Section 5.9
HAZARDS AND HAZARDOUS MATERIALS

5.9 HAZARDS AND HAZARDOUS MATERIALS

This section evaluates the impacts of the proposed project related to hazards and hazardous materials. Hazards and hazardous materials impacts are addressed with respect to the transport, use, and disposal of hazardous materials, as well as potential health and safety effects from listed hazardous materials sites and hospital helipad operations. This section describes the existing regulatory framework and the existing hazards and hazardous materials conditions at the project site, evaluates potential impacts associated with hazardous materials and helipad operations, and provides mitigation measures to address such impacts.

5.9.1 ENVIRONMENTAL SETTING

REGULATORY FRAMEWORK

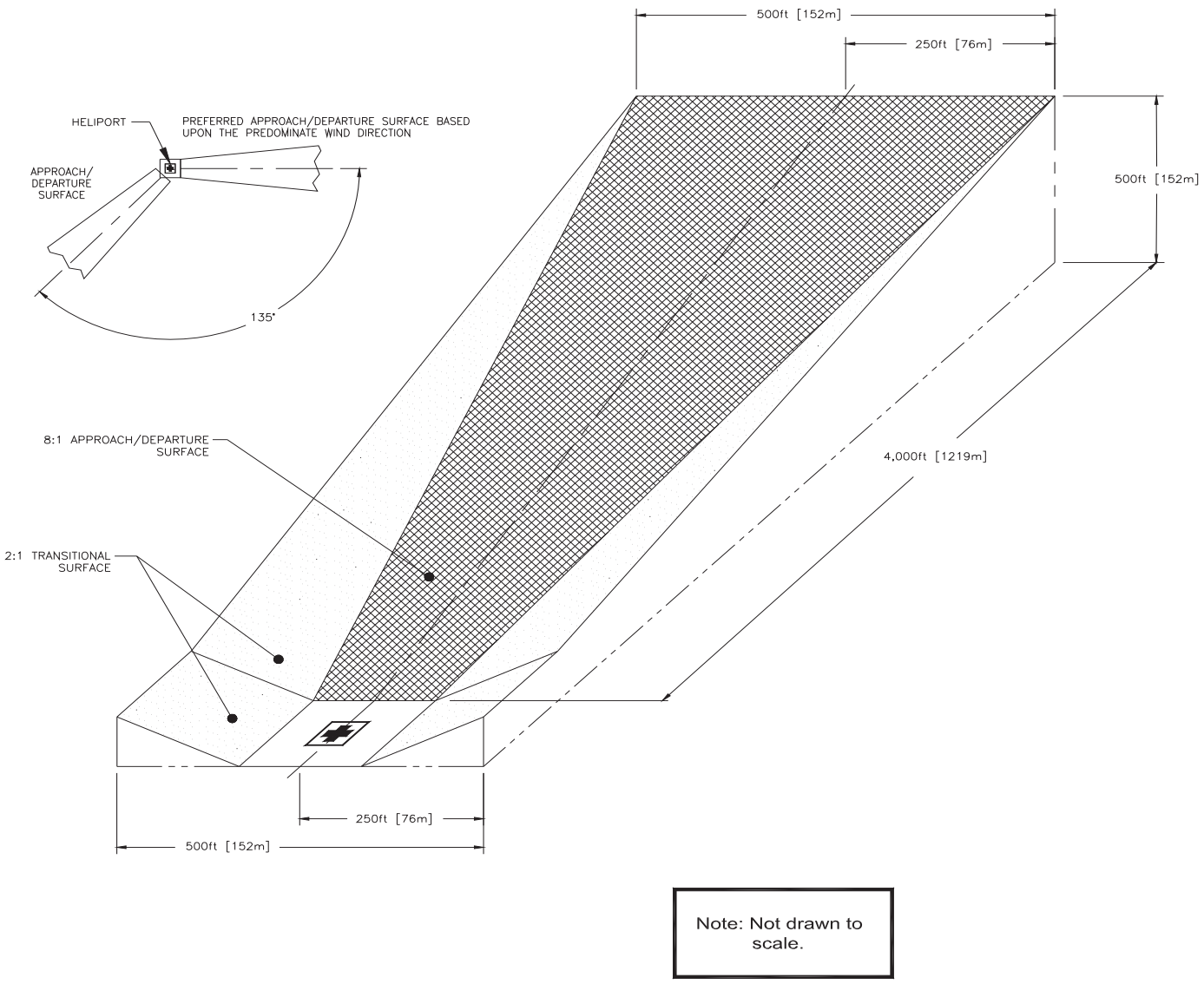
Helipad Operations

Federal Regulations

Federal Aviation Regulation (FAR) Part 77, *Objects Affecting Navigable Airspace*, in addition to providing navigable airspace criteria for airports, also provides imaginary surface criteria for helipads. Specifically, the approach imaginary surface for civil (i.e., non-military) helipads extends at a 8:1 slope upward from the helipad primary surface (i.e., the designated take off and landing area) for a distance of 4,000 feet, and the helipad transitional surface extends from the lateral boundary of both the primary surface and approach surface at a 2:1 slope for a distance of 250 feet. Due to the proposed project's previous and proposed on-site private helipad, regulations pertinent to aviation hazards apply to the proposed project site. Refer to *Exhibit 5.9-1*, *Hospital Helipad Approach/Departure and Transitional Surfaces*, for an illustration of the imaginary surfaces applicable to hospital helipads.

