4.10 HAZARDS AND HAZARDOUS MATERIALS

4.10.1 INTRODUCTION

This section evaluates the potential impacts of the proposed project associated with exposing construction workers and future occupants to existing hazards and hazardous materials, and with exposing surrounding residences and other land uses to project-related hazards. This analysis is based on review of the *Final Hazardous Materials Investigation Report, Karl Holton State Youth Facility, Stockton, California* prepared by Fugro West, Inc. (Fugro) (2007), and on EDAW's review of the U.S. Environmental Protection Agency's (EPA's) Envirofacts Web site database and the California Department of Toxic Substances Control's (DTSC's) EnviroStor Web site.

4.10.2 ENVIRONMENTAL SETTING

EXISTING CONDITIONS

The western portion of the project site is currently occupied by the former Karl Holton Youth Correctional Facility. The project site is essentially flat with a surface elevation of 35–40 feet (National Geodetic Vertical Datum of 1929) (Fugro 2007). The site is surrounded by agricultural fields to the north and east and existing facilities of the Northern California Youth Correctional Center (NCYCC) (California Department of Corrections and Rehabilitation) to the south and west. Littlejohns Creek lies about 1 mile south of the site. The creek flows in a west-southwest direction and discharges into Lone Tree Creek. A landfill operated by Forward Inc. is about 1 mile south of the existing facility. A former automotive repair shop is located on the grounds of the Karl Holton Youth Correctional Facility site.

The O. H. Close Youth Correctional Facility, the school arm of the California Youth Authority's youth detention facility, is located behind a security perimeter fence directly adjacent to the project site's western boundary. The next nearest school, Venture Academy Charter School, is located nearly 2 miles west of the project site. Other uses in the area consist primarily of agriculture, rural residences, and industrial facilities.

Database Searches

EDAW searched EPA's Envirofacts Web site (EPA 2008) and EnviroMapper. The Envirofacts Web site presents information from several regulatory agencies and databases, including those for EPA, DTSC, and the Governor's Office of Emergency Services. EDAW used the EnviroMapper to depict graphically whether EPA maintains any information in Envirofacts about the project site. EDAW also checked DTSC's EnviroStor Web site (DTSC 2008), which maps properties regulated by DTSC where extensive investigation and/or cleanup actions are planned or have been completed at permitted facilities and cleanup sites. According to these Web sites, the project site was not listed in any of the regulatory databases (EPA 2008, DTSC 2008).

Final Hazardous Materials Investigation Report

Because the site has a long history of use, CPR conducted a hazardous-materials investigation. The final hazardous materials investigation report prepared by Fugro for CPR (Fugro 2007) describes the investigation of project site soils, groundwater, and building materials for the potential presence of contamination or hazardous materials. This report included the results of a Phase II environmental site assessment (Young, pers. comm., 2008). Additionally, Fugro subcontracted with SCA Environmental, Inc., to conduct a hazardous-materials survey of the site's existing building materials. The results of this investigation are included in the final hazardous materials investigation report. The purposes of the report were to document recognized environmental conditions on the project site related to the area's current and historical uses and to evaluate the potential for a release of hazardous materials that could significantly affect the site's environmental conditions. Field investigations were performed on April 23 and 27, 2007, and September 5 and 6, 2007. The report's testing methods and detailed results are described in Appendix H.

Subsurface Soil and Groundwater Conditions

The soil and groundwater investigation consisted of drilling and sampling 10 soil and groundwater borings (borings E-1 through E-10), 14 geotechnical borings (B-1 through B-14), and construction and monitoring of three piezometers (B-1, B-3, and B-8) at the site. Fugro collected soil and groundwater samples for subsequent chemical analyses at a state-certified laboratory. The following subsurface conditions were noted:

- No evidence of contamination, staining, odors, or significant organic vapor meter readings was observed in the soil samples collected. The organic vapor meter detects the presence of many organic vapors such as gasoline and solvents (Fugro 2007).

