are nonhazardous (carbon dioxide and water).²

Laboratories and Pathology

If diagnostic laboratory functions are included by on-campus laboratories, these procedures would involve the use of small quantities of chemicals. Aqueous solutions containing formaldehyde are used extensively in pathology as a preservative. Potential health effects associated with exposure to formaldehyde include skin, eye, and respiratory irritation; it is also regulated as a carcinogen, and therefore its use and disposal are strictly controlled by the State in the California Code of Regulations (CCR) Title 8, Article 110 (Carcinogens), Section 5217.³

Biohazardous Materials and Medical Waste⁴

Biohazardous and medical waste would be separated from other waste at the point of generation. Biohazardous materials include (1) materials containing certain infectious agents (microorganisms, bacteria, molds, parasites, viruses) that normally cause or significantly contribute to increased human mortality, or (2) organisms capable of being communicated by invading and multiplying in body tissues. Regulated medical wastes, including biohazardous wastes and sharps, would be sent offsite and treated by a hauler licensed by the California Department of Public Health (CDPH). Section 118029 of the Health and Safety Code requires all medical waste transporters doing business in California to report

¹ City of Elk Grove. 2013. *Dignity Health Elk Grove Medical Campus Draft Subsequent Environmental Impact Report (SCH No. 2012082029)*. Page 3.4-2. January 2013.

² Ibid. Page 3.4-3.

³ Ibid.

⁴ Ibid.

information regarding business ownership, location, vehicles, and clients to CDPH's Medical Waste Management Program (MWMP). Only medical waste transporters listed with CDPH are allowed to transport medical waste. Other medical waste could be treated onsite by autoclave until rendered noninfectious.

Radioactive Materials and Chemotherapeutic Waste⁵

Radioactive materials and chemotherapeutic materials could be used at the proposed facility. Sources of radiation (ranging from X-rays to radioactive iodine used in patient treatment) are regulated during use and disposal. Although radiation has beneficial uses in health care, prolonged exposure to radiation can cause radiation sickness (with symptoms such as nausea and hair loss) and even death.

Use of these materials also generates radioactive and/or chemotherapeutic wastes. The project would be required to handle, store, and dispose of radioactive waste in accordance with federal and State regulations. Disposal of radioactive waste occurs either through regular trash or sewer (once it has reached environmentally safe levels of radioactivity) or it is removed from the site and buried by a licensed contractor. Federal and State regulations govern which type of disposal method is used for specific radioactive materials, and these regulations also mandate specific record-keeping requirements documenting the types and amounts of radioactive materials disposed.

Chemotherapeutic wastes are byproducts of storage, handling, and preparation of chemotherapeutic agents (agents that kill or prevent the reproduction of malignant cells). The facility would provide a separate secure storage area for chemotherapeutic waste, where it would be stored onsite until transported by a hauler licensed by the CDPH to an offsite facility for treatment and disposal.

Above Ground Storage Tanks

The proposed project would include the use of up to three 500 gallon aboveground storage tanks, such as that used for the storage of diesel fuel and liquid oxygen. Tank design, installation, and operation would be subject to review by the Redding Fire Department to ensure compliance with applicable Uniform Fire Code requirements.

5.7.4 REGULATORY SETTING

Hazardous materials refer generally to hazardous substances, hazardous waste, and other materials that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (household cleaners, industrial solvents, paint, pesticides, etc.) and in the manufacturing of products (electronics, newspapers, plastic products, etc.). Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials have a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

⁵ Ibid.

The term “hazardous materials” as used in this section includes all materials defined in the California Health and Safety Code Section 25501(n): *“A material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. ‘Hazardous materials’ include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the unified program agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.”*

The term includes chemicals regulated by the United States Department of Transportation (USDOT), the United States Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), the California Governor’s Office of Emergency Services (OES), and other agencies as hazardous materials, wastes, or substances. “Hazardous waste” is any hazardous material that has been discarded, except materials specifically excluded by regulation. Hazardous materials that have been intentionally disposed of or inadvertently released fall within the definition of “discarded” materials and can result in the creation of hazardous waste. Hazardous wastes are broadly characterized by their ignitability, toxicity, corrosivity, reactivity, radioactivity, or bioactivity. Federal and State hazardous waste definitions are similar, but distinct enough that the federal Resource Conservation and Recovery Act (RCRA) hazardous wastes and State non-RCRA hazardous wastes have separate classifications. Hazardous wastes require special handling and disposal because of their potential to impact public health and the environment. Some materials are designated “acutely” or “extremely” hazardous under relevant statutes and regulations.

Hazardous materials and wastes can pose a significant actual or potential hazard to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Many federal, State, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste are in place to prevent these unwanted consequences. These regulatory programs are designed to reduce the danger that hazardous substances may pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters.

Potential hazards and the use and transportation of hazardous substances are regulated by an overlapping set of adopted city, county, State, and federal plans, policies, and regulations. In general, federal and State legislation empowers regulation by local agencies; however, both State and federal agencies such as the Federal Aviation Administration (FAA) and Regional Water Quality Control Boards (RWQCBs) retain a substantial direct regulatory role. The City addresses these issues primarily in its municipal code and to a lesser extent in its *General Plan*. Hazardous materials are also regulated by the City of Redding Fire Department, the Shasta County Environmental Health Division (SCEHD), and the Shasta County Air Quality Management District (SCAQMD).

FEDERAL

United States Department of Transportation

The U.S. Department of Transportation (DOT), in conjunction with United States Environmental Protection Agency (EPA), is responsible for enforcement and implementation of federal laws and regulations pertaining to the transportation of hazardous materials. The Hazardous Materials Transportation Act of 1974 (49 USC 5101 et seq.) directs DOT to establish criteria and regulations regarding safe storage and transportation of hazardous materials. Hazardous materials regulations are

contained in 49 CFR 171–180 and address transportation of hazardous materials, types of materials defined as hazardous, and the marking of vehicles transporting hazardous materials. In particular, 49 CFR 173, titled “Shippers’ General Requirements for Shipments and Packagings,” defines hazardous materials for transportation purposes. A portion of the code (49 CFR 173.3) provides specific packaging requirements for shipment of hazardous materials. 49 CFR 173.21 lists categories of materials and packages that are forbidden for shipping. 49 CFR 177, titled “Carriage by Public Highway,” defines unacceptable hazardous materials shipments.