State Regulations

The California Department of Transportation (Caltrans), Division of Aeronautics regulates the siting and operation of private use helipads, such as the helipad that was located at the project site and since closed due to on-site construction activities (discussed below under Existing Conditions). The Caltrans' mission in aviation is to foster and promote the development of a safe, efficient, dependable, and environmentally compatible air transportation system. The State's regulation of aviation began in 1947 with the California Aeronautics Commission, which eventually became the Division of Aeronautics under Caltrans. The State Aeronautics Act, Public Utilities Code (PUC) section 21001 et seq., is the foundation for Caltrans' aviation policies. The Division issues permits for and annually inspects hospital helipads and public-use airports; makes recommendations regarding proposed school sites within two miles of an airport runway; and authorizes helicopter landing sites at or near schools. Aviation system planning provides for the integration of aviation into transportation system planning on a regional, statewide, and national basis. The Division of Aeronautics administers noise regulation and land use planning laws that foster compatible land use around airports and encourages environmental mitigation measures to lessen noise, air pollution, and other impacts caused by aviation. The Division of Aeronautics also provides grants and loans



NOTE: Rotor diameter and weight limitation markings are not shown for simplicity.

Source: U.S. Department of Transportation, Federal Aviation Administration, September 30, 2004.

REVISED ENVIRONMENTAL IMPACT REPORT
HENRY MAYO NEWHALL MEMORIAL HOSPITAL MASTER PLAN

NOT TO SCALE

Hospital Helipad Approach/ Departure and Transitional Surfaces

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06/08 • JN 10-103970

Exhibit 5.9-1

or safety, maintenance, and capital improvement projects at airports. Caltrans reviews development plans that include helipads, and associated *CEQA* analyses, to determine if the helipad meets design and safety requirements.

Hazardous Materials

The definition of "hazardous material" is different for different regulatory programs; for purposes of this EIR, the definition is similar to that in the California Health and Safety Code, Section 25501:

> Hazardous materials that, because of their quantity, concentration, or physical or chemical characteristics, pose a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.

"Hazardous waste" is a subset of hazardous materials. For the purposes of this EIR, the definition of hazardous waste is essentially the same as that in the California Health and Safety Code, Section 25517, and in the California Code of Regulations, Title 22, Section 66261.2:

> Hazardous wastes are wastes that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may either cause, or significantly contribute to, an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Hazardous materials can be categorized as non-radioactive chemical materials, radioactive materials, and biohazardous materials. For hazardous chemicals, the above definitions are typically adequate; radioactive and biohazardous materials are further defined below:

- Radioactive materials contain atoms with unstable nuclei that spontaneously emit ionizing radiation to increase their stability.
- Radioactive wastes are radioactive materials that are discarded (including wastes in storage) or abandoned.
- Biohazardous materials are materials containing certain infectious agents (microorganisms, bacteria, molds, parasites, viruses) that normally cause or significantly contribute to increased human mortality, or organisms capable of being communicated by invading and multiplying in body tissues.
- Medical waste includes both biohazardous wastes (byproducts of biohazardous materials) and sharps (devices capable of cutting or piercing, such as hypodermic needles, razor blades, and broken glass) resulting from the diagnosis, treatment, or immunization of human beings, or research pertaining to these activities.

Applicable Plans and Regulations

Hazardous materials handling and hazardous waste management are subject to laws and regulations at all levels of government, as summarized below. The hospital complies with these laws and regulations, in part, by implementing a series of in-house policies and procedures. These policies and

procedures are described following the regulatory background information. A discussion of regulatory oversight then follows.

Hazardous Materials Management and Emergency Planning. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and, if such materials are accidentally released, to prevent or to mitigate injury to health or the environment. California's Hazardous Materials Release Response Plans and Inventory Law, sometimes called the "Business Plan Act," aims to minimize the potential for accidents involving hazardous materials and to facilitate an appropriate response to possible hazardous materials emergencies. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored onsite, to prepare an Emergency Response Plan, and to train employees to use the materials safely. The hospital's Hazardous Materials Business Plan is on file with the Los Angeles County Fire Department (LACFD). This information is to be updated when there is a substantial change in operations. Businesses that handle certain very hazardous substances must undertake a systematic analysis of their operations, study the potential consequences of possible worst-case accidents, and prepare Risk Management Plans to reduce apparent risks. The hospital handles such materials, but not in quantities sufficient to trigger Risk Management Plan requirements. These laws are implemented locally by the LACFD, which also enforces certain fire code regulations pertaining to hazardous materials storage.

Building and Fire Safety. Hospitals, unlike other buildings, must not only be safe for patients but also be able to provide care to the community in the event of a major disaster, including earthquakes. In order to ensure that hospitals in California conform to high construction standards, the Alfred E. Alquist Hospital Facilities Seismic Safety Act (HSSA) was passed in 1973. The intent of the HSSA is to assure that hospitals are reasonably capable of providing services to the public after a disaster. In 1983, the HSSA (Health and Safety Code, Section 129675) was significantly amended and ultimately preempted local building departments from all hospital construction plan review responsibility and transferred it the Office of Statewide Health Planning and Development (OSHPD), and the Division of the State Architect (DSA). This essentially created a building department within OSHPD, called Facilities Development Division (FDD).

FDD reviews and approves the plans and specifications for the construction, alteration, and addition to hospital buildings and skilled nursing homes, and observes construction activities to ensure compliance with the provisions of the California Building Standards Code, Title 24, California Code of Regulations. This includes plan review of the design details of the architectural, structural, mechanical, plumbing, and electrical systems.

