

F. HAZARDS AND HAZARDOUS MATERIALS

This section evaluates the effects of the proposed Master Plan in relation to exposure to hazards and hazardous materials¹ during and following construction activities within the project site. The evaluation was based on a review of available information included with the application, a review of environmental database reports,² a site reconnaissance, and a review of other published materials. Potential public health and safety impacts that would result from implementation of the proposed project are described, and mitigation measures are recommended where appropriate.

1. Setting

This section summarizes the regulatory framework for hazardous materials and hazardous waste; lead, asbestos, and other hazardous building materials; and applicable worker health and safety requirements. Findings of recent studies regarding potential health effects from exposure to electromagnetic fields (EMFs) are also described. EMFs are a potential concern on the site due to the location of transmission lines through the northern portion of the site. This section also describes the current use and storage of hazardous materials at the project site.

a. Regulatory Framework. The following section provides the federal, State, and local regulatory framework for hazardous materials and hazardous waste, hazardous building materials that could be encountered during building demolition activities, and worker health and safety.

(1) Hazardous Materials and Hazardous Waste. The use, storage, and disposal of hazardous materials, including management of contaminated soils and groundwater, is regulated by numerous local, State, and federal laws and regulations. The U.S. Environmental Protection Agency (U.S. EPA) is the federal agency that administers hazardous materials and hazardous waste regulations. State agencies include the California EPA (Cal/EPA), which includes the California Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (State Water Board), the California Air Resources Board (CARB), and other agencies. The San Francisco Bay Regional Water Quality Control Board (Water Board), the Bay Area Air Quality Management District (BAAQMD), and San Mateo County Health Department, Environmental Health Division (SMCEHD) have jurisdiction on a regional or local level.

A description of each federal, State, and regional/local agency's jurisdiction and involvement in the management of hazardous materials and wastes is provided below.

Federal. The U.S. EPA is the federal agency responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials and hazardous waste. The federal regulations are primarily codified in Title 40 of the Code of Federal Regulations (40 CFR). The legislation includes the Resource Conservation and Recovery Act of 1976 (RCRA), the Superfund

¹ The California Health and Safety Code defines a hazardous material as, "...any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment." (California Health and Safety Code Section 25501).

² Environmental Data Resources (EDR), Inc., 2008. *The EDR Radius Map Report with Geocheck for Gilead, 335 Lakeside Drive [and vicinity]*, Inquiry Number: 23023196. August 25.

Amendments and Reauthorization Acts of 1986 (SARA), and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The U.S. EPA provides oversight for site investigation and remediation projects, and has developed protocols for sampling, testing, and evaluation of solid wastes.³

State. Three State agencies, described below, regulate hazardous materials and waste that may occur on or around the project site.

Department of Toxic Substances Control. In California, DTSC is authorized by the U.S. EPA to enforce and implement federal hazardous materials laws and regulations. California regulations pertaining to hazardous materials are equal to or exceed the federal regulation requirements. Most State hazardous materials regulations are contained in Title 22 of the California Code of Regulations (CCR). DTSC generally acts as the lead agency for soil and groundwater cleanup projects that affect public health, and establishes cleanup levels for subsurface contamination that are equal to, or more restrictive than, federal levels. DTSC has also developed land disposal restrictions and treatment standards for hazardous waste disposal in California.

State Water Resources Control Board. The State Water Board enforces regulations on how to implement underground storage tank (UST) programs. It also allocates monies to eligible parties who request reimbursement of funds to clean up soil and groundwater pollution from UST leaks. The State Water Board also enforces the Porter-Cologne Water Quality Act through its nine regional boards, including the San Francisco Bay Regional Water Quality Control Board, described below.

California Air Resources Board. This agency is responsible for coordination and oversight of State and local air pollution control programs in California, including implementation of the California Clean Air Act of 1988. CARB has developed State air quality standards, and is responsible for monitoring air quality in conjunction with the local air districts.

Regional and Local Agencies. The following regional and local agencies have regulatory authority over the proposed project's management of hazardous materials and waste.

San Francisco Bay Regional Water Quality Control Board. The Water Board and its nine regional boards, including the San Francisco Bay Regional Water Quality Control Board, provides for protection of State waters in accordance with the Porter-Cologne Water Quality Act of 1969. The Water Board can act as lead agency to provide oversight of sites where the quality of groundwater or surface waters is threatened, and has the authority to require investigations and remedial actions. The Water Board has also developed Environmental Screening Levels (ESLs) to help expedite the preparation of environmental risk assessments at sites where contaminated soil and groundwater have been identified. Data collected at a site can be directly compared to ESLs and the need for additional work evaluated.⁴

³ U.S. Environmental Protection Agency (U.S. EPA), 2008. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, information reviewed online at <http://www.epa.gov/epaoswer/hazwaste/test/main.htm>, August 19.

⁴ San Francisco Bay Regional Water Quality Control Board (Water Board), 2007. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Interim Final - November (as revised May 2008).

Bay Area Air Quality Management District. The BAAQMD has primary responsibility for control of air pollution from sources other than motor vehicles and consumer products (which are the responsibility of U.S. EPA and CARB). BAAQMD is responsible for preparing attainment plans for non-attainment criteria pollutants, control of stationary air pollutant sources, and the issuance of permits for activities including asbestos demolition and renovation activities (District Regulation 11, Rule 2).

San Mateo County Health Department, Environmental Health Division. The SMCEHD is the primary agency responsible for local enforcement of State and federal laws pertaining to hazardous materials management. In Foster City, SMCEHD is a Certified Unified Program Agency (CUPA), responsible for coordination of the Hazardous Materials Business Plan Program, local hazardous waste generator program, UST management, investigation of leaking USTs, and California Accidental Release Program for highly toxic, flammable, or explosive materials. SMCEHD also administers a County Household Hazardous Waste Program to educate the public about the dangers of toxic household wastes and to provide for proper disposal of household hazardous wastes.

(2) Lead, Asbestos, and Other Hazardous Building Materials. Prior to 1978, lead compounds were commonly used in exterior and interior paints. Lead is a suspected human carcinogen (i.e., may cause cancer), a known teratogen (i.e., causes birth defects), and a reproductive toxin (i.e., can cause sterility). Prior to the 1980s, building materials often contained asbestos fibers, also a known human carcinogen. Asbestos, used to provide strength and fire resistance, was frequently incorporated into insulation, roofing, and siding, textured paint and patching compounds used on wall and ceiling joints, vinyl floor tiles and adhesives, and water and steam pipes.