- Groundwater was found in the three piezometers at depths between 66.2 feet and 67.1 feet. No total petroleum hydrocarbons as diesel (TPHd), total petroleum hydrocarbons as motor oil (TPHmo), or volatile organic compounds (VOCs) were detected in the groundwater samples. Arsenic concentrations exceeding EPA-established maximum contaminant levels (MCLs) were detected in two samples and thallium concentrations exceeding MCLs for drinking water were detected in all three samples.

- Groundwater was encountered in only one of the hazardous-materials borings, E-4, at approximately 9 feet below grade. The borings were drilled and sampled to a depth of 10 feet. Because the three piezometers had water depths greater than 65 feet, it is assumed that the water observed at E-4 is the result of leaky water pipes in the nearby buildings or perched water from irrigation.

As described in Section 4.6, "Hydrology and Water Quality," tetrachloroethylene (PCE) was found in concentrations above the MCL of 5.0 micrograms per liter (µg/l) in two samples collected on March 26, 2007, from an indoor faucet at the NCYCC facility. The PCE concentrations are 7.0 µg/l and 7.2 µg/l, respectively. Based on these readings, the California Department of Health Services (DHS), now the California Department of Public Health, cited NCYCC (Citation Number 03-10-07C-004), and the DHS Division of Drinking Water and Environmental Management directed NCYCC to sample all wells and sample from the same indoor faucet where the PCE concentration exceedance had been found. Samples were collected from three of the wells and the indoor faucet on April 12, 2007. The PCE concentration from the indoor faucet sample was 8.3 milligrams per liter (mg/l). Well No. 2 had a PCE concentration of 8.8 mg/l, Well No. 4 had a nondetection of PCE (the reporting limit was 5.0 mg/l), and Standby Well No. 3 had a PCE concentration of 1.6 mg/l.

Surface Conditions

On-Site Soils

Fugro conducted several tests of on-site soils to determine the presence of surface soil contamination at the project site. Testing methodology and sample size information can be found in Appendix H of this DEIR. The results of these tests are as follows:

- Elevated TPHd and TPHmo (420 and 880 milligrams per kilogram, respectively) were detected at boring E-4 at 6.5 feet located at the project site's former automotive shop.

- Elevated concentrations of semivolatile organic compounds (SVOCs) were detected at boring E-4 at 6.0 feet (45,000 micrograms per kilometer of Benzo(a)pyrene), exceeding California human health screening levels criteria. The presence of the SVOCs in this sample appears related to the TPHd and TPHmo detected in boring E-4 at 6.5 feet.

- Polychlorinated biphenyls (PCBs) were not detected in any of the soil samples.

- VOCs were not detected in any of the samples.

- Elevated concentrations of chlorinated pesticides were detected in boring E-5 at 0.5 foot where the concentrations of aldrin, chlordane, and dieldrin exceed their respective CHHSL criteria.

- Fugro analyzed 16 soil samples for the 17 metals for which standards are set in Title 22 of the California Code of Regulations (see the discussion of state regulations below in Section 4.10.3, "Regulatory Considerations") metals, including arsenic and thallium. In general, detected concentrations of metals are similar to anticipated background values, and no detected concentrations exceeded respective total threshold limit concentrations criteria as listed in Title 22. The metals concentrations are similar to anticipated background levels and are considered to be below levels of concern.

Survey of Building Materials

Building materials on the site were surveyed to identify any hazardous materials in the existing permanent structures and two trailers before demolition of the structures. The results of survey are as follows:

- In general, the survey of building materials identified the presence of asbestos-containing material (ACM) (greater than 1%) in samples of materials from all of the buildings surveyed. The ACM was detected in the vinyl floor tile and mastic, window caulks and putties, ceiling tile, canvas-wrapped piping and boiler insulation, and various roofing materials.

- Paint containing lead was found in each structure at concentrations ranging from 0.01 to more than 5 milligrams per cubic centimeter. Paints in the buildings were generally noted to be in good to fair condition.

- The presence of fluorescent light tubes was noted. These tubes may contain mercury and light ballasts that may contain PCBs.

4.10.3 REGULATORY CONSIDERATIONS

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

EPA is the principal federal agency that regulates the generation, transport, storage, and disposal of hazardous substances, under the authority of the Resource Conservation and Recovery Act (RCRA). EPA regulates hazardous substance sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). Applicable federal regulations are outlined in Titles 29, 40, and 49 of the Code of Federal Regulations (CFR).

