

9.0 HAZARDS

This section addresses potential impacts related to hazards and hazardous materials as a result of the proposed project. The areas of analysis include: hazardous materials, hazardous waste, medical waste, public security, fire hazards, and aircraft safety. Documents reviewed and incorporated as part of this analysis include *Review of the Document Titled "Site Mitigation Plan—Santa Barbara Cottage Hospital—Central Plant Improvement Project, Santa Barbara, California"* (JPR Technical Services, Inc. [JPR]), and the *Review of Public Comments*, which are provided in Appendix F. The *Phase I Environmental Site Assessment (Phase I)* (LSA 2004), which is available at the City Community Development Department was also incorporated in the analysis. Additional information was obtained during an interview with Jerry Johnson, SBCH Environmental Safety Officer, on August 25, 2004.

9.1 HAZARDS - IMPACT SIGNIFICANCE GUIDELINES

In accordance with the City of Santa Barbara's environmental review guidelines, significant hazards and hazardous materials impacts may potentially result from:

- Siting of incompatible projects in close proximity to existing sources of safety risk, such as pipelines, industrial processes, railroads, etc.;
- Exposure of project occupants or construction workers to unremediated soil or groundwater contamination;
- Exposure of persons or the environment to hazardous substances due to improper use, storage, or disposal of hazardous materials;
- Siting of development in a high fire hazard area or beyond adequate emergency response time, with inadequate access or water pressure, otherwise in a manner that creates a fire hazard;
- Creation of an aircraft hazard or other substantial public safety hazard.

9.2 HAZARDS - METHODOLOGY

This EIR section analyzes the difference between the existing condition and the proposed project condition for hazards and hazardous materials. The analysis takes into consideration:

- Changes in the types or quantities of hazardous materials used and stored at the site
- Changes in the methods or quantities of hazardous waste disposal
- The potential for the proposed project to involve exposure of persons to existing contaminated soil or groundwater
- The potential for the proposed project to result in contaminated soil or groundwater or to facilitate the transport of contamination in the environment
- The potential for the proposed project to result in conditions hazardous to public health or the environment

The methods used to conduct the environmental analysis of hazards and hazardous materials are as follows:

- Evaluation of public comments received on the Initial Study/Notice of Preparation (IS/NOP). Issues raised in response to the IS/NOP with respect to hazards and hazardous materials included:
 - Potential past releases of hazardous substances in the project area, potential threats to human health or the environment as a result of hazardous substance releases to the environment; remediation activities; and oversight agencies.
 - The discharge by the hospital of untreated, potentially pathogen-laden effluent (sewage) into the City's sewer lines.
 - The potential for sewer main leakage in and around the hospital and the resulting potential exfiltration of untreated hospital sewage into surrounding areas.
 - The adequacy of the local sewer plant treatment process to treat sewage that may contain, for example, multi-drug resistant pathogens and chemical or biological waste prior to its discharge to the marine environment.
 - Potential increases in radioactive waste associated with the proposed hospital reconstruction.
 - Adequacy of existing hazardous and biohazardous use, storage, and handling procedures.
 - Provision of information on releases or accidents that have occurred during current operation of the hospital.
 - Identification of proposed routes that hazardous materials vehicles will use to access and depart from the site and evaluation of potential impacts of releases along those routes.
 - Provision of information related to state-of-the-art security measures that will be employed as part of the proposed project.
 - Evaluation of the safety of helicopters landing at approximately 60 feet in a densely populated residential area.
 - Provision of specific measures and construction techniques to protect the public from friable asbestos during the demolition and construction process.
 - Analysis of potential changes in fire response times and access. Evaluation of the adequacy of the existing hydrant systems with respect to volumes and pressure to serve the proposed project. (Chapter 12.0 of this DEIR addresses public service impacts.)
 - Provision of mitigation measures with respect to hazardous material routes, helicopter flight path, and underground and overhead utility lines.
- Preparation of a *Phase I Environmental Site Assessment* (available at the City Community Development Department), a historical research process to determine past and present uses of hazardous materials, and generation and disposal of hazardous waste at the site and surrounding area. The Phase I Site Assessment also provides information related to leaks and spills at the site and vicinity, and provides the status of remediation of contamination.

- Peer review and evaluation of the Central Plant Site Mitigation Plan prepared by Fugro West, Inc. (Fugro) This plan provides the procedures for handling soils contaminated by past leaking underground fuel storage tanks (LUSTs) at the former Central Services Plant location.

9.3 HAZARDS - REGULATORY FRAMEWORK

Hazardous materials and hazardous wastes are regulated by many State and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use. Certain laws and regulations are applicable to several hazards; an overview of each is provided below.

➤ City of Santa Barbara General Plan

The Seismic Safety-Safety Element lists recommendations for fire hazards, in High Fire Hazard Zones. The project site is not in a High Fire Hazard Zone. The Land Use Element indicates that industrial uses and medical facilities are essential for the proper functioning of the City and acknowledges the future expansion of SBCH. The project is consistent with the City General Plan.

➤ Municipal Code

The project is subject to the following chapters of the City of Santa Barbara Municipal Code with regard to hazards and hazardous materials:

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| Chapter 8.04 | The Uniform Fire Code (UFC). The UFC provides requirements for water supply, fire hydrants, building access, smoke detectors, and storage of explosive or combustible materials, and lists the requirements for each Fire Zone in the City. |
| Chapter 8.08 | Fire Hazards. This chapter describes the procedures for use and storage of flammable materials. |
| Chapter 8.16 | Fire Permits. This chapter requires fire permits for any land use other than single-family, two-family or apartment house. |
| Chapter 22.06 | Hazardous Waste Generators. This chapter lists the requirement for a business that generates hazardous waste to file a Business Plan (to include storage, disposal, and emergency response) and Waste Minimization Plan with the City. |
| Chapter 16.04.111 | Limitations on Hospital Waste. This chapter lists the restrictions on discharges from hospitals to the sewer. Pathological waste (solid waste generated in the rooms of patients who are isolated because of a suspected or diagnosed communicable waste) is not allowed. Requires hospitals to obtain an Industrial Waste Discharge Permit to discharge ground infectious waste (disposable hypodermic needles, syringes, and associated articles) to the sewer. |
| Chapter 22.05.020 | Decisions Shall be Consistent with County Hazardous Waste Management Plan. This chapter stipulates that decisions on projects made by the City will |

be consistent with the County's plan to the extent required by the provisions of California Health and Safety Code Section 25135.7.

➤ **Joint Commission on Accreditation of Healthcare Organizations (JCAHO)**

Hospital standards are set forth in the Comprehensive Accreditation Manual for Hospitals (CAMH) prepared by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), which is an independent, nonprofit organization and is the nation's predominant standards-setting and accrediting body in healthcare. JCAHO is the watchdog organization for healthcare providers and is governed by representatives of the American College of Surgeons, the American Dental Association, the American Hospital Association, the American Medical Association, an at-large nursing representative, and six public members. The CAMH core provides complete hospital accreditation information and information relevant to all hospital services. State and federal agencies recognize JCAHO as the accreditation organization for all hospitals; for instance, hospitals must comply with JCAHO standards to receive Medi-Cal and Medicare funding.

Hazards and Hazardous Materials are covered under JCAHO's Environment of Care (EC) Standards, which cover fire, security, emergency response, hazardous materials, medical waste, and hazardous waste. The standards applicable to hazards and hazardous materials for SBCH and the proposed project are listed below.

- EC 1.10: The organization manages safety risks
- EC 2.10: The organization manages its security risks
- EC 3.10: The organization manages its hazardous materials and waste risks
- EC 4.10: The organization addresses emergency management
- EC 5.10: The organization manages fire safety risks
- EC 4.20: The organization conducts drills regularly to test emergency management
- EC 5.30: The organization conducts fire drills regularly
- EC 5.40: The organization maintains fire-safety equipment and building features

Hospitals receive surprise JCAHO inspections every 18 months to 3 years. The *2003 Quality Report* prepared by JCAHO (October 24, 2004) indicated that SBCH needed improvement in the areas of heart attack care and pneumonia care. Performance in all other areas evaluated was similar to other accredited organizations. The *2000 Performance Report* surveyed SBCH in several areas. For the Management of the Environment of Care, SBCH achieved acceptable compliance for Design of the Environment and Social Environment, and good compliance for Implementation of Safety Plans and Monitoring Safety Plans.

➤ **Office of Statewide Hospital Planning and Development (OSHPD)**

OSHPD serves as the building department for all hospitals and nursing homes in the State. Its primary goal in this regard is to ensure that patients in these facilities are safe in the event of an earthquake or other disaster and to ensure that the facilities remain functional after such an event in order to meet the needs of the community affected by the disaster.¹ This department

¹ www.oshpd.state.ca.us.

also provides the public with information on health facilities throughout the State, which includes financial reports, data on the use of services, and measures of the quality of care provided.

Licensed acute care hospital construction in California is regulated and permitted by OSHPD in accordance with California Code of Regulations, Title 24 (California Building Standards Code) which consists of 11 parts, including the California Building Code, California Fire Code, and California Administrative Code. Specific Topics related to hazards addressed in these Codes are fire and life safety, underground and aboveground storage tanks, fire prevention, and testing inspection and observation.

➤ **Medical Waste Regulations**

The State Medical Waste Management Act (MWMA) (22 CCR Sections 65600–65628) provides for regulation of medical waste generators, haulers, and treatment facilities. This act repealed earlier State laws under which infectious waste was regulated as a subclass of hazardous waste. The MWMA defines medical waste as all of the following:

- Biohazardous waste, or “sharps” waste;
- Waste that is generated or produced as a result of the diagnosis, treatment, or immunization of human beings or animals, in related research, in the production or testing of biologicals, or in the accumulation of properly contained home-generated “sharps” waste;
- Trauma scene waste contaminated with human blood or other fluids, produced by an accident or illness.

Medical waste that contains infectious agents is considered biohazardous. Biohazardous waste includes any of the following:

- Laboratory waste, including human or animal specimen cultures, cultures and stocks of infectious agents, and wastes produced from microbial cultures;
- Human surgery specimens or tissues, animal carcasses, or bodily materials suspected of being contaminated with infectious agents known to be contagious to humans;
- Wastes (including containers and equipment) containing blood or fluid blood products.

Under MWMA, large quantity medical waste generators (LQGs) are those facilities that generate 200 pounds or more of medical waste in any month of a 12-month period. LQGs must register with the local enforcement agency (for Santa Barbara County: the State Department of Health Services) and must renew the registration every year. The LQG must also file a Medical Waste Management Plan with the enforcement agency.

SBCH is an LQG with respect to medical waste and, as such, is subject to MWMA requirements.

➤ **Hazardous Materials Regulations**

The State Waters Bill (AB 2185, et al.) requires businesses that utilize hazardous materials above certain thresholds to prepare on-site “business plans” for possible emergencies involving those materials and to provide copies of the plans to local emergency response agencies. The Waters Bill requires an administering agency to oversee hazardous materials and waste laws. The Certified Unified Program Agency (CUPA) implements program elements either directly

or in coordination with affiliated Participating Agencies (PA). The County of Santa Barbara Fire Department Hazardous Materials Unit (HMU) is the CUPA for businesses within the City of Santa Barbara, including SBCH.

Businesses that utilize hazardous materials are subject to Emergency Planning and Community Right-to-Know requirements as set forth in Title III of the Superfund Amendments and Reauthorization Act (SARA) and the California Waters Bill. These regulations require worker notification of hazardous substances in the workplace. SBCH is subject to these requirements.

➤ **Hazardous Waste Regulations**

Federal and California laws provide for “cradle to grave” regulation of hazardous wastes, as explained in *Hazardous Materials Program Commentary: California* (Touchstone Environmental, Inc., 2001) and summarized in the subsequent regulations paragraphs. The federal hazardous waste law is known as the Resource Conservation and Recovery Act of 1976 (RCRA) (40 CFR 240 et seq.). California has merged its RCRA authority into ongoing implementation of the State Hazardous Waste Control Law (HWCL), which was initially adopted in 1972 (22 CCR sec 66260.1 et seq.).