Polychlorinated biphenyls (PCBs) have been used as coolants and lubricants in transformers, capacitors, heating/cooling equipment, and other electrical equipment. PCBs have not been manufactured in the United States since 1977, but may still be found in older electrical equipment and other building materials, like light ballasts. PCBs have been associated with acne-like skin conditions in adults and changes in the nervous and immune system in children. PCBs are also known to cause cancer in laboratory animals and are probable human carcinogens.⁵ PCB or PCB-contaminated items require proper off-site transport and disposal at a facility that can accept such wastes.

Fluorescent lighting tubes and ballasts, computer displays, and several other common items containing hazardous materials (including mercury, a heavy metal) are regulated as “universal wastes” by the State of California. Universal waste regulations allow common, low-hazard wastes to be managed under less stringent requirements than other hazardous wastes. Management of other hazardous wastes is governed by DTSC hazardous waste rules.

(3) Worker Health and Safety. Worker health and safety is regulated at the federal level by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). The Federal Occupational Safety and Health Act of 1970 authorizes states (including California) to establish their own safety and health programs with OSHA approval. Worker health and safety protections in California are regulated by the California Department of Industrial Relations (DIR). The DIR includes the Division of Occupational Safety and Health (DOSH), which acts to protect workers from

⁵ Agency for Toxic Substances and Disease Registry, 2001. Toxic FAQs for Polychlorinated Biphenyls, February, <http://www.atsdr.cdc.gov/tfacts17.html>, information reviewed on August 22, 2008.

safety hazards through its California OSHA (Cal/OSHA) program, and provides consultant assistance to employers. California standards for workers dealing with hazardous materials are contained in CCR Title 8 and include practices for all industries (General Industrial Safety Orders), and specific practices for construction, and other industries. Workers at hazardous waste sites (or workers who may be exposed to hazardous wastes that might be encountered during excavation of contaminated soils) must receive specialized training and medical supervision according to the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations.⁶ Additional regulations have been developed for construction workers potentially exposed to lead⁷ and asbestos.⁸ Cal/OSHA enforcement units conduct on-site evaluations and issue notices of violation to enforce necessary improvements to health and safety practices.

(4) Electrical Transmission Lines/Electromagnetic Fields (EMFs). High-voltage electrical transmission lines, suspended by transmission towers, cross the project site just north of Reef Drive and are located northeast of the main southern portion of the project site on the north side of Vintage Lake. These electrical lines are located approximately 100 feet from the closest proposed development within the project site. Power lines in Foster City are contained in easements that preclude the development of permanent structures beneath them.⁹

Occupants of properties adjacent to the high-voltage electrical transmission lines are exposed to EMFs generated by these power lines, in addition to EMFs from electrical distribution lines, building wiring, appliances, and natural phenomena, including lightning or static electricity. The overall strength of EMFs dissipates quickly with distance from the source. In addition, there is a low, but measurable “background” level of EMFs in the environment that is not related to any particular human-made source. Typically, EMFs are measured at “background” levels about 3 to 4 feet away from an electrical appliance, 60 to 200 feet from an electrical distribution line, and about 300 to 1,000 feet from a transmission line.¹⁰

There has been public concern about the potential health effects associated with EMFs from human-made sources, such as transmission lines. Human cells have their own electric fields, and some laboratory studies have shown that these internal fields can be disrupted by exposure to even low-energy EMFs. However, determining what effects, if any, EMFs may have on living tissue over long periods of time has proved to be a difficult scientific challenge.

A 1999 review of the literature, prepared by the National Institute of Environmental Health Science (NIEHS), concluded that “the NIEHS believes that there is weak evidence for possible health effects from EMF exposures, and until stronger evidence changes this opinion, inexpensive and safe reductions in exposure should be encouraged.”¹¹ The California EMF Program, developed by the

⁶ Title 8, CCR Section 5192.

⁷ Title 8, CCR Section 1532.1.

⁸ Title 8, CCR Section 1529.

⁹ Foster City, 1993. General Plan, Chapter 7: Safety Element, adopted May 1995.

¹⁰ California Department of Public Health Services (CDPH), 1999. *Short Fact Sheet on EMF*, California EMF Program.

¹¹ National Institute of Environmental Health Science (NIEHS), 1999. Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields, Prepared in response to the 1992 Energy Policy Act. NIH Publication No. 99-4493.

California Public Utilities Commission (PUC), California Department of Health Services (DHS), and the Public Health Institute, completed a risk evaluation of EMFs in June 2002. Three DHS scientists evaluated existing EMF study data, in coordination with DHS toxicologists, physicians, and epidemiologists. Due to the lack of clear association between EMFs and health risks in the available data, the California EMF Program did not identify any specific policy measures to address potential risk of EMFs, and DHS made no policy recommendations. However, PUC advocates “no and low cost” EMF avoidance measures; this means minimizing EMF exposure when it is easy and inexpensive to do so.¹²

As no specific health effects of EMFs have been conclusively demonstrated, there are no health-based or regulatory risk standards for EMF exposure. The assessment of effects of EMFs in this EIR is therefore limited to the qualitative discussion in this subsection, and no impacts related to EMFs are identified.

(5) Biotechnology R&D Development and Wastes. Wastes generated during the course of biotechnology research and development (R&D) may include radioactive materials/waste and biohazardous waste. At the federal level, the Food and Drug Administration, U.S. EPA, and the U.S. Department of Agriculture regulate biotechnology research and product development, including genetically modified organisms that could affect the environment upon release. The U.S. Nuclear Regulatory Commission (NRC) has adopted a waste classification system for low-level radioactive wastes (LLRW) that could be generated during biotechnology R&D uses and requirements for disposal. The classification of LLRW is found in Title 10, Code of Federal Regulations, Part 61.55. There are also specific requirements for transport of radioactive wastes.

(6) Medical Waste Management. Medical wastes are generated or produced as a result of diagnosis, treatment, or immunization of humans, and/or the production or testing of biological materials, and are either considered biohazardous waste or sharps waste (e.g., used syringes). Cultures, blood and blood products, tissues, and body parts are considered medical wastes. The transportation and disposal of medical wastes at the project site are closely regulated under the California Department of Public Health Medical Waste Management Program (CMWMP), with regulatory oversight by the SMCEHD.¹³ The CMWMP includes requirements for facilities that generate large quantities of medical waste, waste haulers, containment and storage of medical waste, and enforcement.¹⁴

Pharmaceutical wastes may be classified as medical waste, hazardous waste or solid waste, and it is the responsibility of the generator to classify waste properly and dispose of it in accordance with applicable regulations. Generators of pharmaceutical medical waste must develop and implement a plan and procedure for properly managing and disposing of medical waste pharmaceuticals. This plan must be included as part of the facility’s Medical Waste Management Plan. The plan is required to be

¹² CDPH, 2002. *An Evaluation of the Possible Risks from Electric and Magnetic Fields from Power Lines, Internal Wiring, Electrical Occupations, and Appliances*. Final Report, California EMF Program. June.