In 1991, recognizing the need to consolidate health facility plan review and construction observation functions, the Legislature established a single point of accountability and authority for plan review and construction observation activities relating to hospitals by transferring all duties and functions to OSHPD's FDD. Now the hospital design and construction industry has a single enforcement agency to provide all services and technical guidance with regard to the construction of health facility projects. FDD is also one of the regulatory agencies authorized to develop building standards adopted in the California Building Standards Code for hospitals and skilled nursing facilities, as well as correctional treatment centers and licensed clinics.

The City of Santa Clarita Building and Safety Division locally enforces the *California Building Code (*as amended), while the LACFD enforces the *California Uniform Fire Code* (as amended), for development projects within the City. These laws specify management practices for flammable materials, including some packaging and containment requirements. They also set forth appropriate construction standards (e.g., fire separations and fire suppression systems), depending on building occupancy classifications. For all buildings that do not require review by the California Office of Statewide Health Planning and Development (OSHPD), the City's Building and Safety Division reviews proposed building design plans to ensure compliance with California Building Code requirements. These include the three proposed medical office buildings (MOBs 1-3) and the four parking structures (PS 1-4).

Worker Safety. Federal and State laws set occupational safety standards to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. For example, manufacturers are to appropriately label containers, Material Safety Data Sheets are to be available in the workplace, and employers are to properly train workers. The U.S. Occupational Safety and Health Administration's Bloodborne Pathogens Standard requires the use of Universal Precautions (handling all human blood and certain body fluids as if they contain infectious agents) in the workplace. All of these safety standards and practices, regarding workplace safety and providing a safe and healthy environment for patient care, are implemented by the hospital's Employee Health Program and Safety Management Program, and are addressed in the facility's *Infection Control Manual* and *Environment of Care Manual.*

Hazardous Waste Handling. The U.S. Environmental Protection Agency (EPA) has authorized the California Department of Toxic Substances Control (DTSC) to enforce hazardous waste laws and regulations in California. Requirements place "cradle-to-grave" responsibility for hazardous waste disposal on the shoulders of hazardous waste generators. Generators must ensure that their wastes are disposed of properly, and legal requirements dictate the disposal requirements for many waste streams (e.g., banning many types of hazardous wastes from landfills). Many hazardous waste generators are required to prepare Hazardous Waste Minimization Plans pursuant to the California Hazardous Waste Source Reduction and Management Review Act. The hospital's *Environment of Care Manual* addresses hazardous materials minimization, among other issues, and the hospital is continually seeking additional means of reducing waste streams to meet regulatory requirements and reduce costs. All hazardous waste generators must certify that, at a minimum, they make a good faith effort to minimize their waste and to select the best waste management method available. Hazardous waste laws and regulations are enforced locally by the Los Angeles County Fire Department.

Radioactive Materials Management. The Radiologic Health Branch of the California Department of Health Services administers the federal and state radiation safety laws that govern the storage, use, and transportation of radioactive materials and the disposal of radioactive wastes. The Radiologic Health Branch licenses institutions that use radioactive materials and radiation-producing equipment, such as x-ray equipment. To maintain a radioactive materials license, an institution must

meet training and radiation safety requirements and be subject to routine inspections. These safety requirements are also addressed in the hospital's Employee Health Program and Safety Management Program, and reflected in the facility's *Environment of Care Manual*. Radioactive waste is classified into three classifications (A, B, C) for near surface disposal, as defined in the Nuclear Regulatory Commission Regulations (10NRC), Section 61.55 Waste Classification.

Medical Waste Handling. The California Department of Health Services Medical Waste Management Program enforces the California Medical Waste Management Act and related regulations. Medical waste is generally regulated in the same manner as hazardous waste, except that special provisions apply to storage, disinfection, containment, and transportation. The law imposes a cradle-to-grave tracking system and a calibration and monitoring system for on-site treatment. Facilities that treat medical wastes must obtain permits to do so and are subject to annual audits. The hospital does not treat or incinerate medical waste on-site, but processes biowastes for ultimate disposal at a permitted disposal facility. Medical waste is to be stored in closed red bags marked "biohazard" and, when transported for disposal, placed inside hard-walled containers with lids.

Hazardous Materials Transportation. The U.S. Department of Transportation (DOT) has developed regulations pertaining to the transport of hazardous materials and hazardous wastes by all modes of transportation. DOT regulations specify packaging requirements for different types of materials. The U.S. Postal Service (USPS) has developed additional regulations for the transport of hazardous materials by mail. EPA has also promulgated regulations for the transport of hazardous wastes. These more stringent requirements include tracking shipments with manifests to ensure that wastes are delivered to their intended destinations. In California, the California Highway Patrol, the California DOT (Caltrans), and the DTSC play a role in enforcing hazardous materials transportation requirements.

Hazardous Building Components. Structural building components sometimes contain hazardous materials such as asbestos, polychlorinated biphenyls (PCBs), lead, and mercury. During demolition or renovation of any existing building, these hazardous material building components may be disturbed and thus expose workers, the public, and the environment to these hazards. These materials are subject to various regulatory protocols as described below.