The Environmental Protection Agency (EPA) has primary responsibility for implementing RCRA, and the California Department of Toxic Substances Control (DTSC) is the State’s lead agency in implementing HWCL and RCRA provisions. California allows county health departments and other local agencies to implement certain HWCL provisions regulating hazardous waste generators under terms of Memoranda of Understanding (MOUs) with DTSC.

All RCRA-regulated and California-regulated hazardous waste must be recorded on hazardous waste manifests, with copies sent to DTSC. The manifest is a way of tracking hazardous waste from its inception to its disposal. SBCH is an LQG with respect to hazardous waste and is subject to these requirements for disposal and transport of hazardous waste.

The City of Santa Barbara Fire Department provides emergency response for spills of hazardous materials or waste and conducts inspections with regard to storage of these substances. Oversight of remediation of soil and groundwater contamination is the responsibility of the County Fire Department, Hazardous Materials Unit, the Local Enforcement Agency for State regulations.

➤ **Underground and Aboveground Storage Tank Regulations**

The federal underground storage tank (UST) law (40 CFR Section 6991 et seq.) was adopted in 1984 in response to serious groundwater contamination incidents arising from leaking USTs in the early 1980s. The promulgated standards apply to UST construction, installation, and removal and require the registration and monitoring of USTs. They were adopted as part of the Hazardous and Solid Waste Amendments (HSWA) to RCRA.

The federal Underground Storage Tank (UST) law provides for states to design UST regulatory programs that are no less environmentally protective than the federal program and to apply to the EPA for approval to implement the programs. The State UST law (“Sher Bill”) (23 CCR Section 2610 et seq.) was originally adopted in 1983 and has been amended several times to conform to evolving federal standards and to include some provisions that are stricter and/or more extensive than those in the federal UST law.

In California, UST regulation is administered by three levels of agencies: State, regional, and local. Statewide standards for UST registration, construction, and operation are developed by the State Water Resources Control Board (SWRCB). The State Board's nine subsidiary Regional Water Quality Control Boards (RWQCBs) are primarily responsible for determining cleanup procedures and standards for leaking USTs, however, in the County of Santa Barbara, the HMU has assumed these responsibilities.

In 1989, California adopted the Aboveground Petroleum Storage Act (the AST Act [California Health & Safety Code Section 25270 et seq.]). The AST Act requires facility registration, Spill Prevention Control and Countermeasure (SPCC) plans and, in certain cases, groundwater monitoring. The State Board and Regional Boards implement these requirements.

The County HMU is the oversight agency for UST and AST installation and removal in the City of Santa Barbara. In addition, UST and AST installation at SBCH is subject to OSHPD review and approval.

➤ **Occupational Safety and Health Regulations**

The Occupational Safety and Health Act of 1970 (OSH Act) (40 CFR 1902–1990) is the principal national law providing for worker safety and right to know. The broad policy goal of the act is “to assure so far as possible every working man and woman in the Nation a safe and healthful working environment.” It is implemented by the U.S. Occupational Safety and Health Administration (OSHA), whose responsibilities include developing and promulgating occupational safety and health standards and assuring that these standards are administered and enforced nationwide.

The federal OSH Act allows states to administer OSHA requirements after submitting a State plan. Cal/OSHA administers OSHA standards applicable to private employers within the State, along with additional authority provided by the California Occupational Safety and Health Act of 1973 (State OSH Act) (8 CCR secs. 330-8618). These regulations are applicable to construction workers and hospital employees at SBCH. Complaints regarding health and safety issues at SBCH would be investigated by Cal/OSHA.

➤ **Air Quality Regulations**

The federal Clean Air Act of 1970 (CAA) (40 CFR 50-95, 1400) creates a comprehensive national framework for maintaining and enhancing air quality. Title III of CAA defines hazardous air pollutants (HAPs), provides measures for their control, and establishes the Accidental Release Prevention (ARP) program. The ARP program requires preparation of a Risk Management and Prevention Program to identify and reduce the risk of acutely hazardous materials accidents capable of producing off-site exposures. These requirements are applicable to businesses that store and use large quantities of acutely hazardous materials.

SBCH maintains one acutely hazardous material on site (ethylene oxide), which is used for equipment sterilization. However, this material is stored in small quantities, below the threshold of the RMPP requirement.

California has integrated CAA requirements into its own comprehensive air quality control program. The California Air Resources Board (CARB) has statewide responsibility for administering federal and State requirements. Thirty-five Air Pollution Control Districts

(APCDs) and Air Quality Management Districts (AQMDs) issue local rules, regulations, and permits for stationary sources.

The Santa Barbara County Air Pollution Control District (SBCAPCD) is the enforcement agency for the project area. SBCAPCD oversees permits for SBCH's boilers and for the ethylene oxide sterilizer unit (see Phase I Environmental Site Assessment, Available at the City Community Development Department). In addition, SBCAPCD requires notification and submittal of an *Asbestos Demolition and Renovation Compliance Checklist* prior to demolition of buildings within its jurisdiction.

➤ **Asbestos-Containing Materials**

Asbestos-containing materials (ACM) products presently banned are corrugated paper, rollboard, commercial and specialty paper, flooring felt, and new uses of asbestos. Revisions to regulations issued by OSHA (June 30, 1995) require that all thermal system insulation, surfacing materials, and resilient flooring materials installed prior to 1981 be considered "presumed" asbestos-containing materials (PACM) and treated accordingly. In order to rebut the designation as PACM, OSHA requires that these materials be surveyed, sampled, and assessed in accordance with 40 CFR 763 (Asbestos Hazard Emergency Response Act—AHERA).

All asbestos shall be removed from structures and disposed of in accordance with local, State, and federal regulations prior to renovation or demolition activities that would affect structures containing asbestos. Release of asbestos into the environment is a violation of several laws, including OSHA, RCRA, the CAA, and the Clean Water Act (CWA).

The SBCAPCD and the County of Santa Barbara Public Health Department are the enforcement agencies for the project area.

➤ **Lead**

Lead has been used in commercial, residential, roadway, and ceramic paint products; in electric batteries and other devices; as a gasoline additive; for weighting, in gunshot; and for other purposes. It is recognized as toxic to human health and the environment and is widely regulated in the United States. Buildings constructed prior to 1978 are presumed to contain lead-based paint (LBP) unless proven otherwise, although buildings constructed after 1978 may also contain LBP. Lead is regulated as a "criteria" pollutant under the CAA, which has led to its elimination from automotive fuels. Aerially deposited lead from past use of leaded fuels is a concern in unpaved areas adjacent to roadways. Lead is also regulated as a toxic pollutant under the CWA and the Porter-Cologne Water Quality Control Act as well as under the federal and California safe drinking water acts.

All LBP above regulatory thresholds shall be removed from structures and disposed of in accordance with local, State, and federal regulations prior to renovation or demolition activities that would affect structures that contain LBP. Release of LBP into the environment is a violation of several laws including OSHA, RCRA, the CAA, and the CWA.

The Santa Barbara Air Pollution Control District and the County of Santa Barbara Public Health Department are the enforcement agencies for the project area.

➤ **Water Quality Regulations**

The federal CWA (40 CFR 122–125, 130–131, 401–471) provides the basic national framework for water pollution control and water quality management in the nation, which includes the National Pollutant Discharge Elimination System (NPDES) permit program. The EPA allows states to create planning and permit programs that are no less environmentally protective than the federal program. California’s Porter-Cologne Water Quality Act (23 CCR Sections 2200, 2591–2592, and 2594) generally satisfies CWA standards protecting surface waters, with additional State controls over both surface water and groundwater.

The City of Santa Barbara and the Central Coast Regional Water Quality Control Board (RWQCB) are the local enforcement agencies.

➤ **Sewage Hazards**

Municipal sewage is subject to State and federal treatment standards. Refer to the discussion under the Project Long-Term Sewage Hazards section in this Chapter.

➤ **Public Security**

Public security for hospitals is subject to JCAHO’s Environment of Care (EC) Standards (refer to the discussion above). For police protection services, refer to Chapter 12.0, Public Services and Utilities.

➤ **Aircraft Safety Regulations**

As required by the California Public Utilities Code, the Airport Land Use Commission (ALUC) must review all helipad proposals for the County in which a helipad is proposed. The Santa Barbara County Association of Governments (SBCAG) serves as the ALUC for the County of Santa Barbara. Emergency aircraft flights for medical purposes are exempt from local ordinances that restrict the departure or arrival of aircraft based upon the aircraft’s noise level or that restrict the operation of certain types of aircraft (CPUC sec. 21662.4).

The basic requirements of a hospital heliport include: a final approach and takeoff area (FATO), a safety area having a width equal to one-third the rotor diameter of the design helicopter, but not less than 10 feet surrounding the FATO, a touchdown and lift-off area (TLOF) within the FATO of at least 40 feet, perimeter markings of paint or preformed material, perimeter lights, and a wind direction indicator.¹ The TLOF of a rooftop heliport should be elevated above the level of any obstacle in the FATO. A warning sign alerting pilots to the presence of a Magnetic Resonance Imager (MRI) is recommended since the MRI may interfere with helicopter navigational systems.¹

➤ **Fire Hazards**

Regulations applicable to fire hazards and fire protection are discussed in Chapter 12.0, Public Services and Utilities.

¹ Federal Aviation Administration. Advisory Circular, 150/5390-2A, January 20, 1994.

9.4 HAZARDS - EXISTING SETTING

This section describes the environmental setting of the project site and the project vicinity with respect to hazards and hazardous materials.

9.4.1 SETTING - PROJECT SITE CONDITIONS

➤ Emergency Management Manual (Existing Conditions)

The Emergency Management Manual of Santa Barbara Cottage Hospital (SBCH) is designed to manage the consequences of natural disasters and other emergency situations that could disrupt the hospital's ability to provide care and treatment. The manual identifies specific procedures to mitigate, prepare for, respond to, and recover from emergencies. The plan addresses the initial impact a disaster may have on the hospital as well as methods of sustaining operation and recovery with the goal of restoring the hospital to the same or better physical condition that existed prior to the disaster.

The hospital's *Emergency Management Manual* contains Response Plans to address emergencies such as abductions (minors and infants), abusive/assaultive behavior, assault with weapons/hostage situations, bomb threats, fire, and spills/releases of hazardous materials. A Decontamination Plan is included to deal with toxic clouds and water system failures or disruptions. Other events such as bioterrorism, civil disturbance, earthquake, evacuation, flood, radiation exposure, and search and rescue are also addressed in the plan.

➤ Medical Waste (Existing Conditions)

SBCH generates five types of Regulated Medical Waste. SBCH does not generate radioactive waste. "Red Bag" biohazardous waste consists of waste that may be contaminated with body fluids of the patients. This includes tubes, gauze, and bandages. This waste is placed in red bag-lined collection containers located inside waste-holding closets. The red collection containers are picked up once a day by personnel with the Environmental Services Department and are manually transported to the waste holding area at the Central Services Plant. Red Bag waste is placed into and treated in a retort sterilizer (steam sterilizer) located at the Central Services Plant. Once sterilized by steam, the Red Bag waste is processed (landfilled) as general (solid) waste. The hospital generates approximately 1,200 pounds of Red Bag waste per week.¹

"Sharps" (needles and syringes) are deposited into special receptacles in patient rooms and in waste holding closets and transferred to the waste holding area. Stericycle, Inc. collects, sterilizes, and grinds this waste at its facility. After sterilization, the sharps are processed as general waste.

Chemotherapy waste (including needles and syringes) is deposited into yellow receptacles in waste-holding closets. The collection containers are held in the waste holding area for pickup. This waste is incinerated at an out-of-State facility. SBCH generates approximately 17 pounds of chemotherapy waste per month.