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, among them the California Environmental Protection Agency (Cal/EPA) and the Governor's Office of Emergency Services. The California Highway Patrol and California Department of Transportation (Caltrans) enforce regulations specifically related to the transport of hazardous materials. Within Cal/EPA, the California Department of Toxic Substances Control (DTSC) has primary authority for enforcing regulations related to hazardous materials. State hazardous waste regulations are detailed primarily in Title 22 of the California Code of Regulations. Individual regional water quality control boards are the lead agencies responsible for identifying, monitoring, and cleaning up leaking underground storage tanks.

The California Human Health Screening Levels (CHHSLs or "Chisels") are concentrations of 54 hazardous chemicals in soil or soil gas that the California Environmental Protection Agency (Cal/EPA) considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment (OEHHA) on behalf of Cal/EPA. The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of one-in-a-million (10^{-6}) and a hazard quotient of

1.0 for noncancer health effects. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the U.S. Environmental Protection Agency (USEPA) and Cal/EPA.

California Occupational Safety and Health Administration's (Cal/OSHA's) lead in construction regulation (Title 8, Section 1532.1 of the California Code of Regulations [8 CCR 1532.1]) provides specific regulation to limit exposure of construction workers to lead.

The California Department of Public Health (formerly California Department of Health Services) regulates the disposal of medical waste in accordance with the California Medical Waste Management Act (California Health and Safety Code, Sections 117600–118360).

The use of radiologic materials is governed by the Radiologic Health Branch (RHB) of the California Department of Public Health's Food, Drug, and Radiation Safety Division. The branch enforces the laws and regulations indicated below designed to protect the public, radiation workers, and the environment.

- Radiation Control Law (Health and Safety Code, Section 114960 et seq.)
- Radiologic Technology Act (Health and Safety Code, Section 27[f])
- Nuclear Medicine Technology Certification (Health and Safety Code, Sections 107150–107175)

Regulations implementing the above laws are in Title 17, Division 1, Chapter 5, Subchapters 4.0, 4.5, and 4.6 of the California Code of Regulations.

The Dangerous Weapons Control Laws (Title 2 of Part 4 of the California Penal Code) are enforced by the California Department of Justice lay out specific "safe storage" requirements for firearms and other weapons.

LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

San Joaquin County Environmental Health Department

The San Joaquin County Environmental Health Department regulates the cleanup of contaminated properties in its jurisdiction in coordination with Cal/EPA.

San Joaquin County General Plan 2010

The *San Joaquin County General Plan 2010* does not specifically address the potential for existing hazardous materials in the project area but includes policies regarding the safe use, manufacture, production, transportation, storage, treatment, disposal, and cleanup of hazardous materials and wastes. The following policies in the general plan's Hazardous Materials and Wastes Element are applicable to the proposed project.

- **Policy 1:** Hazardous materials and wastes shall not contaminate air or water resources or soils.
- **Policy 2:** The use, storage and disposal of hazardous materials and wastes shall be controlled to prevent harm to individuals.
- **Policy 3:** Land uses and structures which contain hazardous materials or wastes which may be a safety hazard for nearby areas shall be located away from existing and planned populated areas.
- **Policy 4:** The use of hazardous materials and the creation of hazardous wastes shall be minimized.
- **Policy 5:** All development shall be consistent with the County's Waste Management Plans.

City of Stockton General Plan 2035

The following goal and policies in the adopted *City of Stockton General Plan 2035* relating to health and safety are applicable to the proposed project.

- **Goal HS-5:** To minimize the risk to City residents and property associated with the transport, distribution, use, and storage of hazardous materials.

    - **Policy HS-5.2: Hazardous Materials.** The City shall require that hazardous materials are used, stored, transported, and disposed of within the city in a safe manner and in compliance with local, State, and Federal safety standards.

    - **Policy HS-5.3: Designated Routes for Hazardous Materials Transport.** The City shall restrict transport of hazardous materials within the city to routes that have been designated for such transport.