United States Environmental Protection Agency

The EPA is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes responsibility for permits, monitoring, and enforcing compliance. The management of hazardous materials and waste within the State of California is under the jurisdiction of the California Environmental Protection Agency (Cal EPA) and the California Department of Toxic Substances Control (DTSC). The Cal EPA was created by the State of California to establish a cabinet level voice for the protection of human health and the environment, as well as assure the coordinated deployment of State resources. The DTSC regulates hazardous waste produced in the State. Additionally, the State Water Quality Control Board (SWQCB) regulates the quality of water within the State, including contamination of State waters as a result of hazardous materials and/or waste. As of August 1, 1992, the DTSC was authorized to implement the State’s hazardous waste management program for the EPA. The EPA continues to regulate hazardous substances under the Comprehensive Response Compensation and Liability Act (CERCLA). Local departments such as fire departments and environmental health services departments may also have jurisdiction over hazardous materials; refer to Table 5.7-1, SUMMARY OF HAZARDOUS MATERIALS REGULATORY AUTHORITY.

**Table 5.7-1
SUMMARY OF HAZARDOUS MATERIALS REGULATORY AUTHORITY**

Regulatory Agency	Authority
Federal Agencies	
United State Department of Transportation (DOT)	Hazardous Materials Transport Act - Code of Federal Regulations (CFR) 49
Environmental Protection Agency (EPA)	Federal Water Pollution Control Act Clean Air Act Resource Conservation and Recovery Act (RCRA) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Superfund Amendments and Reauthorization Act (SARA) Federal Insecticide, Fungicide and Rodenticide Act
Occupational Safety and Health Administration (OSHA)	Occupational Safety and Health Act and CFR 29
State Agencies	
Department of Toxic Substances Control (DTSC)	California Code of Regulations
Department of Industrial Relations (CAL-OSHA)	California Occupational and Safety Health Act, CCR Title 8
State Water Resources Control Board (SWRCB) and Central Valley Regional Water Quality Control Board (RWQCB)	Porter-Cologne Water Quality Act Underground Storage Tank Law
Health and Welfare Agency	State Drinking Water and Toxic Enforcement Act
Air Resources Board and Air Pollution Control District	Air Resources Act
Office of Emergency Services (OES)	Hazardous Materials Release Response Plans/Inventory Law
Department of Food and Agriculture	Food and Agriculture Code
State Fire Marshall	Uniform Fire Code, CR Title 19
Local Agencies	
City of Redding	Local Hazard Mitigation Plan
Shasta County Environmental Health Division	Local Enforcement Agency
Source: SHN Consulting. 2018.	

Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) oversees the administration of the Occupational Safety and Health Act, which requires specific training for hazardous materials handlers, provision of information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets from materials manufacturers. The material safety data sheets describe the risks associated with the materials and proper handling and procedures for the hazardous materials. Employee training must include response and remediation procedures for hazardous materials releases and exposures.

OSHA's Bloodborne Pathogens Standard is intended to protect workers from the exposure of blood and bodily fluids, which is the primary means of transmittal for the most harmful infectious agents known. The Bloodborne Pathogens Standard, enforced by the California Division of Occupational Safety and Health (Cal/OSHA), ensures that infectious materials, such as patient laboratory samples, are handled, stored, and transported in a manner that prevents worker, community, and environmental exposure.

The Hazard Communication Standard (Title 29, Part 1910 of the Code of Federal Regulations [CFR]) requires that workers be informed of the hazards associated with the materials they handle. Workers must be trained in safe handling of hazardous materials, use of emergency response equipment, and the building emergency response plan and procedures. Containers must be appropriately labeled, and Material Safety Data Sheets must also be available in the workplace.

Toxic Substances Control Act

Established in 1976 and amended on December 31, 2002, the Toxic Substances Control Act (TSCA) (15 United States Code [USC] Title 15, Sections 2601–2692) grants the EPA power to require proper reporting, record-keeping, and testing requirements related to chemical substances and/or mixtures. Specifically, the TSCA addresses the production, importation, use, and disposal of specific chemicals, including PCBs, asbestos, radon, and LBPs. The TSCA establishes the EPA's authority to require the notification of the use of chemicals, require testing, maintain a TSCA inventory, and require those importing chemicals under Sections 12(b) and 13 to comply with certification and/or other reporting requirements. This federal legislation also phased out the use of asbestos-containing materials in new building materials and set requirements for the use, handling, and disposal of asbestos-containing materials. Disposal standards for lead-based paint wastes are also detailed in the TSCA.

The Emergency Planning and Community Right-To-Know Act

The Emergency Planning and Community Right-To-Know Act (also known as Title III of the Federal Superfund Amendments and Reauthorization Act, or "SARA III") (42 USC section 11001 et seq.) was established by the EPA to allow for emergency planning at the state and local level regarding chemical emergencies, to provide notification of emergency release of chemicals, and to address the community's right to know about hazardous and toxic chemicals in their area. SARA III was designed to increase community access and knowledge about chemical hazards as well as facilitate the creation and implementation of State/tribal emergency response commissions responsible for coordinating certain emergency response activities and appointing local emergency planning committees. Section 1910.1200(c) Title 29 of the CFR defines "chemicals or hazardous materials" for the purposes of SARA III.

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 USC section 136 et seq.) was originally passed in 1947. It has been amended several times, most extensively in 1972 and most recently by the Food Quality Protection Act of 1996. The purpose of FIFRA is to establish federal jurisdiction over the distribution, sale, and use of pesticides. It also gives the EPA the authority to study the effects of pesticide use. Other key provisions of FIFRA require pesticide applicators to pass a licensing examination for status as “qualified applicators,” create a review and registration process for new pesticide products, and ensure thorough and understandable labeling that includes instructions for use.

Hazardous Materials Transportation Act—Safe Transport of Hazardous Materials

The USDOT regulates hazardous materials transportation between states under 49 CFR Chapter 1, Parts 100-185. In California, the California Department of Transportation (Caltrans) and the California Highway Patrol enforce federal law related to the transport of hazardous materials. Together, these agencies determine driver training requirements, load labeling procedures, and specifications for container types.

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and nonhazardous wastes. The legislation mandates that hazardous wastes be tracked from the point of generation to ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The act was intended to be comprehensive in encompassing both the prevention of and response to uncontrolled hazardous substances releases. The act deals with environmental response, providing mechanisms for reacting to emergencies and chronic hazardous material releases. In addition to procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

STATE

California Health and Safety Code and Code of Regulations

California Health and Safety Code Chapter 6.95 and California Code of Regulations, Title 19, Section 2729, set out the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled onsite. A business that uses hazardous materials or a mixture containing hazardous materials must establish and implement a business plan if the hazardous material is handled in certain quantities.