¹ Cini-Little Schachinger. April 9, 2004. Solid Waste Management Plan, Santa Barbara Cottage Hospital- Replacement Hospital Project, Waste Management and Reduction Strategies.

Pharmaceutical waste is deposited in labeled containers in the pharmacy and in waste-holding closets. The collection containers are held in the waste holding area for pickup. This waste is incinerated at an out-of-State facility. SBCH generates approximately 250 pounds of pharmaceutical waste per month.

Pathological waste (tissue, body parts) is held in special containers in the generating department until pickup by the waste-hauling contractor. This waste is incinerated at an out-of-State facility. SBCH generates approximately 508 pounds of pathological waste per month.

➤ **Hazardous Materials and Hazardous Waste (Existing Conditions)**

Hazardous materials are used in medical practices and for regular maintenance practices on site by the existing hospital facility. Such materials and wastes are subject to extensive governmental regulation for proper handling, transport, storage, and disposal. SBCH currently has materials and waste management and reduction strategies in place, including a program for the collection and proper disposal of medical and biohazardous waste and materials. These strategies are documented in the Waste Minimization Plan filed with the City, and the Hazardous Materials and Waste Control Plan subject to JCAHO inspection.

Cleaning chemicals are maintained in storage rooms in the hospital facilities for use by the Environmental Services Staff. Paints and fuels are stored at the Central Services Plant.

Bulk laboratory chemicals are stored in a special storeroom in the Clinical Laboratory. The laboratory generates the largest amount of hazardous waste: four 55-gallon drums of flammable materials per month. Petroleum products, paints, and associated solvents are stored in special lockers at the Central Services Plant. Other hazardous wastes (batteries and flammable liquids and solids) are currently held in the generating department until processed or picked up by the appropriate waste disposal contractor.

An ethylene oxide gas oxidizer for sterilization of equipment is located in the hospital basement. This unit is permitted by the SBAPCD.

Existing Central Services Plant. The Central Services Plant is the source for all utilities and maintenance for the hospital. It houses the retort sterilizer, paint shop, carpenter shop, medical waste holding area, two boilers, two emergency generators, aboveground liquid oxygen tanks, aboveground water tanks, underground salt tanks for water softening, and diesel fuel USTs for the emergency generator. Hazardous materials associated with the Central Plant and associated permits are listed below.

- Spray-paint booth. Santa Barbara APCD Permit.
- Two 10,000-gallon diesel fuel USTs for the two emergency generators. One aboveground diesel fuel “day” tank for the generators. County HMU permit.
- Two natural gas boilers. Provide steam for retort sterilizer and for heating. Santa Barbara APCD Permit.
- Used chemicals (including batteries) storage locker.
- Paint and water-treatment chemicals (for air conditioning system) storage locker.
- Landscape maintenance storage room. This room contains gardening equipment, pesticides, and fertilizers, and small amounts of gasoline for use in lawnmowers, etc.

Former Central Services Plant (2315 Bath Street). An 8,000-gallon UST and a 2,000-gallon UST were removed from the former Central Services Plant in 1987 when the plant was moved to its current location. Contaminated soil (200–400 cubic yards) was removed from the site and additional site investigation and groundwater monitoring was required by the Hazardous Materials Unit of the County of Santa Barbara Fire Department’s Protection Services Division. A remedial action plan was approved for the site and implemented. The County HMU approved completion of site investigation and remedial action in March 1995 with two conditions:

1. “Due to structural encumbrances, approximately 450 cubic yards of contaminated soil is left-in-place at the above referenced site.
2. If the present or proposed use of the site changes, it is the property owner’s responsibility to promptly notify this agency.”

Fugro prepared a Site Mitigation Plan (June 2003) for the handling of soil at the Central Plant. Fugro made several recommendations, including submittal of the Site Mitigation Plan to the County’s Leaking Underground Fuel Tank Program for review and approval as part of the permitting process for the project.

SBCH Buildings. Asbestos-containing materials (ACM) are located within the hospital and have mostly been identified on pipe insulation elbows and in spray-on fireproofing. SBCH has an Asbestos Management Plan in place, which requires an annual inspection. Refer to Project Construction Impacts for the discussion regarding ACM handling and disposal procedures.

There is a potential that lead-based paints (LBP) were used in structures constructed prior to 1978 in the project area. Refer to Project Construction Impacts for the discussion regarding LBP handling and disposal.

SBCH staff indicated that all polychlorinated biphenyls (PCBs) identified in light ballasts and transformers on the SBCH property have been removed and disposed of properly.¹ Refer to Project Construction Impacts for the discussion regarding PCBs handling and disposal.

➤ **Sewage (Existing Conditions)**

Sewage from the hospital is transported via the City’s sewer system for treatment at the City of Santa Barbara El Estero wastewater treatment plant. Hospital discharge to the sewer is regulated under a local Industrial Waste Water Discharge Permit from the City of Santa Barbara Public Works Department to control the level of conventional pollutants in wastewater discharge. The City received public comments in response to the NOP/Initial Study for the proposed project EIR regarding the potential risk to the environment and public health from sewage discharged by SBCH. These public comments and concerns are addressed in Section 9.6 of this chapter.

➤ **Public Security (Existing Conditions)**

SBCH is subject to State design and operational regulations regarding public security. Existing security measures include intercom systems, secured areas requiring cards for entry, surveillance cameras, and security patrols.

➤ **Aircraft Safety (Existing Conditions)**

SBCH does not currently maintain a heliport. Trauma cases are transported by ambulance to and from the Santa Barbara Airport and other locations.

➤ **Fire Hazards (Existing Conditions)**

The hospital is not located in a City-designated high fire hazard area. Refer to Section 4.10, Public Services, for a discussion of fire services and emergency response times. As part of its Emergency Management Plan requirements, the hospital conducts regular emergency and evacuation planning and training. Hospital-wide disaster drills are conducted two times per year. Fire drills are conducted quarterly. A smoke or heat detector is located in each room of the hospital. Chemical “ABC” fire extinguishers are located throughout the hospital.

9.4.2 EXISTING SETTING - SURROUNDING CONDITIONS

➤ **Hazardous Materials and Waste (Surrounding Conditions)**

Land uses adjacent to the hospital consist of single- and multi-family dwellings and medical offices. Residential properties are expected to utilize small amounts household hazardous materials such as cleaners and paints. The City has a household hazardous waste program for disposal of these items. Medical offices utilize hazardous materials and create hazardous waste similar to that used and produced by the hospital but in smaller quantities. The Phase I Initial Site Assessment (available at the City Community Development Department) identified several hazardous waste generators and a few past hazardous materials spills in the vicinity of the hospital. In addition to the past leaking underground fuel storage tank (LUST) at the former Central Services Plant at the hospital, there are three other LUSTs with active cases in the vicinity of the hospital. Hazardous materials/waste sites in the vicinity of the project site, including the SBCH site, are summarized in the Phase I Environmental Site Assessment

Records Review at County HMU. As part of the Phase I Initial Site Assessment, LSA reviewed records at the County HMU office in Buellton regarding hazardous materials/waste records for SBCH and for the LUST cases found in the government database. The purpose of this search was to determine the most current status of regulatory review/actions for SBCH and the surrounding properties. A summary of the status of the LUST sites is provided in Table 9.A. Pertinent copies of the LUST records are provided in Appendix D of the Phase I Initial Site Assessment (available at the City Community Development Department).

The LUST reported at 2315 Bath Street (location of former Central Services Plant) in the government database could not be verified during review of HMU records. SBCH staff had no knowledge of this incident and indicated that no leaks have occurred at the present Central Services Plant. Refer to the Project Construction Impacts section for a discussion of mitigation measures in the event of discovery of unknown substances or potential contaminated soils at the present Central Services Plant.

TABLE 9.A: HAZARDOUS MATERIALS/WASTE SITES IN THE VICINITY OF SBCH

Address and Distance from Project Site	Status
Cottage Hospital (Site)	<ul style="list-style-type: none"> The Central Services Plant maintains two active USTs on site. They are in compliance with State requirements as indicated by annual monitoring and certification testing conducted on February 4, 2004. No violations were found. The HMU had no records on the LUST reported in the database in 2003.
Santa Barbara American Fuel & Gas 2234 De La Vina Street (1/8-1/4 mile)	<ul style="list-style-type: none"> This service station is active. The records indicate that groundwater remediation is in progress. Groundwater monitoring wells were installed in February 2004. A Downgradient Assessment pilot test was scheduled for March 2004. Groundwater sampling was scheduled for July 2004. No sampling results were available. More recent information was not available.
Mobil Oil No. 11-KLC 402 Mission Street West (1/4-1/2 mile)	<ul style="list-style-type: none"> This service station is active. Due to high contaminant levels in five groundwater monitoring wells, HMU required aggressive cleanup to be commenced (November 19, 2002). An October 2, 2003, HMU progress report summary indicated that aggressive treatment still was needed and that contaminant levels appear to be going down. More recent information was not available.
Lewis Family Trust 121 Mission Street West (1/4-1/2 mile)	<ul style="list-style-type: none"> This property is now operated by Instant Sign Company. The RWQCB concurred with case closure on May 23, 2000. HMU signed off on case closure on June 9, 2000.

➤ **Sewage Hazards (Surrounding Conditions)**

Approximately 24,000 properties (households, business, and other land uses) discharge sewage to the local sewer system and the El Estero wastewater treatment plant, of which 84 percent are residential and fewer than 1 percent are industrial. The El Estero plant is mandated to meet both federal and State monitoring and discharge requirements, which are overseen by the Central Coast RWQCB. More stringent requirements with regard to pathogen content were imposed on El Estero by the State in 1999, and the treatment facility is mandated to comply with the strictest pathogen standards in the State for secondary treatment and deep water ocean discharge.¹

➤ **Public Security (Surrounding Conditions)**

Residences in the vicinity of the hospital may utilize home alarm systems. It is expected that alarm systems are present at the medical offices to protect drugs and equipment.

➤ **Fire Hazards (Surrounding Conditions)**

The surrounding area is not located in a City-designated High Fire Hazard Area. Refer to Chapter 12.0, Public Services, for a discussion of fire and emergency services and response times.

¹ Rebecca Bjork, City of Santa Barbara Water Resources Supervisor, e-mail correspondence, October 29, 2003.

9.5 HAZARDS - PROJECT FEATURES

PF 9-1 Hazardous Materials and Waste Control Program. SBCH proposes to continue operation of the existing handling, storage, and disposal procedures for hazardous materials and waste per regulatory requirements.

PF 9-2 Aircraft Safety. SBCH has identified helicopter procedures and flight path routes. Helicopters would be used to transport trauma cases to the hospital and are anticipated to be used on average about two times per week. Under normal weather conditions, the helicopter would follow a flight path along U.S. 101 and would make a direct approach toward the hospital after turning near the intersection of U.S. 101 and Pueblo Street. Departures would follow the same path as approaches. Under windy conditions, after turning toward the hospital, the helicopter would approach the helipad by making a gradual loop to the east prior to turning west for final approach and touchdown into the prevailing west wind. Departures in windy conditions could require direct climb and vertical takeoff over the helipad and then depart directly toward the freeway.

PF 9-3 Upgraded Security System. Upgraded on-site security equipment would be implemented as part of the proposed project. The proposed Integrated Security System includes the following components:¹

- A. *A closed-circuit television system (CCTV)* would be installed in the hospital buildings. The CCTV system will consist of a series of cameras strategically located in areas to capture video scenes interconnected to a host system for viewing and recording.
- B. *An Access Control and Alarm Monitoring System* would be incorporated to limit the dispersal of door lock keys and the management of the keys to assignees and to provide an automatic method for hospital staff movement without supervision by the use of employee cards fitted with electronics to gain entrance through locked portals.
- C. *An Infant Abduction Prevention System* would be incorporated to allow private conversation between the master station and intercom stations located at specific doors or vehicle entries. The identity of the person wishing to enter can be acknowledged from the master station.
- D. *An Emergency Intercom System* with two-way communication would be installed throughout the hospital buildings. The system would act independently from other systems to alert security of an impending emergency such as personal assault or suspicious activities.
- E. *A Central Monitoring Station (CMS)* would be the center of operation for the security system and would be staffed 24 hours per day/7 days per week. The CMS would provide proper first response according to established protocols.
- F. *Outside Access Control and Lighting.* Outside doors leading to the hospital will be provided with access control as described above, lighted and monitored by security officers.