    - **Policy HS-5.4: Hazardous Materials Management.** The City shall cooperate with the County in the identification of hazardous material users (both large and small scale) and in the development of an inspection process and hazardous materials management plan.

    - **Policy HS-5.8: Compatibility with Surrounding Land Uses.** The City shall use the development review process to ensure compatibility between hazardous material users and surrounding land use.

    - **Policy HS-5.9: Hazardous Materials Studies.** The City shall ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Recommendations required satisfying Federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.

4.10.4 IMPACTS AND MITIGATION MEASURES

ANALYSIS METHODOLOGY

The following reports and materials were reviewed in assessing the potential for hazardous conditions at the project site:

- plans for the proposed project;

- federal and state websites, including U.S. Environmental Protection Agency's (EPA's) Envirofacts Web site database and the California Department of Toxic Substances Control's (DTSC's) EnviroStor Web site;

- applicable elements from the *San Joaquin County General Plan 2010* and *City of Stockton General Plan 2035*; and

- *Final Hazardous Materials Investigation Report Karl Holton State Youth Facility Stockton, California* (Fugro 2007).

To evaluate the significance of the chemicals detected, Fugro compared the results of the analyses to California human health screening levels for residential land use established by the state Office of Environmental Health Hazard Assessment. Because some of the chemicals lacking such screening-level criteria, results were then compared to preliminary remedial goals established by EPA Region 9. Fugro used professional judgment where neither established California health screening levels nor preliminary remedial goals were available. To assess waste disposal options, Fugro compared the chemical results to total threshold limit concentrations listed in Title

22 of the California Code of Regulations, one of the criteria used to classify a soil as hazardous. Details regarding Fugro's testing methodology, data collection and analysis, and sample sizes are located in Appendix H.

In addition to reviewing the above materials, EDAW searched EPA's Envirofacts Web site and DTSC's EnviroStor Web site (as described above) to identify any known existing hazardous material storage/use or any existing or historic contamination on the project site and in the project vicinity. Project activities were evaluated against the hazardous materials information gathered from the above sources to determine whether any risks to public health and safety or other conflicts would occur.

SIGNIFICANCE CRITERIA

In accordance with Appendix G of the State *CEQA Guidelines*, an impact of the proposed project related to hazards and hazardous materials would be considered significant if the project would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- result in hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- be located on a site that is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 of the California Government Code and, as a result, would create a significant hazard to the public or the environment;
- result in a safety hazard for people residing or working in the project area, where the project is located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport;
- result in a safety hazard for people residing or working in the project area, where the project is located near a private airstrip;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- 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.

ISSUES NOT DISCUSSED FURTHER

The project is not located near a private airstrip; therefore, it would not result in a safety hazard associated with a private airstrip. However, the southwest corner of the project site is within the Stockton Metropolitan Airport's area of influence. Although this portion of the site is located within the area of influence, the project site is over 1 mile east of the airport's runway safety area, runway object free area, and building restriction line. In addition, an airport obstruction analysis is required by the FAA for a project that is within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft. The proposed project is located approximately 9,000 feet northeast of the end of the nearest runway (which is greater than 3,200 feet). At this distance, in order to require an airport obstruction analysis, project structures would need to be at least 90 feet tall (9,000 feet at the 100:1 slope). The tallest structure proposed for the project is the 54-foot guard tower. Therefore, the proposed project would not require an airport obstruction analysis and would not result in hazards associated with an airport and this impact is not

discussed further. See Section 4.5 "Noise" for noise impacts associated with the airport and Section 4.1 "Land Use" for discussion regarding conflicts with the Airport Land Use Compatibility Plan.

The project site and vicinity are relatively flat and vegetation is generally either irrigated and harvested or regularly disked; therefore, the project site is not located near wildland hazard areas. These issues will not be discussed further in this DEIR.