> ***Asbestos***: Asbestos is regulated both as a hazardous air pollutant and as a potential worker safety hazard. South Coast Air Quality Management District (SCAQMD) and Cal/OSHA regulations restrict asbestos emissions from demolition and renovation activities, and specify safe work practices to minimize the potential for release of asbestos fibers. These regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos. California requires licensing of contractors who conduct asbestos abatement activities.
>
> ***PCBs***: DTSC has classified PCBs as a hazardous waste when concentrations exceed 5 parts per million (ppm) in liquids or 50 ppm in nonliquids. Fluorescent light ballasts may contain PCBs; if so, they are regulated as hazardous waste and must be transported and disposed of

as hazardous waste. Ballasts manufactured after January 1, 1978, should not contain PCBs and are required to have a label clearly stating that PCBs are not present. PCBs are regulated under the Federal Toxic Control Substances Control Act.

Lead: Cal/OSHA standards establish a maximum safe exposure level for types of construction work where lead exposure may occur, including demolition of structures where materials containing lead are present; removal or encapsulation of materials containing lead; and new construction, alteration, repair, or renovation of structures with materials containing lead. Inspection, testing, and removing lead-containing building materials must be performed by State-certified contractors who are required to comply with applicable health and safety and hazardous materials regulations. Typically, building materials with lead-based paint attached are not considered hazardous waste unless the paint is chemically or physically separated from the building debris. The U.S. Department of Housing and Urban Development has developed Guidelines for Evaluation and Control of Lead-Based Paint Hazards.

Mercury: Spent fluorescent light tubes, thermostats, and other electrical equipment contain heavy metals that, if disposed of in landfills, can leach into soil or groundwater. Lighting tubes typically contain concentrations of mercury that may exceed regulatory thresholds for hazardous waste and, as such, must be managed in accordance with hazardous waste regulations. Elemental mercury is in many electrical switches, and when disposed of, such mercury is considered hazardous waste. Mercury thermometers are being phased out and replaced with digital thermometers.

EXISTING CONDITIONS

Hospital Helipad Operations

Aviation hazards include structures that pose height, electronic, or visual interference to aviation. The Los Angeles County Fire Department (LACFD) and Los Angeles County Sheriff Department (LACSD) air operations, as well as Mercy Air and other medical transport services have historically used the hospital at-grade helipad, which became operational in 1975, as a receiving location for patients flown in by helicopter.

Currently, however, no flight operations are occurring due to the closure of the helipad in September 2005 due to construction activities for previously approved (non-Master Plan) hospital improvements. These construction activities included the State-required connection between the main hospital building and the Nursing Pavilion, as well as the construction of the emergency room addition.

Based on data provided in a previous noise analysis report by BridgeNet International (BridgeNet) regarding previous helicopter operations at the hospital, the helicopters typically operating at the hospital included the Bell 222, Bell 412, Sikorsky S70 Blackhawk, and Koala helicopters. All of these helicopter types flew approximately the same flight paths going to and from the previous helipad. Based on the discussions between BridgeNet International and pilots from LACFD Air Operations, when approaching the hospital from either the north or the west, the helicopters flew along McBean Parkway until reaching the hospital. Once the helicopter was approximately over the

hospital, the pilot then moved the aircraft over the parking lot, between the existing buildings and toward the helipad, which was at ground level. Departing helicopter flights flew over the parking lot toward McBean Parkway and, depending upon the winds, travel either north or west over the parkway. These paths were designed to fly over less noise-sensitive land uses when in the area of the hospital. However, pilots have the discretion to alter flight paths when approaching and departing the hospital, in order to account for wind direction and other factors. As such, although the prescribed flight path approaching and departing the hospital is along McBean Parkway, pilots often modify their approach or departure path depending on the specific conditions. Previous operations averaged 10 to 12 arrivals or departures a month. Refer to Section 5.7, Noise, for a discussion of the BridgeNet report, helipad locations, and flight paths.

Prior to the construction-related closure in September 2005, the previous helipad, which was located at-grade adjacent to the main hospital building, was permitted to operate by the California Department of Transportation, with specific approved approach/departure routes to minimize safety risks. However, as previously discussed, pilots utilizing the helipad have ultimate discretion regarding approach and departure flight paths.

Hazardous Materials and Wastes

Hazardous Materials Use

Patient care activities involve relatively small quantities of hazardous materials, which are primarily in clinical offices, cleaning and sterilizing processes, and pharmacies. The types of hazardous materials found in medical facilities include chemotherapy reagents and other pharmaceuticals; chemicals used to sterilize equipment; formaldehyde for specimen preservation; and solvents, oxidizers, corrosives, and stains used in clinical laboratories. Facilities maintenance activities require various common hazardous materials, including cleaners (which may include solvents and corrosives, in addition to soaps and detergents); paints; pesticides and herbicides; fuels (e.g., diesel); and oils and lubricants. Radioactive materials are utilized at the hospital, which are primarily used to treat certain types of cancer. Radioactive materials generally contain radioactive atoms; however, x-ray equipment (which does not involve any radioactive substances) is also regulated as radioactive material. Biohazardous materials and medical wastes (including pathological specimens, surgical specimens, human tissues, bulk blood and blood products, blood specimens, and body fluids) are handled in clinical offices, dialysis units, operating rooms, pathology and radiology departments, and respiratory therapy.

Currently, the HMNMH uses and stores various amounts and types of hazardous materials, as indicated above, many of which are kept in the hospital's Nursing Pavilion Central Plant. Such materials stored at the Nursing Pavilion Central Plant include, but are not limited to, the following: lubricants, solvents, anti-corrosion or corrosion removal agents, oils, paints, cleaners, various alloys and metals, alcohols, adhesives, absorbent materials, sealants, rust removers, insulation, various gases, fuels, and refrigerants. A complete list of the materials stored in the hospital's Nursing Pavilion Central Plant is included as Appendix J, Henry Mayo Newhall Memorial Hospital Nursing Pavilion Central Plant Materials Storage List.