¹ Schimer Engineering Corporation (SEC), SBCH Physical Security Program Study.

The Physical Security Program Study will be continuously refined prior to and during construction in order to ensure that existing security systems are minimally interrupted and that adequate measures are taken to mitigate for any disruption of current security systems.

9.6 HAZARDS - LONG-TERM IMPACTS

Long-term impacts are those that could occur once the project is completed and in operation. Significant long-term impacts would pertain to substantial changes in the types and quantities of hazardous materials generated and disposed of or the creation of new hazards. This section analyzes potential project-specific impacts, impacts of the Specific Plan, and cumulative impacts that could occur from past, present, and reasonably foreseeable future projects within the City of Santa Barbara.

9.6.1 HAZARDS - PROJECT LONG-TERM IMPACTS

➤ Hazardous Waste and Materials Impacts (Project Long-Term)

Presently, hazardous waste is held in each generating department (e.g., Clinical Laboratory, Central Services Plant) until it is collected by the disposal contractor, as described previously. The proposed project includes the designation of a Hazardous Waste Accumulation Area adjacent to the Soiled Dock platform at the proposed new loading dock. The purpose would be to create one controlled and contained area for the temporary storage of hazardous waste. By having hazardous waste stored in one place, the disposal contractor would not need to access the interior of the hospital, the space used for storage can be allocated for other uses, and waste hazards are restricted to one location accessible to emergency responders. In the Accumulation Area, hazardous waste would be kept in separate flammable and corrosive HazMat cabinets on the dock. Spill kits would be held adjacent to these cabinets. The design of this area includes a curb to form a secondary containment barrier for small spills and leaks. This area would be subject to City and County inspection and approval.

Local transportation routes for hazardous materials to SBCH and for hazardous waste from SBCH would change with implementation of the project. Currently, hazardous waste is picked up at the loading dock on Castillo Street. Under the proposed project, hazardous waste would be picked up at the new loading dock on Oak Park Lane. It is anticipated that there would be no additional changes to the transportation route, other than the pickup/drop-off point, due to the proposed closure of Castillo Street. Although minimal, this change may result in potential impact to local streets from leaks or spills during transport. For this reason, local hazardous materials/waste transportation routes would require approval by the City Fire Department to ensure that the City can adequately respond to potential leaks/spills during movement of these materials on City streets (Mitigation Measure HAZ-1, Local Transportation Route).

With the proposed project, the hospital building area would increase by 44 percent. The changes include resizing of patient rooms and hallways, an additional operating room, additional imaging suites (x-rays, CTs, MRIs, etc.), relocation and expansion of the Central Services Plant, expansion of the basement, and a new childcare center. However, hazardous materials use is mostly limited to the Clinical Laboratory and the Central Services Plant. Because the basic function of the hospital would not change, new types of hazardous materials used and hazardous waste created is not anticipated. Since the net number of patients served by

the proposed project would increase (fewer inpatients, but more outpatients), the quantities of hazardous materials used and hazardous waste created may increase. For example, the hospital would potentially increase laboratory services, which utilize solvents. The increase in hazardous materials and hazardous waste would potentially increase exposure of persons or the environment to hazardous substances.

As standard conditions of approval, SBCH would be required to update, and submit for approval per regulations, several plans with respect to hazardous materials and hazardous waste to prevent adverse impacts. These plans include:

- *Business Plan (County of Santa Barbara HMU requirement)*. SBCH would be required to update areas concerning use and storage of hazardous materials, and disposal of hazardous waste.
- *Emergency Management Manual (JCAHO requirement)*. SBCH would need to update this manual to address emergency response in case of potential hazardous material spills/releases in keeping with the new building designs.
- *Hazardous Materials and Waste Control Plan (JCAHO requirement)*. This plan would need to be updated in accordance with the new building designs and routing of hazardous waste.
- *Waste Minimization Plan (City of Santa Barbara, Fire Department requirement)*. This plan would need to be updated in accordance with the new building designs and handling of hazardous waste.

Because SBCH is subject to several agencies' reviews and approvals with respect to hazardous materials use and waste disposal, compliance with regulations is adequate to prevent adverse impacts, even if use and generation of these materials increases consistent with numbers of patients served. ***Therefore, implementation of PF 9-1 (Hazardous Materials and Waste Control Plan consistency), Mitigation Measures HAZ-1 (local transportation route) and HAZ-2 through HAZ-5 (required plan updates listed above) would reduce potential impacts regarding exposure of persons or the environment to hazardous substances due to improper use, storage, or disposal to less than significant levels. The change in transportation route would not result in an adverse effect on the environment since the City Fire Department would be able to require any modifications as needed.*** No physical effects on the environment would result from these mitigation measures to update the above plans.

➤ **Medical Waste Impacts (Project Long-Term)**

Because the quantity of medical waste could potentially increase with the proposed project, and the waste would be routed differently through SBCH, there is the potential for increased risk of exposure of persons to medical waste.

Under the proposed project, Red Bagged medical waste would be transported via manual carts to the retort sterilizer (steam sterilizer) at the Central Services Plant. After sterilization, the waste would be transported via carts to the general waste storage area at the loading dock. Other medical waste (chemotherapy waste, pharmaceutical waste, sharps, and pathological waste) would be transported via manual carts to the Hazardous Waste Accumulation Area at the new loading dock area. This waste is currently stored at the Central Services Plant. Therefore, the proposed project would change the internal routing of medical waste.

The project is expected to increase the amount of medical waste generated due to its ability to handle a larger volume of patients. Since the net number of patients would increase over time, medical waste from routine services such as injections and blood sampling would increase. However, medical waste handling and disposal methods would be similar to the existing condition in accordance with standard regulations for this waste. After on-site steam sterilization, this waste is disposed of with general (solid) waste. New building and facility room design is adequate to accommodate these procedures. Refer to Chapter 12.0, Public Services and Utilities, for an evaluation of general waste increases.

SBCH would be required to update its Medical Waste Management Plan in accordance with the new building designs and routing of medical waste and to take into consideration increases in medical waste (State DHS requirement). ***Compliance with Mitigation Measure HAZ-6 (Medical Waste Management Plan update and review would reduce potential impacts associated with medical waste to less than significant levels.*** No physical effects on the environment would result from updates to the Medical Waste Management Plan.

➤ **Sewage Hazard Impacts (Project Long-Term)**

No significant hazards impacts would result from project sewage collection and treatment. This section addresses the potential sewage hazards. Changes in sewage volumes are addressed in Chapter 12.0, Public Services and Utilities. As discussed in Chapter 12.0, the amount of sewage generated by the proposed project would decrease at full bed occupancy compared to the existing condition. Therefore, it is anticipated that the amount of “potentially hazardous” human waste generated would be less than the existing condition.

The City has received numerous comments from several individuals and organizations in response to the City’s IS/NOP regarding the potential risk to the environment and public health from sewage generated and discharged by SBCH. The comments related to sewage disposal are addressed in a review report prepared by JPR (Appendix F) and are summarized below.

- The discharge by the hospital of untreated, potentially pathogen-laden effluent (sewage) into the City’s sewer lines;
- Sewer main leakage in and around the hospital and the resulting potential exfiltration of untreated hospital sewage into surrounding areas;
- The adequacy of the local sewer plant treatment process to treat sewage that may contain, for example, multi-drug resistant pathogens and chemical or biological waste prior to its discharge to the marine environment.

An expert in the field, Charles Gerba, Ph.D, is a Professor of Microbiology at the University of Arizona. Dr. Gerba characterizes that sewage is a community issue rather than an issue for an individual contributor. There is no evidence to suggest that sewage discharged by outpatients into the community sewer is any more or less of a risk than inpatient sewage discharged into the hospital sewer. Likewise, the World Health Organization indicated that there is no evidence to suggest that hospital waste is more infective than residential waste.

Other public comments indicated that there is a history of failure of sewer mains and man-hole covers in the City of Santa Barbara, the failure of which has resulted in the release of raw sewage into the storm drain system, which impairs downstream surface waters. Sewage overflows do occur during the rainy season in many municipalities due to rainwater entering the

system through direct connections (drains or manhole covers) or by seeping in through cracks and joints causing sewer capacity to be exceeded.

City staff is unaware of groundwater contamination in Santa Barbara caused by sewer line exfiltration.¹ Exfiltration from a sewer pipe would subject exfiltrating wastes to an environment similar to that to which septic discharges from septic tanks are subjected. The primary forces on water in a sewer pipe will encourage it to flow down the pipe to the treatment plant, even if there are minor cracks or offset pipes.

In 2003, the City conducted a study to evaluate the potential for rainwater and groundwater to enter the City's sewer system through infiltration or inflow. The study found that less than 3 percent of rainwater penetrated the sewer system in Basin 14, which includes the SBCH area. No further evaluation was recommended for this basin. Additionally, the City has inspected sewer lines in the SBCH area within the last five years using a closed circuit TV camera. This inspection did not identify any areas needing repair. Further, the sewer collection system in the SBCH area is routinely cleaned twice a year.

Public comments raised a concern that the El Estero Waste Water Treatment Plant could not adequately treat sewage that may contain multi-resistant pathogens and/or chemical or biological waste, which may be discharged to the sewer system by facilities such as SBCH. Chemical and biological waste is not disposed of in the sewer system (refer to the discussion above). El Estero uses secondary bacteriological treatment, anaerobic digestion of sludge, chlorine disinfection, and chlorine neutralization prior to discharge of effluent approximately one and one-half miles offshore, consistent with federal and State requirements. More stringent requirements with regard to pathogen content were imposed on El Estero by the State in 1999, and the treatment facility is mandated to comply with the strictest pathogen standards in the State for secondary treatment and deep-water ocean discharge. El Estero has discharged effluent that, on average, is less than the limit by a factor of 100.² Extensive water quality testing (over 4,000 tests annually) is conducted before, during, and after treatment to confirm that the treated discharge meets all limits and does not affect human health or the marine environment.

Public comments referred to the biosolids (solid matter produced in the waste treatment process) produced by El Estero as Class B biosolids and noted that these biosolids could contribute to "Santa Barbara's high rate of beach closure" after land application of the biosolids as fertilizer. The City has stated that the biosolids produced by El Estero are further treated off-site into Class A biosolids and are subject to more stringent requirements stipulated in the U.S. Environmental Protection Agency's (EPA) biosolids rule (40 CFR Part 503). Class A biosolids must undergo treatment to reduce the concentrations of pathogens such that no additional restrictions or special handling precautions are required. The final composted biosolid material originating from El Estero contains trace levels of pollutants at or below regulatory thresholds and below levels in commercially available fertilizer.

For the reasons discussed above, the proposed project is not expected to result in the potential for significant handling, storage, and sewage hazards, and no mitigation is required.

¹ Rebecca Bjork, City of Santa Barbara Water Resources Supervisor, e-mail correspondence, October 29, 2003.

² Rebecca Bjork, City of Santa Barbara Water Resources Supervisor, e-mail correspondence, October 29, 2003.

On-Site Treatment Plant Option. Also in response to public comment received on the Notice of Preparation for the subject EIR, the City of Santa Barbara requested Fuscoe Engineering Inc. (FEI) to evaluate the potential for an on-site treatment system to handle the proposed sewage waste from the main hospital campus as an alternative to the use of the El Estero Treatment Plant for sewage treatment. The evaluation of such a system included an optimal location, spacing requirements, infrastructure improvements, cost, maintenance and personnel requirements, permits, effluent discharge options, sewer line implications and emergency bypass measures.