California Environmental Protection Agency

One of the primary agencies that regulate hazardous materials is the CalEPA. The state, through CalEPA, is authorized by the EPA to enforce and implement certain federal hazardous materials laws and regulations. The California DTSC, a department of the CalEPA, protects California and Californians from exposure to hazardous waste, primarily under the authority of the RCRA and the California Health and Safety Code. The DTSC requirements include the need for written programs and response plans, such as Hazardous Materials Business Plans. DTSC programs include dealing with cleanups of improper hazardous waste management; evaluation of samples taken from sites; enforcement of regulations regarding use, storage, and disposal of hazardous materials; and encouragement of pollution prevention.

California Division of Occupational Safety and Health

Like OSHA at the federal level, the California Division of Occupational Safety and Health (Cal/OSHA) is the responsible State-level agency for ensuring workplace safety. Cal/OSHA assumes primary responsibility for the adoption and enforcement of standards regarding workplace safety and safety practices. In the event that a site is contaminated, a site safety plan must be crafted and implemented to protect the safety of workers. Site safety plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from contaminated sites or buildings.

The Bloodborne Pathogens Standard, enforced at the state level by the Division of Occupational Safety and Health (Cal/OSHA), requires worker safety training to minimize releases and exposures to potential hazards. The standard also requires employees to follow universal precautions, which call for the handling of all human blood and body fluids as if they contain infectious agents.

The Medical Waste Management Program enforces the California Medical Waste Management Act and related regulations. Medical waste is generally regulated in the same manner as hazardous waste, except that special provisions apply to storage, disinfection, containment, and transportation. The law imposes on all hospital facilities a cradle-to-grave tracking system and a calibration and monitoring system for onsite treatment. Facilities must obtain permits to treat medical wastes and are subject to annual audits.

The Medical Waste Management Act requires that all hospitals develop and implement a medical waste management plan. The purpose of the plan is to successfully guide the proper handling of medical waste throughout the facility, including storage, transport, and disposal.

California Building Code

The State of California provided a minimum standard for building design through the California Building Code (CBC), which is in Part 2 of Title 24 of the California Code of Regulations. Commercial buildings are plan-checked by the City for compliance with the CBC. Typical fire safety requirements of the CBC included; the installation of sprinklers, establishment of fire resistance standards for fire doors, certain building materials, and particular types of construction, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire threat potential throughout California. CAL FIRE ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat, moderate, high, and very high fire threat. CAL FIRE produced the 2010 Strategic Fire Plan for California, with goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments.

California Fire Code

The California Fire Code (CFC) is Part 9 of the California Building Standards Code (California Code of Regulations, Title 24). Updated every 3 years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Similar to the CBC, the CFC is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions.

California Department of Transportation and California Highway Patrol

Two State agencies have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies: the California Department of Transportation (Caltrans) and the California Highway Patrol (CHP). Caltrans manages more than 50,000 miles of California's highway and freeway lanes, provides intercity rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases on highway and freeway lanes and intercity rail services.

The CHP enforces hazardous materials and hazardous waste labeling and packing regulations designed to prevent leakage and spills in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the CHP's responsibility, and it conducts regular inspections of licensed transporters to ensure regulatory compliance.

In addition, the State of California regulates the transportation of hazardous waste originating or passing through the state. Common carriers are licensed by the CHP pursuant to the California Vehicle Code, Section 32000. This section requires licensing for every motor (common) carrier who transports, for a fee, in excess of 500 pounds of hazardous materials at one time and every carrier, if not for hire, who carries more than 1,000 pounds of hazardous material of the type requiring placards. Common carriers conduct a large portion of the business in the delivery of hazardous materials.

FEDERAL AND STATE HAZARDOUS MATERIALS – SPECIFIC PROGRAMS AND REGULATIONS

Asbestos-Containing Materials Regulations

Asbestos is a naturally occurring fibrous mineral that has been mined for its useful thermal properties and tensile strength. Asbestos-containing materials (ACM) are generally defined as either friable or nonfriable. Any material containing more than 1 percent asbestos is considered friable ACM; it is more likely to produce airborne fibers than nonfriable ACM and can be crumpled, pulverized, or reduced to

powder by hand pressure. Nonfriable ACM contains 1 percent or less asbestos and it cannot be crumpled, pulverized, or reduced to powder by hand pressure. When left intact and undisturbed, ACM does not pose a health risk to building occupants. Potential for human exposure occurs when ACM becomes damaged and fibers become airborne and are inhaled. Inhalation of asbestos fibers can lead to various health problems, some extremely serious.

State-level agencies, in conjunction with the EPA and OSHA, regulate removal, abatement, and transport procedures for ACMs. Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations, and medical evaluation and monitoring are required for employees performing activities that could expose them to asbestos. The regulations include warnings that must be heeded and practices that must be followed to reduce the risk for asbestos emissions and exposure. Finally, federal, state, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

Lead-Based Paint

Lead-based paint (LBP), which can result in lead poisoning when consumed or inhaled, was widely used in the past to coat and decorate buildings. Lead poisoning can cause anemia and damage to the brain and nervous system, particularly in children. Like ACM, LBP generally does not pose a health risk to building occupants when left undisturbed; however, deterioration, damage, or disturbance will result in hazardous exposure. In 1978, the use of LBP was federally banned by the Consumer Product Safety Commission. Therefore, buildings built before 1978 are presumed to contain LBP, as are buildings built shortly thereafter during the gradual phase-out of LBP.

Cal/OSHA's Lead in Construction Standard is in Title 8, Section 1532.1 of the California Code of Regulations. The regulations address all of the following areas: permissible exposure limits; exposure assessment; compliance methods; respiratory protection; protective clothing and equipment; housekeeping; medical surveillance; medical removal protection; employee information, training, and certification; signage; record keeping; monitoring; and agency notification.

Polychlorinated Biphenyls

The EPA prohibited the use of polychlorinated biphenyls (PCBs) in the majority of new electrical equipment starting in 1979 and initiated a phase-out for much of the existing PCB-containing equipment.