¹³ State of California Health and Welfare Agency, 2007. *Medical Waste Management Program, Local Enforcement Agency Contacts*. California Department of Public Health.

¹⁴ California Department of Public Health, 2008. *The Medical Waste Management Act* (California Health and Safety Code, Sections 117600 – 118360) Accessed August 28, 2008 at: www.cdph.ca.gov/certlic/medicalwaste/Pages/default.aspx

used as a tool to assist the facility in communicating, with the medical waste enforcement agency, the status of the facility's compliance with the CMWMP.

(7) Medical and R&D Laboratory Construction Requirements. Design and construction requirements for laboratory environments, including hazardous or flammable materials use and storage, and hazardous or flammable fumes and exhaust systems, are specifically addressed by the California Building Code and the National Fire Code. Foster City has adopted the following codes, which are enforced by either the Building Division or the Fire Marshall:

- National Fire Code, National Fire Protection Association (NFPA)
- Uniform Fire Code (UFC), International Fire Code Institute (IFCI)
- California Fire Code (CFC) Title 24 Part 9, California Building Standards Commission
- California Code of Regulations Title 19, California Building Standards Commission
- Uniform Building Code (UBC), International Conference of Building Officials (ICBO)
- California Building Code (CBC) Title 24, California Building Standards Commission

The CFC requires that hazardous materials exhaust systems incorporate fire suppression systems, and impose use restrictions on the ducting of incompatible chemicals through a single system. A hazardous exhaust system is required wherever the handling of hazardous materials has the potential to create a vapor, gas, fume, mist or dust resulting in exposure to a material classified as a severe health hazard (life-threatening from a single short exposure), or exposure to materials classified as slight, moderate, or serious hazards in concentrations exceeding 1 percent of the median lethal concentration of the substance for acute inhalation toxicity.

Title 8 of the California Code of Regulations addresses occupational health and safety, and specifically addresses laboratory environments in Article 107 of Group 16 regulations, section 5139-5155, *Control of Hazardous Substances*. Subsection 5154.1 discusses requirements for the ventilation of laboratory fumes, including hood design and operation, air volume movement, and exhaust stack design. In addition, circumstances under which air dilution or air cleaning is required (such as scrubbing or air incineration), and decontamination procedures are described.¹⁵

b. Project Site Hazardous Materials Setting. The proposed Master Plan would remove up to eight of the existing buildings at the site. The eight buildings, with addresses of 320, 324, 331, 333, 346, 355, 366 and 368 Lakeside Drive, were built between 1986 and 1991. A combined *Phase I Environmental Site Assessment and Environmental Health and Safety Assessment (Phase I ESA/EHSA)*¹⁶ was completed in 2003 for the southern 33 acres of the 40-acre project site, and included the entire area of major activities for the Master Plan, including the area proposed for demolition and construction activities. The project applicant commissioned the Phase I ESA/EHSA in support of a due diligence investigation of the site. The report was prepared for two specific purposes:

¹⁵ California Code of Regulations, 2008. Occupational Health and Safety Codes. Website: www.dir.ca.gov. November 5.

¹⁶ Green Environment, Inc. (GEI), 2003. *Phase I Environmental Site Assessment/EH&S Assessment (Executive Summary)*, Vintage Park, Foster City Ca. Project No. M03001, Prepared for Carr, McClellan, Ingersoll, Thompson & Horn under confidential attorney-client privilege, used by permission. July 15.

to identify recognized environmental conditions¹⁷ for the 33-acre property; and to identify current tenant operations or activities that may pose a significant risk to human health and/or the environment, and identify any tenant activities that may be in non-compliance with applicable environmental health and safety statutes and regulations. The Phase I ESA/EHSA included a review of historical and current information sources, interviews with persons and agencies knowledgeable about the project site, a regulatory agency records review, City directory review, review of prior environmental site assessments, and a site reconnaissance. The Phase I ESA/EHSA did not include subsurface sample collection for chemical analysis.

(1) Historical and Current Land Uses and Potential for Hazardous Materials. The Phase I ESA/EHSA describes the site as having been occupied by tidal marshlands with meandering sloughs, until the area was diked and drained for agriculture around 1900. In 1963, the sloughs and ditches of the property were cleared and backfilled with compacted native soils to match the surrounding grade. In 1976, other low-lying areas were filled and compacted. From 1977 to 1979, several additional feet of fill were imported and compacted across the site, in preparation for eventual development. The project site remained undeveloped until 1986, when the first structure was erected. Construction of the remainder of the buildings was completed by 1991.¹⁸

(2) Subsurface Conditions. The project site is located near the western margin of San Francisco Bay. The topography of the project site is relatively level and is approximately 7 feet above mean sea level. The Phase I ESA/EHSA notes that the sources of the historical fill materials at the project site are undocumented, but may be dredge material from San Francisco Bay.¹⁹ The most recent fill materials came from local mountain quarries, and dredged sand from San Francisco Bay; the chemical composition of the fill materials was not reported.²⁰ A recent geotechnical investigation covering the south end of the project site reported that groundwater is encountered at approximately 3.0 feet below the existing grade.²¹ The geotechnical investigation identifies the southern portion of the site as being covered by 3.0 to 6.5 feet of fill material consisting of very stiff to hard sandy lean clay with gravel, underlain by soft to medium stiff, highly compressible Bay Mud to a depth of approximately 47 to 67 feet. Beneath the Bay Mud are alluvial deposits interbedded with dense sandy clays and stiff to very stiff clays, to the maximum depth tested of about 120 feet.²²

(3) Recent Hazardous Materials Uses and Adjacent Land Uses. The project site is currently occupied by office and laboratory uses (including R&D uses), as it was at the time of the

¹⁷ "Recognized environmental conditions" are the presence or likely presence of any hazardous substance or petroleum product on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum product in structures on the property, or into the ground, groundwater or surface water of the property. Recognized environmental conditions do not include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of enforcement action if brought to the attention of the appropriate governmental agencies.