The optimal location for an on-site sewer treatment system would be located adjacent to southeastern wing of the proposed Patient Pavilion near the corner of Pueblo Street and Oak Park Lane due to the lowest point of the site and all lines could gravity flow to this location. All other site locations would require sewer lines operating with pump stations and these locations were eliminated from the evaluation due to this constraint. This location would also be located out of the floodplain due to the box culvert improvement along Oak Park Lane. The site location is designated as an existing park space available to the public and will remain so under the proposed plan.

Sewage treatment systems of this size for individual facilities are typically termed modular treatment systems because they are built with factory assembled modules (components) using compact designs to minimize space requirements while allowing for additional components to be added as needed (i.e. increased sewer flows).¹ The proposed system would require approximately 12,000 sq feet (0.28 acre) of the open space area which includes areas for the specific components of the modular system (pre-screening room, biological reactor tank, membrane filters, UV treatment zone) as well as areas for emergency storage of untreated sewage flows and storage areas of treated effluent.² Dependent upon spacing constraints, emergency storage areas could be designed underground assuming sufficient clearance from underground utilities. In order to collect and deliver flows to one location via gravity flow, a major re-working of the existing and proposed sewer piping collection system would be required. Under the current and proposed plans, the sewer laterals and main lines are segregated by city blocks and the system relies upon these lines to split the flows among the various streets. Collecting all sewage into one on-site main line would require significant re-design of the sewer infrastructure, both upstream and downstream due to concentrating flows into one main line.³

¹ The Membrane Bioreactor (MBR) treatment process consists of a suspended-growth biological reactor integrated with reinforced hollow fiber membranes. Membranes replace the solids separation function of conventional secondary clarifiers and sand filters. The durable ultrafiltration membrane's microscopic pore size ensures that no particulate matter greater than 0.1 micron is discharged in the effluent. The membranes are immersed directly in the aeration tank or one of its compartments. As the last step, the effluent is passed through a double-bank Ultra-Violet Unit as a final precaution to ensure disinfection of the pathogens in the effluent prior to discharging from the system. The MBR process combines the unit operations of aeration, secondary clarification and filtration into a single process, simplifying the system and greatly reducing space requirements.

² Herschel Winfrey. ZeeWeed® Wastewater Treatment System. Budget Proposal. Zenon Technologies. October 2004

³ Penfield & Smith. October 2004.

The approximate cost of the modular treatment system for treating all on-site sewage from the hospital is approximately \$520,000 based on a treatment rate of 150,000 gallons/day. This does not account for the cost of emergency storage tanks in the event the system malfunctions or reservoir tanks for holding treated effluent. Further studies are required to determine approximate sizes and costs for these components. In addition to the capital costs for installation of the treatment system, annual maintenance costs are projected at \$75,500 year plus the addition of a part-time certified plant operator (15 hours/week). These costs do not also account for the costs in designing the main sewer line to collect the flows on-site and deliver to the plant nor do they account for upsizing the downstream sewer line to handle the concentrated flows.

In addition, the Hospital would be required to obtain an individual point-source National Pollutant Discharge Elimination System (NPDES) permit to install and operate the plant and would be subject to all the permit conditions similar to the El Estero Treatment Plant. Permit compliance costs are not included in this evaluation and would require further study as part of a more detailed feasibility analysis.

The implementation of an on-site treatment system would still require the treated effluent to be discharged to the El Estero Treatment Plant. The effluent quantity would require upsizing the downstream sewer line serving this area to handle all the flows from the Hospital because under the existing sewer system, city blocks separate the confluence of sewage flows. One of the main advantages to an on-site system is the ability to recycle and reuse treated waste-waters for toilets, urinals, landscaping and irrigation. Each of these uses would require a separate reclaimed piping system to deliver the water to the designated facilities at a significant cost. These options also would require a large storage area (reservoir) during times when demand for the re-usable water is low (i.e., rain events) or design of a by-pass system to El Estero whenever reclaimed water demand drops below effluent generation rates. This issue would require further study in a more detailed feasibility analysis.

In summary, the use of an on-site modular treatment system with advanced membrane technology to treat sewage waste provides a high level of pathogen removal but also results in significant costs, space and sewer infrastructure improvements. In addition, the system would require additional resources for personnel, monitoring and maintenance for the day-to-day operations and NPDES permit conditions. Lastly, the issue of reclaiming a portion or all of this treated effluent for use on-site results in significant costs for the new reclaimed plumbing system to limit downstream discharges into El Estero. In conclusion, a detailed feasibility study would be required to refine the opportunities and constraints of the identified location as well as provide a more refined cost estimate for reservoir tank sizes, personnel costs, sewer infrastructure improvements, permit compliance, and effluent discharge fees or water re-use infrastructure improvements.

➤ **Public Security Impacts (Project Long-Term)**

Potential long-term public security risks from unauthorized access to hospital areas with the proposed project would be similar to the existing condition. Because the proposed project includes parking structures, there is the potential for crime to occur in these secluded areas.

The project features described in Section 9.5 would be implemented throughout the hospital as part of the proposed project. This would require retrofitting in areas that are not part of the proposed new construction. The security features would include the latest technology and

would include additional surveillance cameras and card readers for secured areas. The proposed project would enable security officers to visually monitor all ground-level exterior doors using surveillance cameras, which is not possible at the existing hospital. Since new facilities would replace existing facilities, it is anticipated that public security design/upgrades would result in improved security in the hospital buildings, a beneficial impact.

SBCH proposes to enhance existing hospital security as well as provide security to the proposed structures by implementing a comprehensive security system (PF 9-3). In order to address the potential for crime in secluded areas such as parking structures, SBCH would be required to implement security patrols around the hospital campus and in the structures. ***With incorporation of project features, Mitigation Measure HAZ-3 (Emergency Management Manual updates and review), and Mitigation Measure HAZ-7 (Security Patrols), potential public security impacts as a result of the proposed project would be less than significant.*** No physical effects on the environment would result from updates to the Emergency Management Manual or implementation of security patrols.

➤ **Aircraft Safety Impacts (Project Long-Term)**

The proposed project includes a helipad for the roof of the proposed new Diagnostic and Treatment Building. There would be a potential for helicopters to crash into properties within the flight path during flight operations. The SBCH estimates an average of two flights per week would occur (see Section 3.4.2 in Chapter 3.0); however, the number of flights per week could vary depending on the demand for emergency services.

Helicopters would follow a proposed flight path along U.S. 101 and make a direct approach toward the hospital after turning near U.S. 101's intersection with Pueblo Street. Departures would follow the same path as approaches. Under windy conditions, after turning toward the hospital, the helicopter would approach the helipad by making a gradual loop to the east prior to turning west for final approach and touchdown into the prevailing west wind. Departures in windy conditions could require direct climb and vertical takeoff over the helipad and then departure directly toward the freeway. Proposed helicopter flight paths are shown in Figure 3.6. Land uses adjacent to the proposed helipad location include medical offices and facilities (along Junipero Street, Bath Street, Pueblo Street, and Oak Park Lane). Single and multi-family residences are located within one block of the helipad. The proposed flight paths would cross over commercial and residential properties east of Oak Park Lane, north of Pueblo Avenue, and south of Junipero Street. To ensure flight and environmental safety in accordance with State and federal regulations, emergency response plans, helipad design, and flight paths would require approval by SBCAG. ***Compliance with PF 9-2 (helicopter procedures and flight paths) Mitigation Measure HAZ-8 (approval of helipad design plans, emergency response plans, and flight paths by SBCAG) would reduce aircraft safety impacts to less than significant levels. No physical effects on the environment would result from helipad plan approval by SBCAG.***

➤ **Fire Hazards Impacts (Project Long-Term)**

The new facilities would provide state-of-the art fire suppression equipment and building design in accordance with State SHPO requirements. The proposed project would be reviewed and approved by the City and County Fire Department for compliance with hazardous materials storage, fire suppression equipment, emergency response, and emergency access. Fire hazard

prevention would be addressed through compliance with local, State, and federal requirements. SBCH is required to review and update its Business Plan, Emergency Management Manual, and Hazardous Materials and Waste Control Plan to incorporate the design elements of the project. *With implementation of PF 12-2 (Upgraded Fire Protection Equipment), Mitigation Measures HAZ-3 (Emergency Management Manual updates) and HAZ-4 (Hazardous Materials and Waste Control Plan updates), potential fire hazard impacts would be less than significant.* No physical effects on the environment would result from updates to these plans.

9.6.2 HAZARD MITIGATION MEASURES (PROJECT LONG-TERM)

HAZ-1 Local Transportation Route. Prior to issuance of building permits for each construction phase, and prior to the issuance of certificates of occupancy, SBCH shall submit a plan for a proposed local transportation route for transport of hazardous materials and hazardous waste to the City of Santa Barbara Fire Department for review and approval.

HAZ-2 Business Plan. Prior to issuance of building permits for each construction phase, and prior to the issuance of certificates of occupancy, SBCH shall submit its updated Hazardous Materials Business Plan to the County of Santa Barbara Fire Department HMU for review and approval.

HAZ-3 Emergency Management Manual. Prior to issuance of building permits for each construction phase, and prior to the issuance of certificates of occupancy, SBCH shall update its Emergency Management Manual in accordance with the project design and Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards. The updated plan shall be subject to JCAHO review and approval.

HAZ-4 Hazardous Materials and Waste Control Plan. Prior to issuance of building permits for each construction, and prior to the issuance of certificates of occupancy, SBCH shall update its Hazardous Materials and Waste Control Plan in accordance with the project design and Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards. The updated plan shall be subject to JCAHO review and approval.

HAZ-5 Waste Minimization Plan. Prior to issuance of building permits for each construction phase, and prior to the issuance of certificates of occupancy, SBCH shall submit its updated Waste Minimization Plan to the City of Santa Barbara Fire Department for review and approval.

HAZ-6 Medical Waste Management Plan. Prior to issuance of building permits for each construction phase, and prior to the issuance of certificates of occupancy, SBCH shall update its Medical Waste Management Plan in accordance with State Department of Health Services (DHS) regulations. The updated Medical Waste Management Plan shall be subject to State DHS review and approval.

HAZ-7 Security Patrols. Prior to issuance of building permits for each construction phase and prior to issuance of certificates of occupancy, SBCH shall submit a security patrol plan to the City Fire and Police Departments for review and approval. The plan shall include patrols around the hospital campus and within the parking structures.

HAZ-8 Helipad. Prior to issuance of building permits for the proposed helipad in Phase II (SBCH Phase 4), SBCH shall submit the helipad design plans, emergency response plan, and

flight paths to the City Fire and Police Departments as well as the Santa Barbara County Association of Governments (SBCAG) for review. SBCH will document SBCAG's action in the application for a Heliport Approval Permit, which shall be submitted to Caltrans Division of Aeronautics. Caltrans will issue the permit once it reviews and approves the application. SBCH shall also submit a Notice of Landing Area Proposal to the FAA for review. Documentation of Caltrans approval shall be submitted to the City.

9.6.3 SPECIFIC PLAN LONG-TERM HAZARDS IMPACTS

This section analyzes on-site and off-site environmental impacts that could occur with future build out and operation of the Specific Plan (SP-8). Under the Specific Plan, the potential fourth nursing pavilion (100 beds) could be permitted for construction in place of existing buildings of the main hospital (Buildings K, I, E, etc.).

➤ Hazardous Materials and Waste Impacts (Specific Plan Long-Term)

The potential for persons or the environment to be exposed to hazardous substances due to improper use, storage, or disposal of hazardous materials as part of any potential future reconstruction allowed under the Specific Plan would be similar to that of the proposed project.