Hazardous Waste Generation

Use of hazardous materials typically produces hazardous waste. Much of the hazardous material handled at the hospital is consumed through use. Potential waste includes solvents, waste oil and mixed oils, and photography liquids and solids. These wastes are shipped to hazardous waste treatment, storage, and disposal facilities off-site in accordance with the California Hazardous Waste Control Law. Any hazardous chemical waste is shipped off-site for disposal or recycling.

The hospital generates relatively little radioactive waste for off-site disposal. Most of the radionuclides used to treat patients have half-lives no greater than 52 days, so they are stored on-site until their radioactivity decays to background levels; then they are disposed of as ordinary non-hazardous solid waste.

Physical Hazards

As with all work environments, various physical safety hazards exist at the project site. Office and clinical activities are associated with various physical hazards from common activities such as lifting, using sharp tools, and performing repetitive motions. Some employees work with equipment that presents special hazards, such as high-voltage electrical equipment, x-ray-producing instruments, lasers, and high-intensity magnetic fields. Some hazardous materials have the potential to pose physical safety hazards, (e.g., burns) if not properly managed. Classes of materials that are associated with physical injuries include pressurized liquids and gases, cryogenic (extremely cold) liquids, flammable materials, and corrosive chemicals.

5.9.2 SIGNIFICANCE THRESHOLD CRITERIA

The City of Santa Clarita Local CEQA Guidelines (Resolution 05-38) serve as the basis for determining significant impacts, as well as the Initial Study checklist questions. The Initial Study is contained in Appendix A of this EIR, and includes questions relating to hazards and hazardous materials. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section as the City does not provide thresholds regarding Hazards and Hazardous Materials. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- The creation of a safety hazard or potential safety hazard.
- The creation of any health hazard or potential health hazard.
- Interference with an emergency response plan or emergency evacuation plan.
- The creation of a hazard or potential hazard to the public through the routine transport, use, or disposal of hazardous materials.
- A risk of accidental explosion or release of hazardous substances (including but not limited to oil, pesticides, chemicals, or radiation).

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less

than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.9.3 IMPACTS AND MITIGATION MEASURES

HELIPAD-RELATED HAZARDS

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: Construction of the proposed Master Plan would result in the development of a 125,636 square foot Inpatient Building, a 10,000 square foot Central Plant, three three-story medical office buildings (MOB1, MOB2, and MOB3) totaling 200,000 square-feet of office space, three parking structures (PS1, PS2, and PS3) totaling 1,607 spaces, and one subterranean parking structure providing 316 spaces (PS4).

As part of the proposed project, a helipad would be located on the roof of PS1 and the roof of the Inpatient Building. The specific design and placement of the rooftop helipads would be subject to review by the California Department of Transportation (Caltrans), Division of Aeronautics.

The flight paths would be essentially the same as under previous conditions prior to the closure in September 2005. Under calm wind conditions, where the winds are less than ten knots, pilots would typically continue to fly along McBean Parkway until they reach the hospital, then turn toward the pad by flying over the parking lot. Departing flights would take off toward the parking lot to the south and then continue along the parkway, either north or west, depending upon the next destination and prevailing winds at the time. Refer to Section 5.7, Noise, for helipad locations and flight paths. Under conditions when winds from the west exceed ten knots, the helicopters would not be able to approach the helipad directly from the west, but more from a northwest direction. In this case, the pilots would approach the hospital from the northwest along McBean Parkway.

As previously discussed, the hospital previously accommodated 10 to 12 helicopter flights each month prior to the construction-related suspension of services in September 2005. According to the hospital, the level of helicopter activity is expected to increase to 15 to 17 flights per month in the future. This is an estimate based on the growth over several years in the past, and the ultimate increase to up to 17 flights per month is not expected to occur for several more years in the future. Given compliance with applicable FAA and Caltrans helipad design and operations requirements, ongoing helicopter operations would not create a safety risk to on-site or nearby properties. As such, no significant impacts are expected to occur, since the proposed project would not create a safety hazard or expose people or structures to substantial risk from helipad flight operations. Impacts would be less than significant and no mitigation measures would be required.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

CONSTRUCTION-RELATED HAZARDOUS MATERIALS IMPACTS

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: Project implementation includes the demolition of the existing Foundation and Administration Office Building to accommodate Medical Office Building 3 (MOB3). The project site is not included on the list of hazardous materials sites (Cortese List)[1] compiled pursuant to *Government Code* Section 65962.5. However, building components in structures built prior to 1981 could contain hazardous materials, such as asbestos, PCBs, lead, and mercury.

Asbestos poses health hazards only when inhaled; therefore, friable (easily crumbled) asbestos is potentially hazardous if not encapsulated. Non-friable asbestos or encapsulated asbestos does not pose substantial health risks. Upon building renovation or demolition at the project site, asbestos fibers (if any are present) could be disturbed, released into the air and inhaled by construction workers or the public unless proper precautions are taken.

Building components containing PCBs, lead, or mercury could also be found in areas to be demolished or renovated. In sufficient concentrations, lead and mercury are regulated as hazardous wastes. Applicable health and safety requirements would minimize any risks from handling these materials, unless they fail to be identified adequately prior to demolition or renovation.