REGIONAL AGENCIES

Central Valley Regional Water Quality Control Board

The Porter-Cologne Water Quality Act established the State Water Resources Control Board and divided the state into nine regional basins, each under the jurisdiction of an RWQCB. The Central Valley RWQCB (Region 5) regulates water quality in the project area and has the authority to require groundwater investigations when the quality of groundwater or surface waters of the state is threatened, and to require remediation actions, if necessary. The Central Valley Region is divided into three basins—from north to south, the Sacramento River Basin, San Joaquin River Basin, and Tulare Lake Basin. The project site is in the Sacramento River Basin.

Shasta County Environmental Health Division

The SCEHD is part of the Shasta County Department of Resource Management and is the local Certified Unified Program Agency (CUPA). A local CUPA is responsible for administering/overseeing compliance with the following programs, as required by State and federal regulations:

- Hazardous Materials Release Response Plans and Inventories (Area Plans)
- California Accidental Release Prevention (CalARP) Program
- Underground Storage Tank Program (UST)
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control and Countermeasures (SPCC) Plans (AST)
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs
- Hazardous Material Management Plans and Hazardous Material Inventory Statements

Facilities that store, use, or handle hazardous materials above reportable amounts are required to prepare and file a Hazardous Materials Business Plan for the safe storage and use of chemicals. In the event of an emergency, firefighters, health officials, planners, public safety officers, health care providers, and others rely on the business plan. Implementation of the business plan should prevent or reduce damage to the health and safety of people and the environment when a hazardous material is released.

A business plan must be submitted by businesses that handle a hazardous material, or a mixture containing a hazardous material, in quantities equal to or greater than:

- 500 pounds of a solid
- 55 gallons of a liquid
- 200 cubic feet of compressed gas at standard temperature and pressure
- The federal threshold planning quantity for extremely hazardous substances
- Radioactive materials in quantities for which an Emergency Plan is required as per Parts 30, 40, or 70, Chapter 1 of Title 10 of the Code of Federal Regulations

The business plan must include (1) the type and quantity of hazardous materials, (2) site map, (3) risks of using these materials, (4) spill prevention, (5) emergency response, (6) employee training, and (7) emergency contacts. Businesses, such as photographic, chrome plating or service stations that generate small amount of hazardous waste or require underground storage of hazardous materials, require a permit from the department.

LOCAL

City of Redding General Plan

The City of Redding *2000 – 2020 General Plan*, serves as the overall guiding policy document for land use, development, and environmental quality in the City. The *General Plan* provides goals, policies, and implementation measures in order to reduce impacts of projects pertaining to hazardous materials and emergency response. Applicable goals and policies relative to the proposed project site are listed in Table 5.7-2, CONSISTENCY WITH APPLICABLE CITY OF REDDING GENERAL PLAN GOALS AND POLICIES FOR HAZARDOUS MATERIALS AND EMERGENCY RESPONSE, followed by a brief explanation of how the proposed project complies with the goals and policies.

Table 5.7-2
CONSISTENCY WITH APPLICABLE CITY OF REDDING GENERAL PLAN
GOALS AND POLICIES FOR HAZARDOUS MATERIALS AND EMERGENCY RESPONSE

General Plan Goals and Policies	Consistency Analysis
GENERAL PLAN GOAL HS4 MINIMIZE THE POTENTIAL FOR LOSS OF LIFE, INJURY, AND PROPERTY DAMAGE RESULTING FROM URBAN AND WILDLAND FIRES.	
Policy HS4B: Require that all new development and redevelopment meet State and local standards for fire protection; encourage the upgrade of existing structures to current standards.	Consistent. The proposed project is subject to current California Building Code for building materials and fire protection equipment.
Policy HS4E: Utilize appropriate techniques, such as those illustrated in Figure 4-8 [of the Health and Safety Element], to reduce fire damage in those areas with a high wildland fire potential. The actual combination of these and/or other techniques required for a particular project will be determined by the Fire Marshal based on the level of hazard involved.	Consistent. The proposed project's building construction and site development does not fall in an area with a high wildland fire potential.
Policy HS4F: Construct emergency-vehicle access routes to open-space areas at optimal locations within developments.	Consistent. The proposed project would be fully accessible to emergency vehicles through design of parking and vehicle drive aisles. There are no designated open spaces that would require additional access.
Policy HS4J: Generally require each residential development having 50 or more dwelling units and each commercial development employing 150 or more people to have at least two connected points of access as may be determined necessary by the Fire Marshal.	Consistent. The proposed project proposes three public access points. Two access points are proposed to be Henderson Road (North), and one full-access southern driveway to Henderson Road/ Parkview Avenue.
GENERAL PLAN GOAL HS9 REDUCE THE RISK OF PERSONAL INJURY, PROPERTY DAMAGE, AND ENVIRONMENTAL DEGRADATION RESULTING FROM THE USE, TRANSPORT, DISPOSAL, AND RELEASE/DISCHARGE OF HAZARDOUS MATERIALS.	
Policy HS9A: Require new developments that produce, store, utilize, or dispose of significant amounts of hazardous materials or waste to incorporate appropriate state-of-the-art project designs and building materials to protect employees and adjacent land uses.	Consistent. Long-term project operation would involve the use and storage of hazardous materials, including common cleaning products, building maintenance products, paints and solvents, and similar items. Routinely used hazardous materials, however, would not be of the type or in sufficient quantities to pose a significant hazard to public health and safety or to the environment. The use, storage, and transportation of hazardous materials are subject to stringent local, State, and federal regulations, the intent of which is to minimize the public's risk of exposure. Based on the uses that would be part of the proposed project and the existing regulatory structure that controls the transport, use, storage, and disposal of hazardous materials, hazardous materials would not be transported, used, stored, or disposed of such that the proposed project would cause a threat to public safety, either during construction or operation of the project.
Policy HS9C: Require that soils containing toxic or hazardous substances be remediated to the satisfaction of the agency having jurisdiction prior to the granting of any permits for new development.	Consistent. Potential environmental hazards that may be onsite from historic uses of petroleum products, the presence of asbestos containing materials (ACM) in historic building products, and other underground infrastructure related to historic uses at the site may be present. Quantities of these materials are likely to be small, but could pose a health risk to workers during demolition and clearing of the site if encountered. The project applicant will be required to conduct pre-construction sampling and analysis, and if necessary, hazard mitigation measures that include sampling, remediation, and closure if hazardous materials are encountered.
Source: City of Redding. 2000 - 2020 General Plan. October 2000.	

City of Redding Municipal Code

Redding Municipal Code (RMC) §18.40.110.D requires that “the use, handling, storage and transportation of hazardous and extremely *hazardous materials* shall comply with the provisions of the California Hazardous Materials Regulations, the California Fire and Building Codes, and any other applicable laws.”