Potential future development allowed under the proposed Specific Plan could entail new construction of hospital facilities that would displace existing non-acute care hospital facilities proposed to be remodeled but not reconstructed as part of the proposed project. The potential future nursing pavilion would replace existing outpatient and inpatient buildings. Any future reconstruction would be required to comply with local, State, and federal regulations with respect to hazardous materials/waste. Similar to the proposed project, it is anticipated that the amount of hazardous materials used and hazardous waste generated would have a minor increase with Specific Plan build out because there would be an increase in the number of patients served, with an additional acute care nursing pavilion.

Similar to the proposed project, compliance with existing regulations would be considered adequate to prevent adverse impacts. *Therefore, implementation of Mitigation Measures HAZ-1 (local transportation routes) and HAZ-2 through HAZ-5 (required plan updates) would reduce potential impacts regarding exposure of persons or the environment to hazardous substances due to improper use, storage, or disposal, to less than significant levels.* No physical effects on the environment would result from transportation route updates or updates to the above plans.

➤ Medical Waste Impacts (Specific Plan Long-Term)

The quantity of medical waste is anticipated to incrementally increase under the proposed Specific Plan build out as compared to the proposed project due to potential for increase in acute care patients who would potentially require more treatment and generate more waste. The potential for the risk of exposure of persons to medical waste from routing of waste through the hospital would be similar to the proposed project's risk since it would involve construction of new facilities.

The addition of 100 acute-care beds under the proposed Specific Plan would not exceed SBCH's existing license for 456 beds. However, similar to the proposed project, the number of

outpatients could increase. *Similar to the proposed project, compliance with Mitigation Measure HAZ-6 (Medical Waste Management Plan update and review) would reduce potential impacts to less than significant levels with respect to handling of and increases in medical waste under the proposed Specific Plan.* No physical effects on the environment would result from updates to the Medical Waste Management Plan.

➤ **Sewage Hazard Impacts (Specific Plan Long-Term)**

Similar to the proposed project, potential future build out as allowed under the proposed Specific Plan would be required to comply with local, State, and federal regulations with respect to sewage hazards. An additional 100-bed facility under the SP-8 scenario would increase the total number of licensed beds to 437 (337 under the proposed project). The total of 437 would be slightly less than the existing capacity of 456 beds. *Therefore, it is anticipated that the amount of “potentially hazardous” human waste under the SP-8 build out when combined with the proposed hospital would be similar to the existing condition, and less than significant.* No mitigation is required.

➤ **Public Security Impacts (Specific Plan Long-Term)**

Potential long-term public security risks from unauthorized access to hospital areas under the proposed Specific Plan would be similar to the existing condition. As the proposed project is part of the proposed Specific Plan, the proposed parking structures could present opportunities for crime in these secluded areas.

It is expected that potential future development under the Specific Plan would implement the same project features proposed for the project, as they apply to the additional acute care facilities, resulting in improved security, a beneficial impact. *Similar to the proposed project, incorporation of project features, Mitigation Measure HAZ-3 (Emergency Management Manual updates and review), and Mitigation Measure HAZ-7 (Security Patrols), potential public security impacts under the proposed Specific Plan build out would be less than significant.* No physical effects on the environment would result from updates to the Emergency Management Manual.

➤ **Specific Plan Long-Term Fire Hazards**

Similar to the proposed project, the amount of hazardous materials or flammable materials required with build out as permitted under the proposed Specific Plan would be similar in scope to the current conditions, but could increase should the level of patients and operations increase. Additional fire hazards may also be created as a result of additional acute care facilities. Therefore, there is the potential for fire hazards to increase with implementation of the proposed Specific Plan.

For reasons outlined above in the project impacts discussion, any future development under the Specific Plan would be required to comply with local, State, and federal regulations with respect to fire hazards. *With implementation of Mitigation Measures HAZ-3 (Emergency Management Manual updates) and HAZ-4 (Hazardous Materials and Waste Control Plan updates), potential fire hazard impacts would be less than significant.* No physical effects on the environment would result from updates to these plans.

9.6.4 CUMULATIVE LONG-TERM HAZARDS IMPACTS

Impacts analyzed in this section are operational impacts that could occur on site or off site with implementation of the proposed project, future development under the Specific Plan, and any other reasonably foreseeable projects within the project vicinity. The cumulative study area for hazards and hazardous materials includes the area encompassed by the helicopter flight paths as shown in Figure 3.5. The specific cumulative projects under application for approval in the City of Santa Barbara are listed in Chapter 13.0, Table 13.M.

Past projects in the project vicinity reflect a continuation of the existing urban/suburban pattern of development, which has resulted in an increase in hazardous materials use and hazardous waste generation, spills/leaks, and disposal. The redevelopment of existing uses could result in increased hazards and hazardous materials in the project vicinity. However, due to problems with contaminated sites and public health and safety issues, and associated regulatory requirements and advances in technology, the potential for hazard at one property to affect an adjacent property has been reduced. Hazards and hazardous materials are heavily regulated, and procedures are in place for emergency reporting and response, and cleanup activities. Each new project that involves hazards and hazardous materials must comply with evolving local, State, and federal regulations to prevent adverse hazards and hazardous materials impacts.

➤ Hazardous Materials and Waste Impacts (Cumulative Long-Term)

Implementation of the proposed project and/or future development under the Specific Plan has the potential to cumulatively contribute to hazardous materials/waste impacts in the project vicinity because of the anticipated increase in use of hazardous materials, generation of hazardous waste, and changes to transfer areas from and to the hospital (Oak Park Lane versus Castillo Street). The mitigation measures required for the proposed project and future development under the Specific Plan to prevent adverse hazardous materials/waste impacts are standard regulatory requirements for hospitals tailored to the project description. Each new commercial/industrial development project in the hospital's vicinity would be subject to similar requirements. ***With implementation of Mitigation Measures HAZ-1 (local transportation route) and HAZ-2 through HAZ-5 (Business Plan, Emergency Management Manual, Hazardous Materials and Waste Control Plan, and Waste Minimization Plan updates), the proposed project's contribution to combined effects from improper use, storage, or disposal of hazardous substances, from past, present, and reasonably foreseeable future projects within the project vicinity would be less than significant.***

➤ Medical Waste Impacts (Cumulative Long-Term)

Implementation of the proposed project and/or future development under the Specific Plan has the potential to cumulatively contribute to medical waste impacts in the project vicinity because the amount of waste would increase, and the waste would be routed differently through SBCH. The mitigation measures required for the proposed project and future development under the Specific Plan to prevent adverse medical waste impacts are standard regulatory requirements for hospitals and other medical facilities. Each new medical development project in the hospital's vicinity would be subject to similar requirements. ***With implementation of Mitigation Measure HAZ-6 (Medical Waste Management Plan update and review), the proposed project's contribution to combined effects from medical waste within the project vicinity would be less than significant.***

➤ **Sewage Hazard Impacts (Cumulative Long-Term)**

The proposed project and future development under the Specific Plan would not result in new types of discharges to the sewer. (Refer to Chapter 12.0, Public Services and Utilities for a discussion of sewage capacities.) In addition, the amount of “potentially hazardous” human waste generated by the proposed project or the Specific Plan build out would be similar to the existing condition because the number of total beds would be slightly less than the number of existing licensed beds (assuming full occupancy as a worst-case scenario). ***Therefore, the proposed project’s contribution to combined sewage hazards effects from past, present, and reasonably foreseeable future projects within the project vicinity would be considered less than significant.***

➤ **Public Security Impacts (Cumulative Long-Term)**

Implementation of the proposed project and/or future development under the Specific Plan has the potential to cumulatively contribute to public security impacts in the project vicinity due to the addition of two new parking structures.

The land use or function of the site would not change. In fact, new development, such as the proposed project and future development under the Specific Plan, allow for the implementation of new technology with regard to public security, which provides an improved security condition, a beneficial effect. Compliance with State regulations for public security would be adequate to reduce potential security impacts in secluded areas to acceptable levels. ***With incorporation of project features and Mitigation Measures HAZ-3 (Emergency Management Manual updates and review) and HAZ-7 (security patrols), the proposed project’s contribution to combined public security effects from past, present, and reasonably foreseeable future projects within the project vicinity would be less than significant.***

➤ **Aircraft Safety Impacts (Cumulative Long-Term)**

Implementation of the proposed project has the potential to cumulatively contribute to aircraft safety impacts due to the potential for air traffic accidents. Marion Medical Center, Goleta Valley Cottage Hospital, and St. John’s Regional Medical Center receive patients by helicopter transport.¹

Aircraft operations are subject to strict regulations. The Airport Land Use Commission (ALUC) must approve all airports/helipads in order to approve flight paths and prevent air traffic accidents. The proposed SBCH helipad would be constructed and used for medical emergency purposes consistent with the needs of the community and the purpose of a community hospital. Because the surrounding land uses consist of medical offices and residential property, it is not anticipated that another helipad would be constructed in the SBCH vicinity that could combine with the proposed project to create additional cumulative safety effects on the cumulative study area. However, if it were constructed, any helipad and helicopter operations would be subject to ALUC review to determine potential conflicts with existing operations at other hospitals and other facilities. ***With implementation of Mitigation Measure HAZ-8 (approval of helipad design plans, emergency response plans, and flight paths by SBCAG), the proposed project’s contribution to combined aircraft safety effects from past, present, and reasonably foreseeable future projects within the project vicinity would be less than significant.***

¹ City of Santa Barbara, Planning Commission Staff Report, July 13, 2001.

➤ **Fire Hazards Impacts (Cumulative Long-Term)**

Similar to the proposed project and potential future redevelopment allowed under the proposed Specific Plan, all new development projects in the City of Santa Barbara are subject to fire hazard regulations with respect to hazardous materials storage, fire suppression equipment, emergency response, and emergency access. Each project is evaluated with regard to its ability to create fire danger in off-site properties. Improvements in building materials and design have reduced fire hazards impacts overall. *With implementation of Mitigation Measures HAZ-1 (local transportation route) and HAZ-2 (updated Hazardous Materials Business Plan), the proposed project's contribution to combined fire hazards effects from past, present, and reasonably foreseeable projects within the project vicinity would not be significant.*

9.7 HAZARDS - TEMPORARY CONSTRUCTION IMPACTS

9.7.1 PROJECT CONSTRUCTION HAZARDS IMPACTS

Temporary construction impacts are those that could potentially occur at some time during the proposed construction phases. Potential impacts from helicopter overflights are not an issue during construction as there are no helicopter operations in the existing condition.

Because construction will be phased over several years and the hospital will be in operation during that time, there is the potential for hazards and hazardous materials impacts due to changes in handling and transportation route, hazardous materials usage and hazardous waste disposal, routing of medical waste, disruption of public security, and increases in potential fire hazards. For this reason, SBCH would be required to prepare a comprehensive plan to address construction-related hazards for these areas. The plan must provide mechanisms to ensure appropriate hazardous materials/waste and medical waste routing and transportation, public security, and fire protection during each construction phase.

Mitigation Measure HAZ-9 (Construction Hazards Management Plan) would reduce potential hazards impacts during the construction period to less than significant levels. Implementation of Mitigation Measure HAZ-9 would require plan preparation and coordination with SBCH and construction personnel. No physical effects on the environment would result from plan preparation or personnel coordination.

➤ **Hazardous Materials and Waste Impacts (Project Construction)**

Because the proposed project would result in demolition and renovation of existing structures, equipment removal and relocation, and excavation of soils, there is a potential for: exposure of persons or the environment to hazardous substances due to improper use, storage, or disposal of hazardous materials, and exposure of proposed project occupants or construction workers to unremediated soil or groundwater contamination.

Construction of the proposed project would involve the demolition of certain structures, site clearing, excavation, and grading. Each of these proposed construction phases has the potential to release hazardous materials/waste such as asbestos, lead, PCBs, and pollutants associated with gasoline and diesel fuel. Impacts would be similar for each construction phase (I-IV). Asbestos, lead, and PCBs would be associated with existing structure demolition and renovation, while gasoline and diesel fuel constituents would be associated with construction

equipment used during site preparation and building construction, as well as equipment removal and relocation. In addition, routine use of hazardous materials such as fuels, paints, and solvents would be required during the construction phases.