¹⁸ GEI, 2003. op. cit.

¹⁹ Foster City, 2008. *Community Info, History of Foster City, Creating the Land*, accessed 6/8/07 at: http://www.fostercity.org/community_info/Creating-the-Land.cfm.

²⁰ GEI, 2003. op. cit.

²¹ Lowney Associates, 2005. *Geotechnical Investigation Gilead Sciences Research Expansion: NRB1, NRB2, and Annex Buildings, Foster City*. Report No. 347-66A. November 8.

²² *Ibid.*

2003 Phase I ESA/EHSA. To the west of the site is a residential neighborhood, to the north is Vintage Lake, the Electronics for Imaging (EFI) campus, and a golf course and open space along the shoreline of San Francisco Bay. To the northeast and east are office and light industrial districts similar to uses at the project site. To the south are Home Depot, the Hilton Garden Inn, and Bridgepointe Shopping Center.

In 2003, much of the project site was in use by Gilead; however, other tenants were present. The Phase I ESA/EHSA includes an inventory of these occupants and the types of business that were present. Several of the tenants are listed as small quantity generators of hazardous materials and Gilead is listed as a large quantity generator, indicating only that these generators use, transport, store, or treat such chemicals in their work. A current government database search indicates that no incidents regarding hazardous material releases were reported related to these users and no investigative oversight by regulatory agencies is underway or has occurred.²³

(4) Biohazardous Substances Use and Disposal. Current use of biohazardous materials by Gilead at the project site includes specimen and microbiological cultures, stocks of infectious agents, live and attenuated vaccines, blood and body fluids, sharps, and/or isolation waste. Staff is trained during the New Hire Orientation regarding waste segregation procedures, and must complete annual refresher courses. Technicians are trained in both chemical and waste disposal procedures.²⁴ Commercial autoclave equipment is used to sterilize laboratory equipment suitable for reuse; and separate labeled containers for sharps, infectious materials, and medical waste are maintained. A certified medical waste disposal service under contract with Gilead Corporation provides medical waste disposal service.²⁵ No animal testing is conducted or proposed at the Gilead Foster City campus.²⁶

(5) Findings, Conclusions and Recommendations of the Phase I ESA/EHSA. The Phase I ESA/EHSA included a review of reported spill incidents and notes that within the project site 15 documented hazardous materials releases were reported from 1988 to 2002. Six of the 15 events occurred outdoors either before or during site development, and consisted of spills or dumping of solvents or paint. In addition, two releases were hydraulic oil spills from elevator lifts in 1994. Finally, seven spills occurred inside Gilead lab facilities, and consisted of a liter or less of materials each. According to the Phase I ESA/EHSA, the lab spills were cleaned up immediately and clean-up materials were properly disposed. The seven interior spills did not result in contamination of soil or groundwater and were recorded in internal reports made available for review for preparation of the ESA/EHSA. The six outdoor spills were cleaned up when discovered, with contaminated soils removed and properly disposed, and confirmation samples were collected from the bottom of each of the six excavations. Laboratory analyses of the confirmation samples indicated removal of contaminated materials. The two hydraulic oil spills from the elevator facilities were documented and cleanup occurred. Post-removal confirmation sampling documentation was not present in Gilead's files, and the Phase I ESA/EHSA recommended additional investigation and sample collection to confirm that the cleanup was complete.

²³ EDR, 2008. op. cit.

²⁴ GEI, 2003. op. cit.

²⁵ McHugh, Laura D. P.E., 2008. Director, Environmental Health and Safety, Gilead Corp. Personal communication. July 14.

²⁶ Edwards, Michael, 2008. Pacific BioFacilities. Personal communication. August 11.

The Phase I ESA/EHSA notes that one of the former tenants at 320 Lakeside Drive used low-level radioactive isotopes under a radioactive materials use license. The Phase I ESA/EHSA indicates this use was decommissioned and that SMCEHD records show the permit was terminated in 2001. The Phase I ESA/EHSA also reports that a follow-up radiation survey conducted in 2003 indicates that no radiation was found in areas with the potential for contamination. Lastly, the Phase I ESA/EHSA notes that the HVAC ducts are not specifically mentioned as having been investigated.

The Phase I ESA/EHSA notes that three recognized environmental conditions were found at the site in 2003, and were conditionally rated “low” to “high” risk:

- Multiple releases of hydraulic oil from elevators, rated as a high risk condition
- Potential release of hydraulic oil from elevator equipment, rated as a high risk condition
- Presence of large quantities of undocumented fill at the site, rated as a low to moderate risk

Other environmental conditions at the site which, though not recognized environmental conditions, could pose an environmental risk, were also noted:

- Indication that in the past, chemicals may have been discharged to the sanitary sewer
- Oil leakage from emergency generators
- Oil and grease storage related to food preparation

Lastly, based upon a review of available documentation associated with nearby properties which have reported release of chemicals to soils and groundwater, the Phase I ESA/EHSA determined that there is a low potential for off-site chemical releases to affect the groundwater or soils on the project site.²⁷

Gilead undertook remediation of all soil and groundwater contamination identified in the Phase I ESA/EHSA, including the hydraulic oil spills, and completed remediation in early 2006 under the oversight of the SMCEHD; a letter of closure was issued by San Mateo County in late 2006.²⁸ Gilead also implemented new policies, procedures and systems, including drum storage facilities, to ensure that hazardous materials are not introduced to the sanitary sewer system. Gilead maintains a Wastewater Discharge Permit, issued by the City of San Mateo – Estero Municipal Improvement District, and performs sampling and self-monitoring to ensure compliance. Regarding the use of radioactive isotopes by a former tenant at 320 Lakeside Drive and the cleanup and closure of the site, Gilead notes that final closure reports were completed by the tenant and the reports were approved by the State of California, and filed with San Mateo County in 2003 and 2004.²⁹

(6) Hazardous Materials Business Plans. Gilead maintains a Hazardous Materials Business Plan (HMBP) for each of the eleven buildings (out of 17 on campus) that contain chemical storage facilities and/or fuel storage facilities (diesel for emergency generators). The HMBPs for each of the eleven buildings contain a description of business activities, spill prevention plan, emergency

²⁷ GEI, 2003. op. cit.

²⁸ Lang, Jeff, 2008. Director Facilities and Operations, Gilead Corp., Letter: *Requested Gilead Information/EIR – Existing Environmental Document*. July 25.