PROJECT IMPACTS AND MITIGATION MEASURES

IMPACT HAZ-1 **Hazards to a Nearby School or the General Public Related to Use, Transport, and Disposal of Hazardous Materials.** *The proposed project would involve the storage, use, and transport of hazardous materials at the project site during construction. In addition, because the project proposes medical and correctional uses, some facilities could use hazardous materials during operation. However, use of hazardous materials at the site would be in compliance with federal, state, and local regulations. (Less than significant)*

As mentioned above in Section 4.10.2, "Environmental Setting," the O. H. Close Youth Correctional Facility, the school arm of the Division of Juvenile Justice's youth detention facility, is behind a security perimeter fence located adjacent to the west side of the project site. The next nearest school, Venture Academy Charter School, is located more than 2 miles west of the project site. Other uses in the area are primarily agriculture, rural residences, and industrial facilities.

As defined by California Health and Safety Code, Section 25502, "hazardous materials" are those "that, because of their quantity, concentration, or physical or chemical characteristics, pose a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment."

"Hazardous waste" is a subset of hazardous materials and is defined as "wastes that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may either cause, or significantly contribute to, an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise management." (Health and Safety Code, section 25517.) Hazardous materials can be categorized as non-radioactive chemicals materials, radioactive materials and biohazardous materials. Non-radioactive chemical materials typically fall within the definitions of hazardous materials and hazardous waste, as defined above. Radioactive and biohazardous materials are further defined below:

- Radioactive materials contain atoms with unstable nuclei that spontaneously emit ionizing radiation to increase their stability. Radioactive wastes are radioactive materials that are discarded, including waste in storage, or abandoned.

- Biohazardous materials are materials that contain certain infectious agents (microorganisms, bacteria, molds parasites, viruses) that normally cause or significantly contribute to increased human mortality, or organisms that are capable of being communicated by invading and multiplying in body tissues.

- Medical waste includes both byproducts of biohazardous materials, and devices capable of cutting or piercing (commonly referred to as "sharps"), such as hypodermic needles, razor blades, and broken glass, resulting from the diagnosis, treatment, or immunization of human beings, or research pertaining to these activities

The hazards posed by chemicals, radioactive materials, and infectious agents vary. Some chemicals can pose physical hazards, such as chemical burns, or health hazards, such as poison, which could potentially result in acute or chronic illnesses. The properties and health effects of different chemicals are unique to each chemical and risks vary depending on the extent to which an individual is exposed. Excessive radiation exposure, whether from radiation-producing equipment or radioactive materials, can result in headaches, skin burns, or chronic illnesses, including cancer. Exposure to biohazardous materials can result in a range of illnesses, depending on the

infectious agent encountered. Some infections can result in short-term discomfort, which can be easily treated or go away by themselves. Other illnesses can be result in serious acute effects and result in dangerous disruption of life functions. Some chronic diseases may or may not be curable or treatable. Some diseases may be communicable. In all these cases, the risks posed by the hazardous materials depend on the potential for exposure.

Developing the project site with institutional uses would involve the storage, use, and transport of hazardous materials (e.g., asphalt, fuel, lubricants, paint) during construction activities. The project's operation would include activities and facilities that would routinely transport common hazardous materials (e.g., cleaning fluids, solvents, chemicals) on and off the project site. Facilities maintenance activities would require various common hazardous materials, including cleaners (which may include solvents and corrosives, in addition to soaps and detergents); paints; pesticides and herbicides; fuels (e.g., diesel); and oils and lubricants. Transportation of hazardous materials on area roadways is regulated by the California Highway Patrol and Caltrans, whereas use of these materials is regulated by DTSC, as outlined in Title 22 of the California Code of Regulations. The proposed medical use would involve the frequent use of less common hazardous materials. Medical uses typically generate, store, use, and dispose of various types of hazardous waste such as biohazardous waste, pharmaceutical waste, and other toxic chemicals associated with medical instruments, including radioactive waste from X-ray machines (although X-ray machines do not involve radioactive *substances*, they are regulated as radioactive materials).

The project-related effects of hazardous materials handled on site would generally be limited to the immediate areas where materials would be located because this is where exposure would most likely occur. Accordingly, the individuals most at risk would be the employees at Triage Treatment Clinic and medical clinic in the Diagnostic and Treatment center, or others in the immediate vicinity of hazardous materials. The routes through which these individuals could be exposed include inhalation, contact, ingestion, injection, and other accidents. Aside from accidents possibly occurring on-site, accidents during hazardous waste transport to and from the site could expose individuals and the environment to risks at some distance from the project site. However, transportation accidents are infrequent.