Under the proposed project, the existing Central Services Plant would be moved to its former location. This would require removal of the existing USTs, relocation of the aboveground diesel fuel tank, and relocation of other associated equipment (e.g., generators and boilers). OSHPD and the County HMU have standard requirements and tests that must be conducted as part of equipment removal and installation activity.

The former Central Services Plant area has undergone contaminated soil removal, and a containment barrier has been placed above contaminated soils. There is a potential for contaminated soils above the containment barrier. Table 9.B shows that two LUSTs in the vicinity of the hospital have contaminated groundwater. Since groundwater flows from site to site, there is the potential for groundwater in the proposed construction areas to be contaminated as a result of nearby LUSTs.

Hazardous materials/waste use and disposal can be controlled during construction by compliance with standard procedures set forth in local, State, and federal regulations. For instance, the hospital is required to implement standard best management practices with regard to hazardous materials use during construction (Mitigation Measures HYD-9, 10, 12 and 13; Section 10.0, Hydrology and Water Quality). These mitigation measures require compliance with the *State General Permit for Storm Water Discharges Associated with Construction Activity* requirements and City Municipal Code requirements to prevent pollutants from entering the storm drain system. Prior to any demolition, the hospital must implement Mitigation Measures HAZ-10 (Asbestos-Containing Materials), HAZ-11 (Lead-Based Paint), and HAZ-12 (PCBs) to prevent any release of asbestos, lead, or PCBs into the environment. These hazardous substances can be easily released into the air (as airborne dust and particles) during demolition activities. State and federal regulations regarding these hazardous materials (OSHA, the CAA, California Health and Safety Code) require personal protective equipment for workers and containment of these substances to prevent exposure to employees and other people in the surrounding area (patients, hospital staff, residential neighbors, and medical office neighbors). There are also regulations in place to track these items for proper disposal as hazardous waste (refer to the Regulatory Framework section of this Chapter).

Implementation of the mitigation measures described above would reduce potential adverse impacts due to exposure of persons to known hazardous building materials to less than significant levels.

Equipment removal activities at the existing Central Services Plant and installation at the new proposed location must comply with Mitigation Measure HAZ-13 (Equipment Relocation).

Implementation of these measures would reduce potential adverse impacts due to exposure of persons to hazardous substances.

Any dewatering of groundwater must comply with Mitigation Measure HYD-11 (Hydrology and Water Quality). ***This mitigation measure requires compliance with RWQCB regulations with regard to dewatering and would prevent exposure to unremediated groundwater.***

Construction activities at the former Central Plant area must comply with Mitigation Measure HAZ-14 (Former Central Services Plant Site Mitigation Plan Requirements) for worker and environmental protection with regard to potentially contaminated soil. Mitigation Measure

HAZ-15 (Unknown Substances) is required to address unknown hazards that may be encountered on other areas of the site. *These mitigation measures would reduce potential adverse impacts due to exposure of persons or the environment to contaminated soil to less than significant.*

Because construction will be phased over several years SBCH would be required to address hazardous materials/waste routing and transportation for each construction phase. *Compliance with Mitigation Measure HAZ-9 (Construction Hazards Management Plan) would reduce potential impacts with respect to handling of hazardous materials/waste to less than significant levels.*

With implementation of the mitigation measures described above, potential impacts due to hazardous materials and hazardous waste would be reduced to less than significant levels. No physical effects on the environment would result from implementation of these measures because they are standard regulatory requirements to protect people and the environment from hazardous substances exposure.

➤ **Medical Waste Impacts (Project Construction)**

There is the potential for persons or the environment to be exposed to medical waste during construction of the project due to renovation and demolition activities that may interfere with medical waste handling and routing.

Because the new Central Services Plant and its Waste Accumulation Area would be constructed prior to demolition of the existing plant and medical waste storage area, SBCH would be able to establish medical waste routing prior to disruption of the existing route. Because construction will be phased out over multiple years, SBCH would be required to address routing of medical waste for the construction period. Compliance with Mitigation Measure HAZ-9 (Construction Hazards Management Plan) **would reduce potential impacts with respect to handling of medical waste to less than significant levels.** No physical effects on the environment would result from implementation of this plan.

➤ **Sewage Hazard Impacts (Project Construction)**

Sewage hazard impacts are not anticipated during the construction phases. As in the existing condition, during construction restroom facilities would be available for hospital workers and patients. Construction workers would utilize portable facilities that can either be pumped out by a vacuum truck or removed for sewage disposal into the sewer system or at the wastewater treatment plant. *Significant sewage hazards would not result during construction, and no mitigation is required.*

➤ **Public Security Impacts (Project Construction)**

There is the potential for public security impacts during construction of the proposed project due to the number of personnel required during construction activities, and demolition/renovation activities that might affect secured access areas.

Construction activity would involve numerous temporary workers who are not currently at SBCH. There is the potential for unauthorized individuals to access secured areas. Standard hospital procedures, such as required escorts in secure areas, would be required. Contractors would not be allowed to work in a secure area without supervision. Because the construction

period would last multiple years, SBCH would be required to implement public security measures in a comprehensive plan to be reviewed and approved by oversight agencies. ***Compliance with Mitigation Measure HAZ-9 (Construction Hazards Management Plan) would reduce potential public security impacts to less than significant levels.***

➤ **Fire Hazard Impacts (Project Construction)**

There is the potential for increased fire hazard impacts during construction of the proposed project due to the use of additional flammable materials, and relocation or disturbance of underground or aboveground utilities.

Construction activity would involve the use of flammable materials such as fuels and solvents in addition to materials that are used in the existing condition. As discussed above, SBCH is required to comply with standard best management practices regarding storage, use, and disposal of construction materials (Mitigation Measures HYD-9 and 10; Chapter 10.0, Hydrology and Water Quality). These mitigation measures would prevent adverse fire hazard impacts due to improper storage or use of flammable materials. A Construction Management Plan (CMP) is required to address construction traffic, parking, and access (Mitigation Measure TRF-8; Chapter 13.0, Transportation and Circulation). The CMP would be prepared to ensure adequate emergency vehicle access during construction phases. Because the construction period would last multiple years, and fire hazards can increase with the amount of activity and disturbance of structures and utilities, SBCH would be required to address fire hazard impacts and preventive measures in a comprehensive plan to be reviewed and approved by oversight agencies (Mitigation Measure HAZ-9, Construction Hazards Management Plan). ***With implementation of the mitigation measures listed above, fire hazard impacts would be reduced to less than significant levels during construction of the proposed project.*** No physical effects on the environment would result from implementation of these measures.

9.7.2 HAZARDS MITIGATION MEASURES (PROJECT CONSTRUCTION)

HAZ-9 Construction Hazards Management Plan. Prior to issuance of building permits for the first phase, to address all construction phases or before each successive phase, as necessary, SBCH shall prepare a comprehensive Construction Hazards Management Plan for review and approval by the City (fire hazards, emergency response, and public security), County Hazardous Materials Unit (HMU) (fire hazards and hazardous materials and waste) and OSHPD (fire hazards, equipment relocation). The plan shall provide specific mechanisms to implement hazardous materials/waste and medical waste routing and transportation, public security, and fire protection during each construction phase.

HAZ-10 Asbestos-Containing Materials. Prior to issuance of permits for renovation, remodeling, or demolition for each construction phase associated with the proposed project, a State-certified asbestos professional shall review the Asbestos Management Plan and determine whether additional sampling of building materials for asbestos-containing materials should be performed. Any abatement or removal of asbestos-containing materials must be performed in accordance with applicable federal, State, and local regulations.

HAZ-11 Lead-Based Paint. Prior to issuance of permits for renovation, remodeling, or demolition for each construction phase associated with the proposed project, a State-certified lead professional shall survey the structures and determine whether sampling for lead-based

paint is warranted. Any abatement or removal of LBP must be performed in accordance with applicable federal, State, and local regulations.

HAZ-12 PCBs. Prior to issuance of permits for renovation, remodeling, or demolition for each construction phase associated with the project, a qualified professional shall survey the structures and determine whether suspect PCB-containing equipment such as transformers or light ballasts is present in the areas to be disturbed. PCB-containing equipment must be handled and disposed of in accordance with applicable federal, State, and local regulations. This measure shall be included on project plan specifications as applicable.

HAZ-13 Equipment Relocation. Prior to issuance of demolition permits for the existing Central Services Plant, the USTs, ASTs, and associated equipment shall be removed and installed in accordance with OSHPD and County HMU requirements. Any contaminated soil found at the Central Services Plant shall be remediated in accordance with County HMU requirements. This measure shall be included on project plan specifications as applicable.

HAZ-14(a) Former Central Services Plant Site Mitigation Plan Requirements. Prior to and during construction activities at the former Central Plant area (Phase 2B), the Construction Contractor shall comply with the recommendations of the *Site Mitigation Plan, Santa Barbara Cottage Hospital, Central Plant Improvement Project, Santa Barbara, California*, and the JPR review of this plan (JPR, July 2004). These recommendations include:

1. Notify the Santa Barbara County Fire Prevention Division Hazardous Materials Unit (HMU) of the proposed construction.
2. Submit the Site Mitigation Plan (SMP) to the County's Leaking Underground Fuel Tank (LUFT) Program (HMU) and other appropriate agencies for review and approval as part of the permitting process for the project.
3. Obtain all other required permits to conduct the work, and provide all required notifications to perform all aspects of the work, including notification to the Air Quality Control District of the intent to excavate potentially contaminated soils.
4. Install a shoring system in accordance with engineering and State and federal OSHA requirements.
5. Prepare and implement a site-specific Health and Safety Plan (HSP) in accordance with State and federal OSHA requirements and obtain approval by an independent Certified Industrial Hygienist (CIH). Copies of the HSP shall be made available to the County for review and approval as well as to appropriate site construction workers as part of their site orientation and/or regular health and safety meetings. The HSP shall include:
 - a. A summary of all potential risks to construction workers, maximum exposure limits for all site chemicals, and emergency procedures.
 - b. The identification of a Site HSP Officer for the project, that Officer's responsibilities, and routine and emergency contact information for that individual.
 - c. Directives to include that the HSP officer and HMU will be contacted immediately should worker exposure limits be exceeded, or if evidence of soil contamination is encountered during any of the construction activities.
 - d. A statement that the HSP shall be amended as needed if different site conditions are encountered by the Site HSP Officer.

- e. Technical field procedures and worker safety procedures to be implemented for sampling any observed impacted soil.
 - f. Provisions to conduct air monitoring at the site to confirm safe working conditions for the construction workers and provisions for appropriate personal protective equipment (PPE).
 - g. Designation of a qualified individual as the on-site monitor and point of contact. The monitor shall be present at the site daily to perform monitoring and/or soil and air sampling during soil disturbance activities to ensure that soil and air levels are safe and acceptable. This individual shall be responsible for monitoring compliance with all aspects of the HSP and shall be responsible for preparing and submitting weekly activity reports and testing results to the SBCH and appropriate agencies. Air monitoring shall include but is not limited to potential oxygen deficiency, total petroleum hydrocarbons (TPH) volatile organic compounds (VOCs), and potentially explosive conditions. The HSP shall designate the procedures and frequency of the air monitoring activities.
 - h. Contingency procedures to address unexpected conditions that may arise, including but not limited to encountering identifiable environmental conditions that may pose a potential risk to health, safety, or the environment. A report for any unexpected incident shall be prepared and submitted to all involved parties within a 24-hour period of the incident.
 - i. Procedures for soils handling, including a decision matrix for determining when sampling and analysis shall be conducted. Soils considered acceptable for reuse shall be separated from soils to be disposed of at a permitted landfill. Soil stockpiles shall be protected from public access. SBCH shall be responsible for signing all required shipping documents and will retain fully executed copies of such.
 - j. An explanation of chain-of-custody procedures for submittal of soil samples for laboratory analysis.
 - k. Procedures for determining how import soil will be considered “clean” (i.e., suitable for fill at the site).
6. Consult with County agencies and SBCH to determine the need and scope of any sampling and analysis that may be warranted.
 7. Prepare and implement dust standard control practices to prevent the generation of dust during soil handling activities, and if the standards include increased watering for dust suppression, the Contractor shall prevent the off-site runoff and comply with geotechnical requirements for moisture conditioning of the soil.
 8. Conduct off-site soil transport in accordance with the State and federal Department of Transportation (DOT) requirements.
 9. Minimize the tracking of impacted soil from the site by cleaning truck wheels prior to departure and sweeping the exit area(s) as needed.
 10. Clean the surrounding streets to remove soil or contaminated materials that may have migrated from the site during soil handling activities.