²⁹ Ibid.

response plan, training plan, closure plan, and Hazardous Materials Inventory Statement (HMIS). The plans are updated annually, as needed, and copies of the plans are filed with SMCEHD, Foster City Fire Department, and the Stan Mateo County – Estero Municipal Wastewater District. According to the HMBPs, all business activities involving hazardous materials are conducted inside buildings. No storage of raw materials occurs out of doors. There are no underground hazardous materials or waste storage tanks. Three aboveground waste storage tanks are in operation; each aboveground storage tank is indoors and within a secondary containment structure. None of the three aboveground storage tanks are within a building proposed for demolition. Emergency response and evacuation plans for the buildings are detailed, and incorporate prior arrangements for assistance with police, fire, and hospital personnel. Gilead has an on-site Emergency Response Team that has been trained in the handling of hazardous waste (RCRA and non-RCRA California hazardous waste) including emergency communications and inspections, and response to fires, spills, explosions and shutdown of operations.

30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

In addition, no building has above ground petroleum (fuel) storage tanks exceeding a combined 1,320 gallons of capacity.⁴¹ Two facilities, 310 and 322 Lakeside Drive, do not generate any hazardous waste, but do maintain HMBPs in support of diesel tanks for generators and/or battery back-up electrical systems and fire suppression chemicals. Of the remaining nine buildings for which a HMBP has been prepared, three (320, 324 and 346 Lakeside Drive) are proposed for demolition as part of the proposed project. The closure plan details from the HMBPs for the three buildings proposed for demolition are very similar, and include the following protocols:

- The San Mateo County Environmental Health Department will be notified at least 30 days prior to closure;
- All hazardous materials and waste will be packaged and disposed of in accordance with applicable local, State, and federal regulations;
- Areas where hazardous materials and/or wastes were stored and/or used will be cleaned, evaluated visually for residual materials, and tested as required by the SMCEHD; and
- All equipment for hazardous materials processing and/or hazardous waste storage will either be cleaned to acceptable standards and removed from the site, or disposed of as hazardous waste.

³⁰ Gilead, Inc., 2006a. *Hazardous Materials Business Plan, 310 Lakeside Drive, Foster City, CA*. June 21.

³¹ Gilead, Inc., 2006b. *Hazardous Materials Business Plan, 320 Lakeside Drive, Foster City, CA*. November 22.

³² Gilead, Inc., 2006c. *Hazardous Materials Business Plan, 322 Lakeside Drive, Foster City, CA*. June 21.

³³ Gilead, Inc., 2006d. *Hazardous Materials Business Plan, 324 Lakeside Drive, Foster City, CA*. June 1.

³⁴ Gilead, Inc., 2006e. *Hazardous Materials Business Plan, 335 Lakeside Drive, Foster City, CA*. April 1.

³⁵ Gilead, Inc., 2006f. *Hazardous Materials Business Plan, 342 Lakeside Drive, Foster City, CA*. April 1.

³⁶ Gilead, Inc., 2006g. *Hazardous Materials Business Plan, 344 Lakeside Drive, Foster City, CA*. April 1.

³⁷ Gilead, Inc., 2006h. *Hazardous Materials Business Plan, 346 Lakeside Drive, Foster City, CA*. April 1.

³⁸ Gilead, Inc., 2006i. *Hazardous Materials Business Plan, 353 Lakeside Drive, Foster City, CA*. April 1.

³⁹ Gilead, Inc., 2006j. *Hazardous Materials Business Plan, 357 Lakeside Drive, Foster City, CA*. April 1.

⁴⁰ Gilead, Inc., 2007. *Hazardous Materials Business Plan (revised), 362 Lakeside Drive, Foster City, CA*. July 16.

⁴¹ Fuel storage in excess of 1,320 gallons at a single location is subject to more stringent reporting and permitting requirements by the County.

(7) **Regulatory Agency Database Review.** A review of a recent report compiling search results for regulatory agency databases⁴² was completed for the site and vicinity, and indicates that there are no open investigations at the project site or within 1/8-mile of the site. The report notes that there are currently seven small quantity generators RCRA-SQG and one large quantity generator RCRA-LQG (Gilead Sciences) within a 1/8-mile radius of the project site; inclusion on the list only indicates generation, transport, use, or storage of hazardous materials and does not indicate a spill or agency action. There was a single California State Cortese list site, a single State Water Resources Control Board leaking underground storage tank (LUST) site, and a single Water Board Spills, Leaks, Investigations and Cleanup (SLIC) site within 1/8-mile of the project site. All three investigations have been closed by their respective agencies, indicating that they would not pose a risk to redevelopment of the project site.

c. **Foster City General Plan.** The 1993 Safety Element of the Foster City General Plan⁴³ contains the following safety goals, policies, and programs related to hazardous materials, fire, emergency preparedness, and EMF.⁴⁴

- **Safety Goals**

- *S-C: Protect from Fire and Dangerous Conditions.* Protect the community from unreasonable risk to life and property caused by fires and dangerous conditions.
- *S-D Prepare to Respond to Emergencies.* Minimize potential damage to life, environment and property through timely, well-prepared and well-coordinated emergency preparedness, response plans, and programs.

- **Safety Policies**

- *S-6 Minimize Loss of Life, Injuries, and Property Damage Due to Fires.* The City will minimize loss of life, injuries, and property damage due to fires through review of development proposals, public education, and maintenance of well-trained fire suppression personnel.
- *S-7 Hazardous Materials.* The City will protect the community from unreasonable risks associated with hazardous materials.
- *S-8 Electromagnetic Fields.* The City will monitor available information regarding possible health hazards of electromagnetic fields.
- *S-9 Emergency Response.* The City will prepare to respond to emergencies through the City's Emergency Plan, training, and other measures.

- **Programs**

- *S-i Use of Uniform Codes.* The City will adopt and enforce the most current uniform codes with additional local requirements as necessary tailored to Foster City (Responsible Agency, Building Division and Fire Department).
- *S-j Development Review for Fire Safety.* The City will review proposals for new and modified buildings to ensure that fire safety provisions are included as required by the most current uniform codes and local regulations (Responsible Agency, Fire Department, Building Department).

⁴² EDR, 2008. op. cit.

⁴³ City of Foster City, 1993, General Plan. op. cit.