As described in the Regulatory Considerations section above, federal and state laws set occupational safety standards to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many entities to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. For instance, manufacturers must appropriately label containers, Material Safety Data Sheets must be available in the workplace, and employers must properly train workers. The U.S. Occupational Safety and Health Administration's Bloodborne Pathogens Standard requires the use of Universal Precautions (handling all human blood and certain body fluids as if they contain infectious agents) in the workplace. Operation of the proposed project would require compliance with these federal and state safety standards and practices, regarding workplace safety and providing a safe and healthy environment for patient care. For the most part, the health and safety procedures that protect workers and other individuals in the immediate vicinity of hazardous materials would also protect the more distant community and environment.

Medical waste management is regulated by the California Department of Public Health under the Medical Waste Management Act (California Health and Safety Code, Sections 117600–118360). Because the project would generate more than 200 pounds of medical waste annually, it is considered a "Large Quantity Generator" and would consequently require registration with DHS, which includes preparation of a Medical Waste Management Plan (including an emergency action plan complying with DHS regulations), as well as annual inspections from DHS. The local enforcement agency for the project would be the San Joaquin County Environmental Health Department. The Environmental Health Department administers a medical waste program, which is designed to protect the general public, health care facility, and solid waste management personnel from injury and exposure to pathogenic organisms in medical waste. The project's participation in the Environmental Health Department's

medical waste program would ensure that all medical waste generated at the project site are handled, transported, stored, and disposed of in a manner consistent with the California Medical Waste Management Act.

With respect to radioactive hazards, the Radiologic Health Branch of the California Department of Public Health's Food, Drug, and Radiation Safety Division is responsible for providing public health functions associated with administering a radiation control program. This includes licensing of radioactive materials, registration of X-ray-producing machines, certification of medical and industrial X-ray and radioactive material users, inspection of facilities using radiation, investigation of radiation incidents, and surveillance of radioactive contamination in the environment. X-ray machines used as part of the proposed health care facility operation would require licensing from the Radiologic Health Branch, and the operations of the machines, including radioactive waste disposal, would be required to meet the branch's requirements. To maintain a radioactive materials license, an institution must meet training and radiation safety requirements and be subject to routine inspections.

Hazardous materials specific to correctional uses are generally limited to firearms, ammunition, and other miscellaneous weaponry, such as tear gas and pepper spray canisters. The proposed project includes an armory for the safe and secure storage of firearms, ammunitions, and miscellaneous weaponry. The armory would be constructed to meet the "safe storage" requirements of Dangerous Weapons Control Laws (Title 2 of Part 4 of the California Penal Code) as regulated by the California Department of Justice. The proposed corrections operation would not use or store any high explosives or incendiary devices. Therefore, because the firearms and ammunitions would be used and stored according to state regulations, the proposed project would not result in a risk related to the storage of weapons on the site.

During construction of the project the builders, contractors, and others would be required to use, store, and transport hazardous materials in compliance with federal, state, and local regulations. Facilities that would use hazardous materials on-site after the project is constructed would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid releases of hazardous waste.

Although the O. H. Close Youth Correctional Facility, which provides schooling to existing NCYCC wards, is located adjacent to the project site, all project-related hazardous materials and associated activities are regulated by state agencies. The project would implement and comply with existing hazardous material regulations. This impact would be less than significant.

Mitigation Measure(s) for Impact HAZ-1:

No significant impacts would occur, so no mitigation measures are required.

IMPACT HAZ-2 Exposure of Construction Workers to Surficial Hazardous Materials. *Recognized environmental conditions, including elevated concentrations of petroleum hydrocarbons, semivolatile organic compounds, and chlorinated pesticides were identified in project site soils. In addition, asbestos, lead, and PCBs from mercury light bulbs are present in the existing structures located on the project site. Demolition of existing structures at the project site and excavation and construction activities could expose construction workers to hazardous materials. (Significant, less than significant after mitigation)*

Elevated total petroleum hydrocarbons associated with diesel and motor oil (TPHd and TPHmo) were detected at boring E-4 located at the auto shop of the former Karl Holton Youth Correctional Facility (Fugro 2007). Elevated concentrations of SVOCs were detected at the same boring location. The concentrations of these contaminants exceeds the California human health screening levels criteria. The presence of the SVOCs in this sample appears related to the TPHd and TPHmo detected in boring E-4. Elevated concentrations of chlorinated pesticides were detected in boring E-5 where the concentrations of aldrin, chlordane, and dieldrin exceed their respective criteria.