11. Implement storm water runoff control measures at the project site including but not limited to the protection of soil stockpiles against storm water erosion and runoff, project site grading for internal drainage, and control of runoff to reduce sediment loading.
12. Provide for procedures to manage groundwater should it be encountered during construction activities, including appropriate permits and groundwater analysis for the selected method of management (e.g., discharge to the sanitary sewer or storm water collection system).
13. Maintain a daily log of all construction activities to be provided to SBCH upon completion of the project. SBCH shall prepare a report documenting unanticipated environmental conditions as applicable and forward the report to the County HMU. Upon completion of the excavation and soil disposal activities, SBCH shall prepare a document certifying that the provisions of the SMP have been completed, and that certification shall be made by a person qualified to confirm implementation of the SMP.

HAZ-14(b) Removal of Contaminated Soil. Prior to issuance of a building permit for the Central Plant (Phase 2B), the applicant shall provide evidence in writing to the City Planning Division that contaminated soil on the project site has been removed and either treated or disposed of at an approved facility in accordance with applicable regulations to the satisfaction of the Santa Barbara County Fire Department Protection Services Division. Documentation certifying that the provisions of the Site Mitigation Plan were completed shall be prepared by a person qualified to confirm implementation of the Site Mitigation Plan.

HAZ-15 Unknown Substances. For construction activities outside of the former Central Plant area, if unknown substances are encountered in the soils during site clearance, excavation, and grading activities, the contractor shall stop work and contact the Site Health and Safety Officer. The Site Health and Safety Officer shall notify the appropriate agencies to determine sampling, handling, and disposal requirements for the substance.

Measures in accordance with applicable regulations shall be implemented throughout demolition, grading, and construction activities to provide for protection of workers and on-site occupants in the event that unknown subsurface hazardous materials are unearthed. Disposition of such materials shall be undertaken in accordance with all applicable regulations to ensure that no long-term hazard remains. This measure shall be included on project plan specifications, as applicable.

9.7.3 SPECIFIC PLAN CONSTRUCTION - HAZARDS IMPACTS

This section analyzes construction-related on-site or off-site impacts that could occur with any future development allowed under the Specific Plan, SP-8. Under the Specific Plan, a potential fourth nursing pavilion (100 beds) could be permitted for construction in place of existing buildings of the main hospital (Buildings K, I, E, etc.), which could result in hazards or hazardous materials impacts.

Similar to the proposed project, construction of any future development under the Specific Plan would result in changes in handling and transportation route, changes in hazardous materials usage and hazardous waste disposal, routing of medical waste, disruption of public security, and increases in potential fire hazards. As with the proposed project, **Mitigation Measure HAZ-9 (Construction Hazards Management Plan) would reduce potential hazards impacts**

during the construction period to less than significant levels. No physical effects on the environment would result from implementation of this plan.

➤ **Hazardous Materials and Waste Impacts (Specific Plan Construction)**

Similar to the proposed project, potential future development under the Specific Plan would result in demolition and renovation of existing structures, equipment removal and relocation, and excavation of soils. Therefore, there is a potential for exposure of persons or the environment to be exposed to hazardous substances due to improper use, storage, or disposal of hazardous materials and exposure of proposed project occupants or construction workers to unremediated soil or groundwater contamination.

The potential for hazardous materials/waste impacts is a function of construction time and scope. The potential for hazardous materials/waste impacts under the Specific Plan would be similar to that of the proposed project. Mitigation measures applicable to the proposed project would be applicable to construction of facilities allowed under the Specific Plan.

Implementation of Mitigation Measures HYD-9, 10, 12, and 13 (State General Permit for Storm Water Discharges Associated with Construction Activity requirements and City Municipal Code requirements), HAZ-9 (Construction Hazards Management Plan), HAZ-10 (Asbestos-Containing Materials), HAZ-11 (Lead-Based Paint), HAZ-12 (PCBs), HAZ-13 (Equipment Relocation), HYD-11 (Dewatering), and HAZ-15 (Unknown Substances) would reduce potential impacts with respect to handling of hazardous materials/waste to less than significant levels. No physical effects on the environment would result from implementation of these measures because they are standard regulatory requirements to protect people and the environment from hazardous substances exposure.

➤ **Medical Waste Impacts (Specific Plan Construction)**

Similar to the proposed project, there is the potential for persons or the environment to be exposed to medical waste during construction of any future development allowed under the Specific Plan, due to renovation and demolition activities that may interfere with medical waste handling and routing.

The potential for exposure to medical waste under the Specific Plan would be similar to the exposure under the proposed project. Compared to the existing condition, an additional acute care facility would increase potential exposure of persons to medical waste interaction. Similar to the proposed project, for implementation of the Specific Plan, SBCH would be required to address routing of medical waste for the construction period. *Compliance with Mitigation Measure HAZ-9 (Construction Hazards Management Plan) would reduce potential impacts with respect to handling of medical waste to less than significant levels. No physical effects on the environment would result from implementation of this plan.*

➤ **Sewage Hazard Impacts (Specific Plan Construction)**

Sewage hazard impacts with implementation of the Specific Plan are not anticipated during construction. As in the existing condition, during construction restroom facilities would be available for hospital workers and patients. Construction workers would utilize portable facilities that can either be pumped out by a vacuum truck or removed for sewage disposal into the sewer system or at the wastewater treatment plant. *Significant sewage hazards would not result during construction, and no mitigation is required.*

➤ **Public Security Impacts (Specific Plan Construction)**

Similar to the proposed project, there is the potential for public security impacts during construction of facilities allowed under the Specific Plan due to the presence of numerous temporary workers, and demolition/renovation activities that might affect secured access areas.

The degree of potential public security impacts is based on the number of temporary workers and the area of existing structures disturbed. The potential for public security risks may be less with the potential future development allowed under SP-8 than with the proposed project, due to the smaller amount of reconstruction/new construction involved. However, similar to the proposed project, for implementation of SP-8, SBCH would need to address public security impacts and preventive measures in a comprehensive plan to be reviewed and approved by oversight agencies. *Compliance with Mitigation Measure HAZ-9 (Construction Hazards Management Plan) would reduce potential impacts with respect to public security less than significant levels.* No physical effects on the environment would result from implementation of this plan.

➤ **Fire Hazards Impacts (Specific Plan Construction)**

Similar to the proposed project, there is the potential for fire hazards impacts during potential future reconstruction of existing hospital buildings as allowed under the Specific Plan, due to the use of additional flammable materials.

The potential for fire hazard impacts may be less under the Specific Plan than with the proposed project, due to the smaller amount of reconstruction/new construction involved. However, mitigation is still required. *Similar to the proposed project, compliance with Mitigation Measures HYD-9 and HYD-10 (State General Permit for Storm Water Discharges Associated with Construction Activity requirements), TRF-8 (Construction Management Plan), and HAZ-9 (Construction Hazards Management Plan) would reduce fire hazard impacts to less than significant levels during construction.* No physical effects on the environment would result from implementation of these measures.

9.7.4 CUMULATIVE CONSTRUCTION - HAZARDS IMPACTS

Since the project vicinity is built out, new construction projects would mostly involve redevelopment of existing developed properties.

Impacts analyzed in this section are construction-related impacts that could occur on site or off site with construction of the proposed project, the Specific Plan, and any other reasonably foreseeable projects within the same construction period and located within the SBCH vicinity.

➤ **Hazardous Materials and Waste Impacts (Cumulative Construction)**

The construction of the proposed project and potential future development under the Specific Plan has the potential to cumulatively contribute to hazardous materials/waste impacts in the project vicinity due to the increased use of hazardous materials and generation of hazardous waste during construction activities, changes of routing of hazardous materials/waste, the potential to contact contaminated soil and/or groundwater, and the potential to release known hazardous building materials into the environment. The mitigation measures required for the proposed project and the Specific Plan to prevent adverse hazardous materials/waste impacts

during construction are standard regulatory requirements tailored to the site conditions. Each new development project in the hospital's vicinity would be subject to similar requirements. *With implementation of the mitigation measures described in previous sections, the proposed project's contribution to combined hazardous materials/waste effects from past, present, and reasonably foreseeable future projects within the SBCH vicinity during the construction phases would not be significant.*

➤ **Sewage Hazard Impacts (Cumulative Construction)**

As mentioned previously, sewage generated by construction workers at the SBCH site or in the SBCH vicinity would be disposed of at an off-site location. *Therefore, the proposed project's contribution to combined sewage hazards from past, present, and reasonably foreseeable future projects within the SBCH vicinity during the construction phases would not be significant.*

➤ **Public Security Impacts (Cumulative Construction)**

Each cumulative project site under development is responsible for its own public security, which is specific and insular to each site. That is, potential public security impacts at one site would not necessarily contribute to public security impacts at other sites in the vicinity. Businesses in the surrounding area, such as medical offices, utilize standard procedures to maintain public security to prevent the loss of valuable items and for liability purposes. Refer to Chapter 12.0, Public Services and Utilities, for an evaluation of police response times. Compliance with Mitigation Measure HAZ-9 (Construction Hazards Management Plan) would reduce potential impacts with respect to public security. No physical effects on the environment would result from implementation of this plan. Therefore, the *proposed project's contribution to combined public security effects from past, present, and reasonably foreseeable future projects during the construction phases within the SBCH vicinity would not be significant.*

➤ **Cumulative Construction Fire Hazards Impacts**

Construction of the proposed project and the potential future development under SP-8 have the potential to cumulatively contribute to fire hazard impacts in the project vicinity due to the use of additional flammable materials and to relocation or disturbance of underground or aboveground utilities. Fire hazard impacts at projects within the cumulative study area and within one or two blocks of SBCH have the potential to adversely impact the proposed project and/or Specific Plan implementation. The mitigation measures required for the proposed project and the Specific Plan to prevent adverse fire hazards impacts during construction are standard regulatory requirements tailored to the site conditions. Each new development project in the SBCH vicinity would be subject to these same requirements. The City and applicable County agencies are responsible for reviewing construction plans to ensure that fire hazards are not created that could affect adjacent properties. *With implementation of the mitigation measures prescribed in this chapter, the proposed project's contribution to combined fire hazard effects from past, present, and reasonably foreseeable projects within the project vicinity would not be significant.*

9.8 SUMMARY OF HAZARDS IMPACTS

The proposed project and potential future reconstruction as allowed under the Specific Plan have the potential to result in the following long-term and temporary construction impacts:

- Exposure of people or the environment to hazardous substances through improper handling of known hazardous building materials and hazardous chemicals and to improper handling of medical waste.
- Creation of a fire hazard through improper handling or storage of hazardous materials and improper handling of utilities.
- Reduction of public security due to lack of plan implementation and coordination.
- Exposure of people to contaminated soil or groundwater through improper handling of soil at the former Central Services Plant and improper handling of equipment removal and relocation of equipment.

With mitigation measures prescribed in this chapter, hazards and hazardous materials impacts would be less than significant with implementation of the proposed project and/or the Specific Plan.