- *S-l Annual Inspections for Fire Safety and Hazardous Materials.* The City will conduct annual inspections of businesses and multi-family dwellings in order to ensure compliance with fire safety and hazardous materials requirements (Responsible Agency, Fire Department).
- *S-o Electromagnetic Fields.* The City will monitor available information regarding possible health hazards of electromagnetic fields (Responsible Agency, Community Development Department).
- *S-p Emergency Response.* The City will prepare to respond to emergencies through the use of established procedures, programs of on-going training, periodic exercises of the City's Emergency Plan, and mutual aid agreements (Responsible Agency, All Departments).
- *S-q Emergency Plan.* The city will maintain the City's Emergency Plan indicating responsibilities and procedures for responding to an emergency (Response Agency, Fire Department).

d. Emergency Evacuation Plans. The City Council adopted the City Multi-Hazard Functional Plan (MFP) as the City's Emergency Plan. The MFP uses the Emergency Management System, which provides a framework for standardizing emergency response procedures in California. The MFP identifies emergency functions and responsibilities of different departments and evacuation routes for the orderly removal of people during various types of emergency situations. In the event of a local emergency confined to Foster City, in accordance with the Community Evacuation Plan (see Appendix D) the following steps would be taken to safely and expeditiously evacuate vehicles and pedestrians. The Community Evacuation Plan has not been adopted by the City, but would be used as guidance by City agencies during an emergency evacuation.

- Mutual aid would be requested from the California Highway Patrol (CHP), Caltrans, and neighboring agencies to stop all incoming traffic and provide assistance with traffic and crowd control;
- All arterial streets would be restricted to egress only, with all lanes traveling in the same direction (to effectively double the normal capacity of these streets): 1) East Hillsdale Boulevard (westbound); 2) Foster City Boulevard (northbound); 3) Shell Boulevard (northbound); 4) Edgewater Boulevard, north of Pitcairn (northbound); and 5) Edgewater Boulevard, south of Pitcairn Drive (southbound);
- Beach Park Boulevard would circulate in a clockwise direction in an effort to avoid cross traffic conflicts;
- Foster City Boulevard traffic would be directed to either Third Avenue west or SR 92 west;
- Shell Boulevard traffic would be directed via Metro Center east to SR 92 East, or west on East Hillsdale Boulevard to north on Edgewater Boulevard.
- Northbound Edgewater Boulevard traffic would be directed to East Hillsdale Boulevard westbound, SR 92 East, or Third Avenue.
- Southbound Edgewater Boulevard traffic (south of Pitcairn Drive) would be directed to Baffin Court and across the Belmont Slough fire road to Belmont/Redwood Shores.
- Traffic from the business areas north of SR 92 would be directed to either Third Avenue west or Fashion Island Boulevard west.

As available, equipment (such as portable barricades, vehicles and other traffic diversionary devices) would be used to help direct traffic in the manner specified above. In addition, traffic signals may be controlled to facilitate the smooth movement of traffic. Under the MFP, consideration would also be

given to normalizing traffic patterns once vehicles are outside the City limits and are operated on roadways controlled by other agencies.

The MFP also anticipates and plans for emergency evacuation on a regional scale. To that effect, Foster City executed a Memorandum of Understanding (MOU) for the San Mateo County Smart Corridors Project on November 3, 2008.⁴⁵ The Smart Corridors project would allow agencies within San Mateo County to work collaboratively to promote safe and effective transportation management and operations on local arterials and highways within San Mateo County during major traffic incidents. Although the MOU is intended to address the objectives and institutional framework of the Smart Corridors Project, it does not commit any agency to funding, or maintenance/operations responsibilities.

The expected benefits of the Smart Corridor Project for involved agencies include the ability to: 1) quickly identify the location of major traffic incidents in the County; 2) share real-time traveler information among agencies; 3) share cross-jurisdictional signal timing and operations data to better manage major traffic incidents on El Camino Real and local streets; 4) promote the safe and orderly flow of traffic through intelligent transportation systems; 5) coordinate traffic management plans among emergency service providers, cities, the County, and State agencies; and 6) safely direct the public and emergency responders on local streets and highways during major traffic incidents.

2. Impacts and Mitigation Measures

This section analyzes the impacts related to hazardous materials and public health and safety that could result from implementation of the proposed project. Criteria of significance are defined, which establish the thresholds for determining whether a project impact is significant. Potential hazardous materials and public health and safety impacts from the proposed project are then presented, with mitigation measures to reduce potential impacts to a less-than-significant level.

a. Criteria of Significance. A significant hazardous materials or public health and safety impact would occur if the project would:

- Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment.
- Create a significant hazard to the public or environment through exposure to hazardous materials present in soils, surface water, ground water, and/or building materials as a result of historical land uses in the project vicinity.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school.
- Be located on or adjacent to a site that is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would result in a safety hazard for people residing or working in the area.

⁴⁵ Foster City, 2008. City Council Resolution No. 2009-99.

- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.
- Result in an increased risk of exposure to wildland or urban fire hazards.
- Result in a safety hazard for people residing or working within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.
- Result in a safety hazard for people residing or working within the vicinity of a private airstrip.

b. Less-than-Significant Hazards and Hazardous Materials Impacts. The following discussion examines potential less-than-significant impacts of the proposed project.

(1) Routine Transport, Storage, Use, and Disposal of Hazardous Materials. Following construction of specific projects under the Master Plan, the proposed project would not result in significant impacts from the routine transport, use, or disposal of significant quantities of hazardous materials. The Fire Department and Building Inspection Division of the Community Development Department coordinate the review of building permits to ensure that hazardous materials requirements are met prior to construction, including required separation between hazardous materials and sensitive land uses, and proper hazardous materials storage facilities. Any businesses that transport, generate, use, and/or dispose of hazardous materials within the project site would also be subject to existing hazardous materials regulations, such as those implemented by SMCEHD (see Regulatory Framework, above) and hazardous materials permits from the Fire Department.⁴⁶ The Fire Department also conducts annual inspections for fire safety and hazardous materials management of businesses and multi-family dwellings, in accordance with the General Plan.⁴⁷ Low volumes of hazardous wastes generated from small businesses that qualify under SMCEHD rules are required to be disposed at the Tower Road Collection site by appointment under the SMCEHD Very Small Quantity Generator Program.⁴⁸ These measures would ensure that the proposed project would not result in significant impacts to health and safety from the routine transport, use, storage, or disposal of hazardous materials following construction.

(2) Release of Hazardous Materials into the Environment. There are a number of opportunities for the project to potentially release hazardous materials into the environment. The following discussion describes the times when the risks of release would be less than significant.