The proposed project could involve handling hazardous materials in a manner that poses a hazard to people, animals or plants, if appropriate hazardous materials surveys and safety precautions are not undertaken. This exposure could constitute a potentially significant impact.

To the extent that the proposed project could remove hazardous materials within existing buildings, it could be beneficial over the long term. The removal of such materials could reduce potential health threats and prevent individuals on and off-site from encountering such materials in the future. Properly handling and disposing of contaminated materials would protect the environment and prevent potential future adverse health, safety, or environmental effects related to them. As such, potentially significant impacts are expected to occur, since the proposed project would create a health hazard, or expose people to substantial risk from hazardous materials during construction. However, with, implementation of the recommended mitigation measure (HAZ1), impacts would be reduced to a less than significant level.

Mitigation Measure:

HAZ1 The project applicant shall retain a qualified environmental specialist (e.g., a Registered Environmental Assessor or similarly qualified individual) to perform pre-construction hazardous materials surveys to inspect existing building areas subject to demolition or renovation for the presence of as yet unidentified asbestos, PCBs, mercury, lead, or other hazardous materials. If found at levels that require special handling, the Project Applicant shall manage these materials as required by law and according to federal and state regulations and guidelines, including those of DTSC,

[1] Department of Toxic Substances Control website, http://www.calepa.ca.gov/SiteCleanup/CorteseList/SectionA.htm#Facilities, accessed September 2007.

SCAQMD, Cal/OSHA, and any other agency with jurisdiction over these hazardous materials.

Level of Significance After Mitigation: Less Than Significant Impact.

HAZARDOUS MATERIALS USE, STORAGE, AND HANDLING

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The proposed project would increase hazardous materials storage and use at the Inpatient Building, the Central Plant, and the Medical Office Buildings (MOB1, MOB2, and MOB3). As discussed in the Existing Setting section, the hazards posed by chemicals, radioactive materials, and infectious agents vary. Some chemicals can pose physical hazards (e.g., chemical burns) or health hazards (e.g., poisoning), including potential acute or chronic illnesses. The properties and health effects of different chemicals are unique to each chemical and depend on the extent to which an individual is exposed. Exposure to excessive levels of radiation, whether from radiation-producing equipment or radioactive materials, can result in headaches, skin burns, or chronic illness, including cancer. Exposure to biohazardous materials can cause a range of illnesses, depending on the infectious agent encountered. Some infections can result in short-term discomfort (e.g., mild symptoms that can easily be treated or go away by themselves), while others can result in serious acute effects (e.g., dangerous disruptions of life functions). Some chronic diseases may or may not be curable or treatable. Some diseases may be communicable. In all these cases, the risks posed by the hazardous materials depend on the potential for exposure.

Workers and Other Individuals On-Site. The project-related effects of hazardous materials handling and storage would generally be limited to the immediate areas where the materials would be located because this is where exposure would be most likely (exposure at more distant locations would require some mechanism to transport the material to the location). For this reason, the individuals most at risk would be the employees at Inpatient Building, the Central Plant, and the Medical Office Buildings (MOB1, MOB2, and MOB3) or others in the immediate vicinity of the hazardous materials. The routes through which these individuals could be exposed include inhalation, ingestion, contact, injection, and other accidents.

The hospital (existing and Inpatient Building) and Medical Office Buildings (MOB1, MOB2, and MOB3) are required to comply with health and safety and environmental protection laws and regulations. To accomplish this, and to otherwise provide a safe and healthy environment, the hospital implements health and safety policies and procedures with its Environment of Care Manual, Employee Health Program, and Safety Management Program. Under the proposed Master Plan, the hospital would continue to comply with applicable laws and regulations.

Community and Environment. For the most part, the health and safety procedures that protect workers and other individuals in the immediate vicinity of hazardous materials would also protect the more distant community and environment. The pathways through which the community or the environment (e.g., local air quality and biota) could be exposed to hazardous materials include air emissions, transport of hazardous materials to or from the site, waste disposal, human contact, and accidents.

With implementation of the proposed project, there would be an increase in storage of hazardous materials, but the materials would generally be stored in small, individual containers of about five gallons or less (except for fuel storage tanks and compressed gas cylinders). Therefore, the probability of a major hazardous materials incident would be relatively low. Minor incidents would be more likely, but the consequences of such accidents would probably not be severe due to the typically small quantities of materials handled at any particular time and the equipment and training provided to hospital staff. The hospital presently handles some acutely hazardous materials (materials that can potentially pose serious risks to areas off-site, if handled in sufficient quantities; refer to the *California Code of Regulations Title 8, Section 5189*, for a list of acutely hazardous materials), and the quantities of these materials on-site would be expected to increase. However, the quantities of these materials currently at the hospital facility are sufficiently small that they fall well below the thresholds that would trigger the requirements for a Risk Management Plan,[2] and the proposed project would not be expected to increase the use of these materials to the point that would trigger these requirements.

The hospital maintains an Emergency Response Plan to ensure that staff can respond to possible hazardous materials emergencies. In addition, LACFD provides "first response" capabilities to identify and secure access to hazardous materials incidents. As the patient total increases beyond existing conditions, the demand for hazardous materials emergency services at the hospital would also increase. Thus, the increase in demand for hazardous materials emergency services at the hospital would be proportional to the projected patient increase. This increase would not substantially affect the demand for hazardous materials emergency response services in Santa Clarita and would not substantially affect the availability or response times of emergency responders because the types of hazardous materials used would not change, only the amounts kept at the site.