Based on these soil sample data, the final hazardous materials investigation report recommended that soils with contaminant concentrations exceeding the California human health screening levels criteria should be removed from the site before development of the project site. Additional investigation is currently under way on the project site to identify the exact boundary of the existing contamination.

In general, the survey of building materials (Fugro 2007) identified the presence of ACM in building-material samples from all of the buildings surveyed. The presence of fluorescent light tubes was noted. Such tubes may contain mercury and light ballasts that may contain PCBs.

Paint containing lead was found in each structure at concentrations ranging from 0.01 mg/cm^2 to 5 mg/cm^2. Current EPA and Cal/EPA regulations do not require that paint containing lead be removed before demolition unless it is loose and peeling. Paint in the buildings was generally noted to be in good to fair condition at the time of the survey; loose and peeling paint was not observed. However, if loose and peeling paint were to be encountered during demolition activities, that paint may be classified as a hazardous waste if concentrations were to exceed the total threshold limit concentrations. Therefore, additional sampling and analysis for leachable lead content by the contractor or consultant during demolition is required for waste characterization purposes. Because most paints at the on-site buildings were found to contain lead, for the purpose of complying with the Cal/OSHA lead in construction regulation (8 CCR 1532.1), all coated surfaces are assumed to potentially contain some lead. The Cal/OSHA regulation contains requirements for lead air monitoring, work practices, and respiratory protection that are triggered by the presence of even very low levels of lead.

Developing the project site would involve demolishing existing on-site facilities, grading, excavation, and constructing new institutional facilities. These construction activities at or near existing structures or recorded or currently unrecorded contaminated soil could expose construction workers to hazardous materials. This impact would be significant.

Mitigation Measure(s) for Impact HAZ-2:

Additional Investigation of Soil Contamination and Preliminary Soil Excavation Plan. CPR will implement the following measures to remediate existing soil contamination on the project site:

- CPR will complete the additional investigation of contaminated soil before excavation to further define the extent of contaminated soil near borings E-4 and E-5. The scope of that work will include soil sampling at 8–16 "step-out" borings in the vicinity of the affected areas. Those borings will be placed approximately 20 feet from borings E-4 and E-5 to assess the lateral extent of contaminated soil. Selected soil samples will be analyzed for TPHd, TPHmo, SVOCs, and chlorinated pesticides.

- Based on the results of the additional investigation, CPR will hire a qualified technician to create a preliminary plan of soil excavation and disposal that includes the entire area of contamination (an area approximately 70 feet by 100 feet and 8 feet deep, encompassing the locations of both borings E-4 and E-5, with a preliminary in-place soil volume of approximately 2,100 cubic yards). The goal of the soil excavation plan and disposal plan will be to remove all the soils containing chemical concentrations in excess of the California human health screening levels and render excavated soil suitable for disposal as a nonhazardous waste, subject to additional testing as required by the appropriate landfill.

- Soil removal activities will be completed in accordance with state and local regulatory requirements. As recommended in the final hazardous materials investigation report, CPR will contact DTSC to discuss the findings and approach for remediation discussed herein. Typically, DTSC will require a contractual arrangement (voluntary cleanup agreement) to fund their oversight costs during the removal action. If required by DTSC, CPR will prepare a work plan for conducting additional investigations and will prepare a remedial action work plan before affected soil is excavated.

Abatement of Lead Paint Hazards Related to Existing Buildings. If loose and peeling paint is encountered during demolition, CPR will conduct sampling and analysis for leachable lead content to characterize the waste. Because most paints at the on-site buildings were found to contain lead, and for the purpose of complying with the California Occupational Safety and Health Administration's (Cal/OSHA's) lead in construction regulation (Title 8, Section 1532.1 of the California Code of Regulations [8 CCR 1532.1]), all coated surfaces will be considered to contain some lead. As required by 8 CCR 1532.1, CPR will provide monitoring of lead in the air monitoring, adaptive work practices, and respiratory protection to avoid exposure to the presence of even very low levels of lead where the lead is loose and peeling.