Closure of Business Activities. Closure of the three buildings scheduled for demolition for which HMBPs have been prepared would be managed in compliance with the closure plan details from the approved HMBPs for the three structures. Closure would be managed with oversight from the SMCEHD. All hazardous materials and waste would be packaged and disposed in accordance with applicable local, State, and federal regulations and areas where hazardous materials and/or wastes were stored and/or used would be cleaned, evaluated visually for residual materials, and tested as required by the County. All equipment for hazardous materials processing and/or hazardous waste storage would either be cleaned to acceptable standards and removed from the site, or disposed as hazardous waste (in conformance with regulatory requirements). The risks associated with release of

⁴⁶ These include biotechnology and high technology companies, or other commercial or light industrial businesses.

⁴⁷ Foster City, 1993. General Plan, op. cit.

⁴⁸ SMCEHD, 2008. Accessed 8/28/2008 at:
www.co.sanmateo.ca.us/smc/departments/home/0,,1954_191102_187814,00.html.

hazardous materials into the environment due to the closure of buildings as a result of the proposed project are therefore considered less than significant.

Building Demolition. Prior to 1978, lead compounds were commonly used in exterior and interior paints. Prior to the early 1980s, building materials often contained asbestos fibers. PCBs have been used as coolants and lubricants in transformers, capacitors, heating/cooling equipment, and other electrical equipment. PCBs have not been manufactured in the United States since 1977, but may still be found in older electrical equipment and other building materials like light ballasts. The project site was originally developed with structures starting in 1986, with development completed in 1991.⁴⁹ It is unlikely that lead, asbestos, or equipment containing PCBs were used during the original development of the project site. The risks associated with release of hazardous materials into the environment due to demolition as a result of the proposed project are therefore considered a less-than-significant impact.

Future Business Activities. The proposed project would replace general-use light industrial structures with modern purpose-built facilities. Up to seven new buildings are proposed. Three would be ten-story buildings dedicated to office space, and four would be for laboratory use. These new laboratory buildings (ranging in height from two to four stories) would be subject to SMCEHD requirements, provisions outlined in HMBPs prepared for the new facilities, and local, State, and federal laws and regulations regarding the transport, storage, use and disposal of hazardous materials. Research and development activities and the attendant use of hazardous materials and generation of hazardous waste are heavily regulated business activities. A major goal of the existing regulatory approach is the safeguarding of users, the general population, and the environment. The risks associated with release of hazardous materials into the environment as a result of future business activities are therefore considered a less-than-significant impact with compliance with statutory and regulatory requirements.

(3) Emit Acutely Hazardous Materials Within ¼-Mile of a School. A search of governmental databases and local maps indicates that no site serving sensitive receptors (the infirm, elderly, or children) is located within ¼-mile of the project site.⁵⁰ Similarly, local school district mapping does not indicate an existing or planned school located within ¼-mile of the project site.⁵¹ Therefore, the risks associated with emissions of acutely hazardous materials within ¼-mile of a school are considered a less-than-significant impact.

(4) Hazardous Materials Release Sites. A Phase I ESA/EHSA was prepared for 33 of the 40 acres of the project site, including the 33 acres that would be the focus of the Master Plan (the 7-acre portion of the project site north of Reef Drive would be largely unchanged as a result of the Master Plan). A Phase I ESA has not been prepared for the remainder of the project site. Regulatory agency database listings were reviewed for all site addresses within the project site as part of the preparation of this EIR. No active investigations of hazardous materials release sites within the project site or within ¼-mile of the site were identified on the list of hazardous materials sites compiled pursuant to Government Code section 65962.5. Potential safety hazards from hazardous materials release sites at and adjacent to the project site are therefore considered less than significant.

⁴⁹ GEI, 2003. op. cit.

⁵⁰ EDR, 2008. op. cit.

⁵¹ Foster City-San Mateo School District, 2008. Website: <http://www.smfc.k12.ca.us/map.html>. August 27.

(5) **Emergency Evacuation Plan.** The proposed project would not be expected to impair implementation of or interfere with any emergency response or evacuation plans in the vicinity of the project site. The proposed project involves development of a previously-developed parcel in an urbanized area. The City has established the MFP as the basis for all emergency response actions for City departments, which also includes evacuation plans and plan routes.⁵² The MFP and Community Evacuation Plan identify arterial streets in the vicinity of the project site that would be used for egress only, with all lanes traveling in the same direction (effectively doubling evacuation capacity), including northbound Foster City Boulevard and westbound East Hillsdale Boulevard. In addition, Foster City Boulevard traffic would be directed to either East Third Avenue westbound or SR 92 westbound. Lakeside Drive, which would be privatized as part of the Master Plan, is not critical for emergency evacuation (but would be available for evacuation, if necessary). In addition, the project would not interfere with evacuation plans for individual buildings prepared by the project sponsor. Potential impacts to emergency evacuation routes or emergency response plans from the proposed project are therefore considered less than significant. The Community Evacuation Plan is included as Appendix D.

(6) **Wildland Fires.** The project site, which is surrounded by urbanized uses, has not been identified as having a significant potential for wildland fires.⁵³ The proposed project would be required to conform to the California Fire Code and Uniform Building Code, and requirements of the Foster City Fire Department to reduce the potential for structural fires.

The proposed Master Plan would include office/commercial/light industrial structures ranging from 40 feet to a maximum of 162 feet in height.⁵⁴ Smoke management systems, including sprinkler systems, fire alarms, and other mechanical devices, and appropriate signage, are required in buildings in Foster City that are four stories or 40 feet in height. Results from systems tests must be submitted to the City before a building permit is issued.⁵⁵ The majority of the proposed development would therefore be fitted with these required fire safety devices, reducing the potential for fires and associated safety impacts. With compliance with the requirements identified above, the proposed project would not be expected to result in an increased risk of exposure to fire hazards, including wildland fires.

(7) **Aviation Hazards.** As described in Chapter IV, Planning Policy, the proposed project would be located near the San Carlos Airport and San Francisco International Airport (SFO).⁵⁶ The project site is not located near any private use airstrips.⁵⁷ The project site is located within the Airport Influence Area (AIA) Boundary for the San Carlos Airport, and requirements for real estate disclosure are mandatory. The AIA for the San Carlos Airport is divided into two areas, Areas A and B. Area B is defined as the area within a 9,000-foot radius of San Carlos Airport, while Area A is the

⁵² Foster City, 1993, General Plan, op. cit.

⁵³ Ibid.

⁵⁴ DES Architects, Engineers, 2008. Gilead Sciences Master Plan – Building Data. Project No. P2007.126.