City of Redding Local Hazard Mitigation Plan

The City of Redding *Local Hazard Mitigation Plan's* purpose is to fulfill the federal Disaster Mitigation Act of 2000 (DMA) requirement. The Plan provides a list of mitigation activities that may assist the City in reducing risk and preventing loss from future hazard events. The actions address hazards, as well as specific activities for, wildland fire, flood, hazardous material, severe winter weather, earthquakes, utility disruption, aviation disaster, chemical, biological, radiological, nuclear, explosives, dam overflow or failure, and volcanic issues.

The RFD provides emergency responses to hazardous materials incidents in the City. All RFD personnel are trained, at minimum, to the level of Hazardous Materials First Responder, which allows them to take defensive action at hazmat incidents. Additional personnel are trained to the higher levels of Hazardous Materials Technician and Hazardous Materials Specialist.⁶ Individuals trained to these levels can implement offensive control measures at hazmat incidents.

5.7.5 STANDARDS OF SIGNIFICANCE

SIGNIFICANCE CRITERIA

In accordance with State *CEQA Guidelines*, the effects of a project are evaluated to determine whether they would result in a significant adverse impact on the environment. An EIR is required to focus on these effects and offer mitigation measures to reduce or avoid any significant impacts that are identified. The criteria used to determine the significance of impacts may vary depending on the nature of the project. The following significance thresholds related to hazards and hazardous materials have been derived from Appendix G of the State *CEQA Guidelines*:

- *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.* Refer to Impact 5.7-1, below.
- *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.* Refer to Impact 5.7-2, below.
- *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.* Refer to AREAS OF NO PROJECT IMPACT, below.

⁶ City of Redding. 2015. *Local Hazard Mitigation Plan*. November 2015.

- *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 6596.5 and, as a result, would create a significant hazard to the public or the environment. Refer to AREAS OF NO PROJECT IMPACT, below.*
- *For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the project would result in a safety hazard for people residing or working in the project area. Refer to AREAS OF NO PROJECT IMPACT, below.*
- *For a project within the vicinity of a private airstrip, the project would result in a safety hazard for people residing or working in the project area. Refer to AREAS OF NO PROJECT IMPACT, below.*
- *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Refer to Impact 5.7-3, below.*
- *Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas, or where residences are intermixed with wildlands. Refer to Impact 5.7-4, below.*

Based on these standards, the effects of the proposed project have been categorized as either a less than significant impact or a potentially significant impact. Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

AREAS OF NO PROJECT IMPACT

In June 2018, the City conducted an Initial Study to determine significant effects of the proposed project. In the course of this evaluation, certain impacts of the proposed project were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type. The effects determined not to be significant are not required to be included in primary analysis sections of the Draft EIR. As such, the following impacts either are not applicable to the proposed project or are not reasonably foreseeable and are not addressed further within this section (refer to Section 10.0, EFFECTS FOUND NOT TO BE SIGNIFICANT):

- *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.*
- *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 6596.5 and, as a result, would create a significant hazard to the public or the environment.*
- *For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the project would result in a safety hazard for people residing or working in the project area.*

- For a project within the vicinity of a private airstrip, the project would result in a safety hazard for people residing or working in the project area.

5.7.6 POTENTIAL IMPACTS AND MITIGATION MEASURES

METHODOLOGY

Exposure pathways are the means by which hazardous substances move through the environment from a source to exposure with people. A complete exposure pathway must have four parts: (1) a source of contamination; (2) a mechanism for transport of the substance from the source to the air, surface water, groundwater, or soil; (3) a point where people come in contact with contaminated air, surface water, groundwater, or soil; and (4) a route of entry into the body. As discussed in Subsection 5.7.4, *Regulatory Setting*, above, the transport, use, storage, and disposal of hazardous materials is governed by a substantial body of existing regulations. These regulations are intended to reduce the potential for exposure by controlling the pathways by which persons could be exposed to hazardous substances to ensure that effects are less than significant. Compliance with these regulations is required, not optional.

The qualitative analysis of the potential public safety and hazards impacts identified is based on review of intended uses to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the proposed project would comply with all applicable laws, ordinances, and regulations (summarized above). Hazards and hazardous material impacts are analyzed below according to topic. Mitigation measures directly correspond with an identified impact.

IMPACT 5-7-1	<i>The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.</i>
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Significance: Less Than Significant Impact.

Impact Analysis: The proposed project site is vacant, and there is no use, storage, or disposal of hazardous materials onsite.

Short-Term Construction

Construction of the proposed project would involve the use of various products that could contain materials classified as hazardous (e.g., solvents, adhesives and cements, certain paints, cleaning agents and degreasers). Construction of the proposed project would be required to comply with applicable building, health, fire, and safety codes. Hazardous materials would be used in varying amounts during construction and occupancy of the proposed project. Construction and maintenance activities would use hazardous materials such as fuels (gasoline and diesel), oils and lubricants, paints and paint thinners, glues, cleaners (which could include solvents and corrosives in addition to soaps and detergents), and possibly pesticides and herbicides. Compliance with applicable federal, State, and local regulations including, but not limited to, Titles 8 and 22 of the California Code of Regulations (CCR), the Uniform Fire Code, and Chapter 6.95 of the California Health and Safety Code would ensure that the proposed project

would not create a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous materials.

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 California Health and Safety Code, were established at the state level to ensure compliance with federal regulations to reduce the risk to 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., Cal/OSHA in the workplace or DTSC for hazardous waste) and/or local jurisdictions.

Long-Term Operation

Transportation of Hazardous Materials. As stated above, operation of the proposed project would involve the use of hazardous materials. To minimize the potential for accidental spills of hazardous materials during transit to and from the project site, suppliers and transporters are required to follow US DOT, CHP, and USPS regulations for packaging and handling hazardous materials. Transport of hazardous materials, however, would be subject to existing federal, State, and local regulations:

- DOT Hazardous Materials Transport Act, CFR, Title 49
- EPA Resource Conservation and Recovery Act (RCRA)
- EPA Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
- Toxic Substance Control Act
- CAL/OSHA
- California Health and Safety Code (Chapters 6.95 and 19)
- California Code of Regulations (Section 2729)
- City of Redding *General Plan*
- RMC §18.40.110.D

For all personnel that handle hazardous waste, OSHA regulations mandate an initial 40-hour training course and subsequent annual training review. In case of an accidental spill during project operation, the project would be required to comply with State and regional cleanup standards. Compliance with these regulations would serve to protect human health and environment. Impacts would be *less than significant*.