Aside from accidents possibly occurring on-site, accidents during hazardous waste transport to and from the site could expose individuals and the environment to risks at some distance from the project site. However, transportation accidents are infrequent. According to Caltrans, less than 3.7 vehicle accidents occur for every million vehicle miles traveled on major undivided urban highways. The frequency is substantially less on other types of urban highways. Moreover, DOT, USPS, and the California Department of Health Services Radiologic Health Branch and Medical Waste Program (CDHSRHB) all specify packaging requirements for hazardous materials and wastes that limit the potential for packages to fail on impact. These requirements reduce the potential for hazardous materials releases to occur in the unlikely event of an accident.

In summary, although the proposed project would increase the storage and use of hazardous materials at the hospital, compliance with the hospital's Employee Health Program and Safety Management Program, as addressed in the facility's *Infection Control Manual* and *Environment of Care Manual*, would minimize the potential for exposure to adverse health or safety effects. Therefore, the proposed project would not involve the use of materials in a manner that poses any substantial hazards to people, or to animal or plant populations. Furthermore, the hospital would continue to implement its Emergency Response Plan and the LACFD would continue to provide emergency response services. Therefore, the proposed project would not interfere with emergency response plans or emergency evacuation plans relating to hazardous materials. For these reasons, the proposed project would not result in a significant environmental impact related to the increased

[2] Per the List Rule 63 FR 640

storage and use of hazardous materials by the hospital and hospital-related uses. Impacts are less than significant and do not require mitigation.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

HAZARDOUS WASTE GENERATION

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The number of patient visits is projected to increase with implementation of the proposed project. This increase would be expected to increase hazardous materials use at the HMNMH proportionately. The increased use of hazardous materials would, in turn, result in increased hazardous waste generation, including hazardous chemical, radioactive, and medical waste generation. Proper hazardous waste disposal, regardless of the method selected, often affects the environment. Hazardous waste landfills generally leak at some point and occasionally fail. Waste incinerators release toxic air contaminants to the atmosphere and result in ash that contains unburnable hazardous constituents (such as metals). Most other treatment and recycling methods also result in hazardous residuals that must be disposed of as hazardous waste. These residuals are usually either incinerated or landfilled. For this reason, the generation and disposal of hazardous waste is considered to be a form of pollution, and current hazardous waste management policies designate hazardous waste disposal as the least desirable management approach. Waste management strategies that seek to prevent pollution by reducing waste generation at its source are considered the most desirable approach. Pollution prevention is a national objective established by the Pollution Prevention Act of 1990. This priority is reflected in the hospital's *Environment of Care Manual*, which addresses waste minimization in support of this objective.

Hazardous Chemical Waste. The proposed project would incrementally contribute to the volume of hazardous chemical waste generated in Santa Clarita. The increased hazardous chemical waste generation would increase the volume of waste managed at hazardous waste facilities inside and outside California. The increased demand for waste treatment and disposal would incrementally contribute to the demand for new hazardous waste treatment, recycling, and disposal facilities. The likely effects of hazardous waste disposal would probably occur far from the project site.

California's hazardous chemical waste generators rely heavily on out-of-state treatment and disposal facilities to meet their disposal needs. For example, no hazardous chemical waste incinerators in California accept waste from third-party generators, such as the HMNMH.

Radioactive Waste. As the number of patient visits increases, the demand for low-level, typically short-lived radioactive materials (radioactive materials whose half-lives are less than 90 days) for therapeutic purposes would also increase. The need for sealed sources with longer half-lives (greater than 90 days) would not necessarily increase because sealed sources serve long-term uses and are not routinely discarded as radioactive waste.

The Radiologic Health Branch of the California Department of Health Services issues permits that allow radioactive materials users to hold short-lived radioactive waste for decay. Dry long-lived

radioactive waste is to be disposed of at a low-level radioactive waste landfill. California belongs to the Southwestern Low-Level Radioactive Waste Disposal Compact, a group of four states (California, Arizona, North Dakota, South Dakota) that, together, are responsible for disposing of their low-level radioactive waste. The Compact operates under the authority of the Southwestern Low-Level Radioactive Waste Commission, which was established under Public Law 100-712. Since no regional facility has been constructed within the four states of the Compact, California must rely on out-of-state licensed low-level radioactive waste disposal facilities to accept its low-level radioactive waste. There are three existing low-level waste disposal facilities in the United States that accept various types of low-level waste: Barnwell, South Carolina; Clive, Utah; and Richland, Washington. However, radioactive waste from California is accepted only at the Clive, Utah and Richland, Washington facilities. The Clive Treatment and Disposal Facility is operated by Energy Solutions. The facility has been in operation since 1988 and is licensed to accept Class A low-level waste only. The Washington Low-Level Radioactive Waste (LLRW) site in Richland has been operated by US Ecology for over 20 years. This facility is licensed to accept Class A, B, and C low-level waste. Generators of radioactive waste must comply with California Health and Safety Code Section 115000.1, which requires providing information included in Nuclear Regulatory Commission (NRC) Forms 540, 541, and 542. There is sufficient capacity in both the Clive, Utah and Richland, Washington facilities to accept radioactive waste; therefore less than significant impacts would occur in this regard.

Medical Waste. Project-related medical waste would be shipped off-site for disposal by an authorized hauler. Medical waste treatment facilities have been sited in this region with success. As with most hazardous waste disposal technologies, incineration involves potentially hazardous air emissions, including dioxins, and residuals that must be landfilled. Project-related medical waste would be shipped to off-site disposal facilities.