Asbestos Abatement. Before demolition, materials to be removed will be tested for the presence of asbestos. Also, CPR will perform a survey of building materials at the portable trailers near the educational buildings to assess the presence of paint containing lead and ACM; any lead-containing paint and ACM encountered in the trailers will be removed according to federal, state, and local regulations, including appropriate notification, equipment, handling, and disposal. Consistent with the requirements of the San Joaquin Air Quality Management District, friable ACM with greater than 1% asbestos will be properly disposed of as asbestos waste in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations.

Significance after Mitigation

With the implementation of the mitigation measures for Impact HAZ-2, the likelihood of exposure of construction workers to soil contaminants would be reduced. Additional analysis of loose or peeling paint during demolition would reduce impacts of lead-based paint on construction workers by triggering Cal/OSHA regulations. Finally, further investigation of the presence of asbestos in on-site trailers as well as asbestos removal and disposal in accordance with NESHAP regulations before demolition would reduce the likelihood of exposure of construction workers to asbestos. Therefore, this impact would be reduced to a less-than-significant level after mitigation.

IMPACT HAZ-3 **Interference with an Adopted Emergency Response Plan or Emergency Evacuation Plan.** *The NCYCC has a facilitywide disaster emergency plan and also works cooperatively with the San Joaquin County Office of Emergency Services. (Less than significant)*

The NCYCC has a facilitywide disaster emergency plan and also works cooperatively with the County's Office of Emergency Services (OES). The OES does all of the following:

- prepares disaster response plans and procedures and improve response capabilities;
- coordinates public safety agency response to large-scale emergencies in San Joaquin County;
- responds to hazardous materials incidents in the unincorporated area;
- provides instructions and information to the public during disasters;
- assists businesses in complying with Chapter 6.95 of the Health and Safety Code, Hazardous Materials Management Plans and Inventories;
- assists businesses in complying with the Federal Risk Management Plan Program;
- makes hazardous materials "Community-Right-To-Know" information available to the public; and
- provides disaster preparedness presentations to community groups.

The proposed project would participate in NCYCC's disaster emergency plan, and would also coordinate with the OES. Because the OES generally oversees large-scale emergency and disaster response plans, coordination with

OES would ensure that the project would not interfere with these plans. Therefore, the proposed project would not result in interference with adopted emergency response or evacuation plans. This impact would be less than significant.

Mitigation Measure(s) for Impact HAZ-3:

No significant impacts would occur, so no mitigation measures are required.

IMPACT HAZ-4 Exposure of Construction Workers to Groundwater Exceeding Water Quality Standards. *Arsenic and thallium were detected at concentrations exceeding maximum contaminant levels. The presence of arsenic and thallium in the groundwater may limit the use of the groundwater as a source of drinking water, but it does not represent a project-related human health hazard because the project would connect to the City of Stockton's water supply as the sole water supply source. (Less than significant)*

Results of analyses on groundwater samples from on-site borings (B-1, B-3, and B-8) were compared to MCLs for drinking water established by EPA. Analyses detected no TPHd, TPHmo, or VOCs in the groundwater samples. However, analyses detected arsenic concentrations exceeding MCLs in two samples and thallium concentrations also exceeding MCLs in three samples. For the remaining metals, detected metals concentrations, if any, were below their respective MCLs. The presence of arsenic and thallium in the groundwater may limit the use of the groundwater as a source of drinking water; however, because the proposed project would connect to the City of Stockton's water supply and not use groundwater, on-site users would not be exposed to toxics in groundwater. Further, based on the boring samples, the depth to groundwater at the project site is approximately 60–70 feet, which decreases the chances of exposure to contaminated groundwater for construction workers during excavation activities. Therefore, this impact would be less than significant.

Mitigation Measure(s) for Impact HAZ-4:

No significant impacts would occur, so no mitigation measures are required.