Onsite Use and Storage of Hazardous Materials. Long-term project operation would involve the use and storage of hazardous materials, including common cleaning products, building maintenance products, paints and solvents, and similar items. Routinely used hazardous materials, however, would not be of the type or in sufficient quantities to pose a significant hazard to public health and safety or to the environment.

In addition, the proposed project may utilize and store materials previously described above under Subsection 5.7.3, *Future Onsite Hazardous Material Use*. Examples include acids, acetone, alcohol, ammonium compounds, cesium compounds, chloroform, formaldehyde, hydrogen peroxide, lead compounds, magnesium compounds, mercury compounds, potassium compounds, silver compounds, sodium compounds, and zinc compounds; compressed gases commonly used at hospitals include acetylene, argon, carbon dioxide, helium, nitrogen, nitrous oxide, and oxygen. Other controlled

substances, including but not limited to formaldehyde, biohazardous waste, medical waste, radioactive materials (X-rays) and chemotherapeutic wastes could also be used and stored onsite.

The proposed facility would comply with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards. Although compliance with JCAHO standards is voluntary, because the Center for Medicare and Medicaid Services and many third-party payers require hospitals to be accredited as a condition of participation in health insurance reimbursement programs, this accreditation would allow the facility to serve the City of Redding. The JCAHO standards include an entire chapter entitled “Managing the Environment of Care” (EOC). The EOC standards include seven required programs: Safety, Security, Hazardous Materials and Waste, Emergency Management (hospital and community disasters), Fire Life Safety, Medical Equipment Management, and Utilities Management.

As an accredited facility, the proposed project would be surveyed every three years by JCAHO and the Department of Health Services (Licensing & Certification) to attain compliance with JCAHO standards and California Code of Regulations Title 22 (Hospital Licensing and Certification) regulations. The new facilities created by the project would also be required to comply with existing laws and regulations.

The proposed project would also include three backup emergency generators that would require diesel fuel and oxygen tanks could also be included for use in the facility. Each generator location would require a minimum 500 gallon diesel above ground storage tank co-located with the generator. If required, oxygen would be contained in pressurized tanks with leak control devices and would be surrounded by a concrete wall. Tank design, installation, and operation would be subject to review by the Redding Fire Department to ensure compliance with applicable Uniform Fire Code requirements. Workplace regulations addressing hazardous materials in Title 8 of the CCR would apply to the project site. Compliance with these regulations would be monitored by the Redding Fire Department when they perform inspections for flammable and hazardous materials storage. Other mechanisms in place to enforce the Title 8 regulations include compliance audits and reporting to local and state agencies. Implementation of the workplace regulations would further reduce the potential for hazardous materials releases.

The use, storage, and transportation of hazardous materials are subject to stringent local, State, and federal regulations, the intent of which is to minimize the public’s risk of exposure. Based on the uses that would be part of the proposed project and the existing regulatory structure that controls the transport, use, storage, and disposal of hazardous materials, hazardous materials would not be transported, used, stored, or disposed of such that the proposed project would cause a threat to public safety, either during construction or operation of the project. Therefore, the risk that the proposed project would cause an accidental release of hazardous materials that could create a public or environmental health hazard is unlikely. Impacts in this regard are considered *less than significant*.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: No mitigation measures are required. Impacts would be *less than significant*.

IMPACT 5.7-2	<i>Project construction activities could create a significant hazard to the public through foreseeable upset and accidental conditions.</i>
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Significance: Potentially Significant Impact.

Impact Analysis: Project construction activities could potentially result in a release of hazardous materials into the environment.

As noted above in Impact 5.7-1, during project construction, there is a possibility of accidental release of hazardous substances, such as spilling petroleum-based fuels used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant because of the small volume and low concentration of hazardous materials utilized during the construction phases. The project contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released would be appropriately contained and remediated as required the above noted local, State, and federal laws.

Project site investigations determined that historical underground fueling systems, including UST and fuel piping, were previously located onsite and have since have been removed and closed.

- Gasamat Service Station #956/Gasamat Oil Corporation, formerly located on the property at 2380 Henderson Road, is identified on several databases including the LUST database, the HAZNET database, UST databases, the EDR Historical Automobile Station database, and the CUPA Listings database. Three USTs were previously located at this site. A gasoline leak resulted in soil contamination at this facility in 1992. The leak was discovered during a tank tightness test. This case received regulatory agency closure in 1993, following the excavation and removal of a 4,000-gallon UST and contaminated soils. Two 15,000-gallon USTs were removed from this site in 2004. A UST Removal/Closure letter was issued by the Shasta County Department of Resource Management on April 6, 2004. No further action was required, and the case was closed. The structures on the property were demolished in 2004 and 2005, and these three parcels have consisted of undeveloped land from 2005 to 2016.
- Redding Transit Mix was listed at 2511 Henderson Road on the Historic UST database. One 10,000-gallon unleaded gasoline UST was located at this site, on APN 107-500-025. The UST was located to the east of the current subject property. The UST was removed on June 5, 2007, and soil samples were collected and analyzed from the UST excavation immediately following the removal of the UST. No significant TPHd, TPHg, fuel oxygenates, volatile aromatics, or lead levels were encountered in the soil samples analyzed. Groundwater was not encountered in the UST excavation. A Completion of UST Closure letter is on file with the Shasta County Department of Resource Management dated September 10, 2007. The letter confirms the completion of a site investigation and remedial action for the UST formerly located at 2511 Henderson Road. Based on the information provided in the UST Removal Report by Lawrence and Associates dated August 2007, no further action related to the UST release/removal was required. Based on the

location of the UST and the fact that a closure letter has been issued for this site, it is not considered a recognized environmental condition.

The February 2017 Phase I ESA concluded that no further environmental investigation of the parcels appears warranted at this time (refer to Appendix 15.6, PHASE I ENVIRONMENTAL SITE ASSESSMENT). Impacts in this regard are considered *less than significant*.