In summary, the proposed project would increase the HMNMH's generation of hazardous waste and, therefore, its demand for hazardous waste disposal services. This increase in demand would, by itself, has little observable effect on the levels of existing hazards that waste disposal poses to people, or to animal or plant populations, either near the HMNMH or elsewhere. As such, the proposed project would not create a hazard or potential hazard to the public through the use, disposal or transport of hazardous materials. Therefore, the impact of the proposed project would be less than significant, and no mitigation would be required.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

HAZARDOUS MATERIALS EXPOSURE

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: With implementation of the proposed project, potential physical safety hazards would exist at the HMNMH, just as they do now. These hazards would include, among others, electrical shock hazards from high voltage equipment, safety risks posed by compressed gas cylinders (including those filled with inert gases), radiation hazards from x-ray equipment (regulated as radioactive material), and exposure to magnetic fields, intense light, or lasers. Other more

common hazards would include slips, falls, and overexertion. Workers engaged in activities that present special hazards, such as those mentioned above, are to be adequately trained in accordance with HMNMH's *Injury and Illness Prevention Plan* (as required under California state law). Although more individuals would be exposed to physical safety hazards with the project, compliance with occupational safety regulatory requirements would minimize the potential risks that physical hazards could pose to people. As such, the proposed project would not result in a risk of accidental explosion or release of hazardous substances. Therefore, the potential impact would be considered less than significant, and mitigation would not be required.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.9.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The health and safety hazards posed by most hazardous materials are typically local in nature. They generally do not combine in any cumulative sense with the hazards of other projects. Possible exceptions, however, include transportation of hazardous materials and waste disposal. The need to respond to hazardous materials emergencies could also increase as a result of cumulative development.

Transportation. Hazardous materials are transported on virtually all public roads, particularly since all motor vehicles contain hazardous materials (e.g., fuel) in addition to any hazardous cargo that may be on board. The project would contribute little to cumulative transportation hazards. The cumulative effects of transporting hazardous materials would continue to be addressed by regulatory requirements. Packaging requirements for hazardous materials and wastes established by DOT, USPS, and EPA minimize the potential consequences of possible accidents during transport. Also, the vehicle accident rate in California is relatively low compared to other states and not all accidents release hazardous materials. For these reasons, the cumulative impact of potential transportation-related accidents would be less than significant.

Emergency Response. The proposed project and future development in Santa Clarita could cumulatively increase demands for hazardous materials emergency response services. The increase would not be sufficiently large that more than one major hazardous materials incident would be likely to occur simultaneously. Furthermore, cumulative development would not be expected to interfere with emergency response plans or emergency evacuation plans. Hazardous materials emergency response times would be unchanged.

With or without cumulative development, a major catastrophe could generate demand for emergency response services in excess of available resources, and in Santa Clarita, a major earthquake is a catastrophe posing realistic concerns. During an earthquake, structures containing hazardous materials could be damaged. Non-structural seismic safety (e.g., the potential for falling containers and shelves holding hazardous materials) would be of particular concern. Chemical spills and splashes could harm individuals working in the vicinity of the hazardous materials. Safety

requirements enforced by the Los Angeles County Department of Health Services (e.g., securing certain types of containers and installing lips on shelves where hazardous materials are stored) would serve to minimize such risks. Isolated hazardous materials incidents would likely pose limited threats because the HMNMH operations typically involve relatively small quantities of materials. New construction proposed as part of the project, built to current code requirements, would be expected to perform at least as well as, or better than, existing hospital facilities in the City of Santa Clarita. In this way, the proposed project would likely be an asset to the community following a catastrophe. The proposed project's contribution would not be cumulatively considerable. Therefore, this cumulative impact would be less than significant.

Hazardous Waste Disposal. As cumulative development occurs in Santa Clarita and at the state and regional levels, more hazardous wastes will be generated. Project-related hazardous waste generation would contribute to cumulative increases in hazardous waste generation. The incremental environmental effects of expected increases in hazardous waste generation and off-site hazardous waste recycling, treatment, and disposal would also contribute to cumulative effects. Hazardous waste disposal affects the environment by releasing contaminants to land, air, and/or water. Cumulative increases in waste generation could also contribute to the potential for some wastes to be mismanaged at any point in the disposal process in a manner that poses potential hazards to people, or to animal and plant populations. Unless specifically exempted, hazardous waste transporters must comply with the California Highway Patrol Regulations, the California State Fire Marshal Regulations, and the United States Department of Transportation Regulations. In addition, hazardous waste transporters must comply with Division 20, Chapter 6.5, Article 6 and 13 of the California Health and Safety Code and the Title 22, Division 4.5, Chapter 13, of the California Code of Regulations, which are administered by DTSC[3], and any other applicable local, state, and Federal regulations. All of these Regulations are designed to minimize the danger of hazardous materials being released and causing a significant hazard to the public or the environment. The proposed project would comply with existing regulations and the projects contribution to this cumulative impact would be minimal in relation to cumulative impacts. Thus, the proposed project's contribution would be less than cumulatively considerable, and therefore less than significant and no mitigation measures would be required.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.9.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed project would result in less than significant impacts or less than significant impacts with the imposition of mitigation measures for hazardous or hazardous materials. As such, no significant unavoidable impacts would result from implementation of the Henry Mayo Newhall Memorial Hospital Master Plan.

[3] Ibid.

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