Demolition of buildings onsite may release asbestos containing materials (ACM) that were commonly used in buildings constructed during the time period when the buildings were constructed. The California Department of Toxic Substances Control (DTSC) classifies asbestos-containing material as hazardous waste if it is "friable" and contains one percent (1.0%) or more asbestos. A friable waste is one that can be reduced to a powder or dust under hand pressure when dry. This classification standard is given in the California Code of Regulations, title 22, section 66261.24(a)(2)(A). Cal-EPA is responsible for hazardous waste control. However, DTSC considers non-friable bulk asbestos-containing waste to be non-hazardous regardless of its asbestos content, so it is not subject to regulation under California Code of Regulations, title 22, division 4.5. Asbestos wastes must be handled and disposed of in accordance with the federal Toxic Substances Control Act (TSCA), 40 C.F.R. § 763. Asbestos waste must be placed in landfill sites approved for hazardous waste and must be transported by a registered hazardous waste transporter to a permitted treatment, storage, or disposal facility.

Demolition activities are regulated by standard permit requirements from local agencies, including the City of Redding. The demolition activities will be required to comply with local regulations which include additional testing and evaluation for hazardous materials contained in construction materials. **MM 5.7-1** provides detailed mitigations for the assessment and removal of any ACM from existing debris and buildings at the proposed project.

Implementation of **MM 5.7-1** as well as adherence with federal, State, and local regulations as part of the project development would protect site worker safety and would reduce potential impacts to these workers, and the public in general to a *less than significant* level.

Mitigation Measures:

MM 5.7-1: Prior to the issuance of a demolition or grading permit (whichever occurs first), the project applicant shall complete to the satisfaction of the City of Redding Development Services Department asbestos sampling and analysis to determine the presence of Asbestos Containing Materials (ACM) in existing construction building materials left onsite or within existing buildings. Existing construction materials are considered concrete, mortar, roofing materials, drywall and other known building materials that may contain asbestos.

Work shall be overseen by a Certified Asbestos Consultant, or other appropriately trained and certified professional licensed by the California Contractors State Licensing Board. Materials collected and sampled shall be tested by a laboratory certified by the State Water Resources Control Board, Environmental Laboratory Accreditation Program (ELAP). If wastes are discovered containing 1 percent or greater levels of ACM, an asbestos abatement program shall be prepared by a qualified professional to guide the removal and disposal of the ACM.

Asbestos waste shall be handled as a hazardous waste in accordance with CCR, Title 22, §66262.11(b)(2) and disposed of at an appropriately licensed landfill site approved for hazardous waste by the California Water Resources Control Board. Hazardous asbestos waste shall be transported by a registered hazardous waste transporter and accompanied by a uniform hazardous waste manifest. Final documentation and reporting shall be provided to the City of Redding Development Services Department.

Level of Significance After Mitigation: Impacts would be *less than significant* with mitigation incorporated.

IMPACT
5-7-3

The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Significance: Less Than Significant Impact.

Impact Analysis: Potential short-term and long-term impacts to emergency response and evacuation routes are discussed below.

Short-Term Construction

Some traffic delays can be expected during proposed project construction; however, the traffic impacts during construction are temporary in nature and will cease upon completion of construction activities. A Traffic Management Plan (TMP) is required to be developed by the project applicant and approved by the City Transportation and Engineering Department prior to the initiation of any construction activities to minimize disruption to existing traffic flow conditions. The TMP addresses details regarding road closures, provisions to maintain access to any adjacent properties, prior notices, adequate sign-posting, detours, and permitted hours of construction activity as determined appropriate by the City. Adequate local and emergency access to adjacent uses is required to be provided at all times. The TMP shall be reviewed and approved by the Redding Police Department, the Redding Fire Department, and other emergency service providers so that construction does not interfere with any emergency response or evacuation plans (refer to **MM 5.14-2** in Section 5.14, TRAFFIC AND CIRCULATION). Therefore, impacts related to interference with emergency response or evacuations during short-term construction would be *less than significant*.

Long-Term Operation

General Plan Figure 4-9, *Evacuation Routes – Flooding*, and Figure 4-10, *Evacuation Routes - Wildland Fires* (contained in the Health and Safety Element) identify those routes in, through and out of the City that are considered the most suitable for certain mass evacuations. With the exception of Cypress Avenue, no other roads immediately serving the proposed project are identified as an evacuation route in the City's *General Plan*.

Consistent with City fire requirements, site access is proposed at the following locations: one full-access southern driveway to Henderson Road (South); one full-access driveway to Parkview Avenue (Open Space Access); and two full-access driveways to Henderson Road (North). The proposed project would also be fully accessible to emergency vehicles through design of parking and vehicle drive aisles. As a result, the proposed project would not impair implementation of any emergency response plan or emergency evaluation plan as it would not alter existing roadways, physically interfere with existing roadway patterns, and can be developed in accordance with City fire standards. Impacts would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: No mitigation measures are required. Impacts would be *less than significant*.

IMPACT 5-7-4	<i>Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.</i>
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Significance: Less Than Significant Impact.

Impact Analysis: The project is not located in an area that is considered at risk for wildland fire and would not contribute to the potential for wildland fires. The proposed project site has been designated as non-very high wildland fire hazard potential (non-VHWFH) by the State of California and the City of Redding *Local Hazard Mitigation Program*. However, the Carr Fire demonstrated that wildland fire can easily move into developed neighborhoods and destroy homes and other structures thought to be fire safe.

Although not 100 percent effective under extreme fire conditions, design elements such as non-flammable exterior building materials, hardscape, water features, drought tolerant landscaping and green vegetation zones can reduce fire impacts. Onsite development envisioned by the proposed project includes paved roadways, developed buildings, parking lots, and undeveloped gravel lots. Building design would be in compliance with current CBC fire resistant building materials, fire protection systems (hydrants, sprinklers) and discontinuous vegetation to reduce the potential spread of fire. In addition, the proposed project is also located approximately 1.2 miles west of Fire Station 5 that would provide the primary emergency response to the site with a response time of between 4 and 5 minutes (refer to Section 5.12, PUBLIC SERVICES).

The proposed project is located within an urbanized area of the City designated as a non-VHWFH by the City and State. The proposed project would include fire protection systems (hydrants, sprinklers) and discontinuous vegetation that would minimize the risk of the project contributing to the overall potential fire severity of the immediate area. Impacts would be *less than significant*.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: No mitigation measures are required. Impacts would *be less than significant*.

5.7.7 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

The analysis of cumulative impacts focuses on those effects that, when combined together with other similar activities or projects could result in a large enough effect or impact that would be considered cumulatively significant. If the individual project's contribution is substantial enough, it may be considered cumulatively significant. In some instances, a project-specific impact may not combine with effects from other activities, in which case, the project's contribution to a cumulative effect would be less than considerable.

The health and safety hazards posed by most hazardous materials are typically local in nature. They generally do not combine in any cumulative sense with the hazards of other projects. Possible exceptions, however, include potential transportation of hazardous materials and waste disposal. The geographic scope for cumulative impacts to hazards and hazardous materials encompasses the projects included in Section 4.0, BASIS OF CUMULATIVE ANALYSIS, and development within the City and unincorporated Shasta County. For the transport of hazardous materials the geographic scope of cumulative impacts considers local roadways that include Cypress Avenue and Hartnell Avenue and the regional facilities of Interstate 5, SR-299, SR-273, and SR-44 within Shasta County. This geographic scope of analysis is appropriate because of influence of the area with wildfires, as well as the localized nature of hazardous materials impacts and other hazards discussed in this section.

IMPACT 5.7-5	<i>The proposed project, combined with cumulative development, could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.</i>
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Significance: Less Than Significant Impact.

Impact Analysis: With regard to the project's potential to create a significant hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials, the proposed project would be required to comply with the regulations, standards, and guidelines established by all applicable laws, ordinances, and regulations summarized above in Subsection 5.7.4, *Regulatory Setting*.

As previously described under Impact 5.7-1, based on the uses that would be part of the proposed project and the existing regulatory structure that controls the transport, use, storage, and disposal of hazardous materials, hazardous materials would not be transported, used, stored, or disposed of such that the proposed project would cause a threat to public safety, either during construction or operation of the project. Therefore, the risk that the proposed project would cause an accidental release of hazardous materials that could create a public or environmental health hazard is unlikely. Impacts in this regard are considered *less than significant* and the project's incremental contribution to this impact is not cumulatively considerable.

Hazardous materials are transported on virtually all public roads, particularly since all motor vehicles contain hazardous materials (e.g., fuel) in addition to any hazardous cargo that may be on board. The majority of hazardous materials would be associated with the proposed hospital operations. The hazardous materials used during the construction of the proposed project must comply with federal,

State, and local regulations regarding the handling and transportation of such materials, thereby reducing the potential for accidental release of those materials to the environment. Compliance with the regulations would ensure that the medical waste and other hazardous materials that would be generated from the proposed project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur. The cumulative effects of transporting hazardous materials would continue to be addressed by existing regulatory requirements of the CHP. Packaging requirements for hazardous materials and wastes established by Caltrans, the USPS, and the EPA minimize the potential consequences of possible accidents during transport.

As discussed above, the transport, use, storage, and disposal of hazardous materials is governed by a substantial body of existing regulations. These regulations are intended to reduce the potential for exposure by controlling the pathways by which persons could be exposed to hazardous substances to ensure that effects are *less than significant*. Compliance with these regulations is required by all projects and handlers of these materials. Therefore, the proposed project would not be expected to combine with similar impacts of past, present, or reasonably foreseeable projects to result in a cumulative impact related to the transportation, use, or disposal of hazardous materials. Impacts would be cumulatively *less than significant*.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: No mitigation measures are required. Impacts would be cumulatively *less than significant*.

IMPACT 5.7-6	<i>Project construction activities, combined with cumulative development, could create a significant hazard to the public through foreseeable upset and accidental conditions.</i>
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Significance: Less Than Significant Impact.

Impact Analysis: With regard to creation of a hazard through upset or accident conditions involving a hazardous material release, the potential exists for project activities to result in the release of hazardous materials in the soil resulting in exposure of personnel and other sensitive receptors to contaminant levels that could result in short-term and/or long-term health effects. The project’s incremental contribution to this impact is not considered cumulatively considerable because of the localized nature of the impacts, and because appropriate safety, cleanup, and disposal methods would be implemented to reduce the impact to a level that would not combine with impacts of other projects. Although mitigation measures are required under Impact 5.7-2, the impacts would not have the potential to make a cumulatively considerable contribution in combination with impacts from past, present, or reasonably foreseeable projects to result in a cumulative impact. Impacts would be cumulatively *less than significant*.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: No mitigation measures are required. Impacts would be cumulatively *less than significant*.

IMPACT 5-7-7	<i>The proposed project, combined with cumulative development, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</i>
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Significance: Less Than Significant Impact.

Impact Analysis: With regard to interference with an adopted emergency response plan or emergency evacuation plan, construction-related traffic could interfere with emergency response/evacuation to and from the project site or with emergency response to residences or businesses in the project vicinity; however, with implementation of the required TMP outlined above, this temporary impact would not be significant. While traffic would increase as a result of the proposed project, implementation of **MM 5.14-1** through **MM 5.14-4** in Section 5.14, TRAFFIC AND TRANSPORTATION, would also reduce impacts on emergency access and evacuation routes to a *less than significant* level. Therefore the project's incremental contribution would not be cumulatively considerable.

The proposed project has the potential to combine with other current and future projects that would generate high volumes of traffic on area roadways by creating a cumulative traffic burden on local roadways (Cypress Avenue, Hartnell Avenue, Bechelli Lane) as a result of increased volume of vehicles. However, given the relatively close proximity of emergency services, the implementation of a TMP during construction and traffic mitigation measures developed on a project-by-project basis, the potential for a significant cumulative impact to emergency response is unlikely. Impacts would be cumulatively *less than significant*.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: No mitigation measures are required. Impacts would be cumulatively *less than significant*.

IMPACT 5-7-8	<i>The proposed project, combined with cumulative development, would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.</i>
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Significance: Less Than Significant Impact.

Impact Analysis: With regard to exposing people or structures to a wildland fire hazard, the project is not located in an area that is considered at risk for wildland fire and would include fire protection systems (hydrants, sprinklers) and discontinuous vegetation that would minimize the risk of the project contributing to the overall fire severity of the immediate area. Therefore, the project's incremental contribution with regards to exacerbating fire hazards would not be cumulatively considerable.

Future projects within the City and Shasta County would be required to undergo environmental analysis on a pursuant to CEQA. As needed, project specific mitigation measures would be required on a project-by-project basis to minimize an individual development's contribution to exacerbating the risk of wildland fires. Policies contained within both the City and County general plans and hazard mitigation plans address fire prevention measures on open space lands to reduce the risk of wildland fires. With implementation of applicable City and County *General Plan* policies, City and County fire standards, and defensible space requirements pursuant to California Public Resources Code 4291, impacts would be *less than significant*. Therefore, impacts of the proposed project, combined with impacts from past present, or reasonably foreseeable projects would not have the potential to significantly exacerbate fire risks in the area. Impacts would be cumulatively *less than significant*.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: No mitigation measures are required. Impacts would be cumulatively *less than significant*.