⁵⁵ Foster City, 2008. Guidelines for Smoke Management Systems. Information reviewed online at: www.fostercity.org/Services/safety/fire/upload/Construction-Guidelines-Smoke-Control.pdf. August.

⁵⁶ Skyvector, 2008. Website: www.skyvector.com. May.

⁵⁷ Ibid.

remaining portion within the AIA outside of Area B. The City and County Association of Governments for San Mateo County Airport Land Use Commission requires a formal review of proposed projects located within Area B of the AIA for San Carlos Airport. This formal review would not be applicable to the proposed project because the project site is located within Area A, outside of the 9,000-foot radius that forms Area B of the San Carlos Airport.⁵⁸

The project site is not located within the obstruction chart for SFO, but is located within the approach surface to SFO.⁵⁹ The highest obstruction permitted within the project site is approximately 700 feet.⁶⁰ The building heights for the proposed project are well below this maximum permitted height, would not be expected to interfere with aircraft, and would therefore not be expected to pose a hazard to persons occupying structures. Further, the proposed project is not expected to include any land uses that would cause a hazard to air navigation within the vicinity of SFO.⁶¹ Impacts from the proposed project on aviation are therefore considered less than significant.

c. Significant Hazards and Hazardous Materials Impacts and Mitigation Measures. Two potentially significant impacts have been identified and are discussed below.

Impact HAZ-1: Upset and accidents involving hazardous materials releases and transport and use during construction activities could result in adverse effects to public health or the environment. (S)

Hazardous materials (e.g., fuels, lubricants, paints, adhesives) would be transported and used on-site for proposed construction and redevelopment activities. In addition, construction vehicles would be used on-site that could accidentally release hazardous materials, such as oils, grease, or fuels. It is likely that the construction contractor(s) would store these hazardous materials and vehicles on-site during the duration of construction activities. Accidental releases of hazardous materials could affect soil and/or groundwater quality, or could result in adverse health effects to construction workers, the public, and the environment. The following two-part mitigation measure would reduce this potential impact to a less-than-significant level.

Mitigation Measure HAZ-1a: The contractor(s) shall designate storage areas suitable for material delivery, storage, and waste collection. These locations must be as far away from catch basins,

⁵⁸ Revised Airport Influence Area Boundary for San Carlos Airport—Area B, approved by CCAG Board, October 14, 2004. ccag.ca.gov/plans_reports.html, reviewed online May 2007.

⁵⁹ Slope 40:1.

⁶⁰ San Francisco International Airport, not dated. Airport Obstruction Chart, San Francisco International Airport, Figure SFO-1, V-23; San Francisco International Airport/San Mateo County, not dated, Joint Land Use Study, County of San Mateo Airport Land Use Plan, San Francisco International Airport, FAR Part 77 Civil Airport Imaginary Surfaces Height Restrictions, Map SF0-4, V-22.

⁶¹ Land uses that would cause a hazard to air navigation within proximity to SFO include: 1) any land use that would direct a steady or flashing white, red, green, or amber color light toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in straight final approach toward a landing, other than FAA-approved navigational lights; 2) any land use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following take-off or engaged in a straight final approach toward a landing; 3) any use that would generate smoke or rising columns of air; 4) any land use that would attract large concentrations of birds within approach-climb out areas; and 5) any land use that would generate electrical interference that may interfere with aircraft communications or aircraft instrumentation. San Mateo County, 1996. Comprehensive Airport Land Use Plan, p. V-19.

gutters, drainage courses, and water bodies as feasible. All hazardous materials and wastes used or generated during project site development activities shall be labeled and stored in accordance with applicable local, State, and federal regulations. In addition, an accurate up-to-date inventory, including Material Safety Data Sheets, shall be maintained on-site to assist emergency response personnel in the event of a hazardous materials incident.

All maintenance and fueling of vehicles and equipment shall be performed in a designated, bermed area, or over a drip pan that will not allow run-off of spills. Vehicles and equipment shall be regularly checked and leaks shall be repaired promptly at an off-site location. Secondary containment shall be used to catch leaks or spills any time that vehicle or equipment fluids are dispensed, changed, or poured.

Mitigation Measure HAZ-1b: Emergency preparedness and response procedures shall be developed by the contractor(s) for emergency notification in the event of an accidental spill or other hazardous materials emergency during project site preparation and development activities. These procedures shall include evacuation procedures, spill containment procedures, and required personal protective equipment, as appropriate, in responding to the emergency. The contractor(s) shall submit these procedures to the City for approval prior to demolition or development activities.

Compliance with these mitigation measures may occur in coordination with compliance with the Storm Water Pollution Prevention Plan and Best Management Practices required for the proposed project (See Section V.E., Hydrology and Water Quality, for additional detail). (LTS)

Impact HAZ-2: Exposure of construction workers and the public to existing or previously unknown contamination in soil and/or groundwater, other safety hazards encountered during site grading and excavation activities, or exposure to hazardous materials following project development could result in adverse health effects. (S)

Gilead Sciences verified that the cleanup and closure of the location of use of radioactive isotopes by a former tenant at 320 Lakeside Drive was complete, and that final closure reports were completed by the tenant, approved by the State of California, and filed with San Mateo County in 2003 and 2004.⁶²

The 2003 Phase I ESA/EHSA identified three “recognized environmental conditions” related to the presence of hazardous materials contamination (other than hazardous building materials, described separately, below). “Recognized environmental conditions” is a term-of-art for Phase I ESAs. ASTM E-1527 defines recognized environmental conditions as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.” The project applicant has taken measures to remediate soil and water contamination resulting from two of these recognized environmental conditions related to hydraulic oil spills at two elevator locations. The third noted condition, of undocumented fill at the site, was noted to be a low risk hazard and has not been subject to further site-wide investigation. A geotechnical investigation for a recent building project at the south end of the project site notes that subsurface materials include

⁶² Lang, Jeff, 2008. op. cit.

a top layer of 3.0 to 6.5 feet of fill consisting of very stiff to hard sandy lean clay and gravel. Past land uses for the area include marshland (that was later filled), agricultural uses, and commercial uses. Some of the historical fill material used on-site is from unknown origin, but likely consists of dredged material from San Francisco Bay and fill excavated from quarries. Dredged material could contain hazardous materials resulting in adverse health effects for construction workers and general site workers, depending on the type and concentration of the contaminants and the duration of worker exposure.

New fill materials may be brought onto the project site following demolition of existing structures, paved areas, and landscaping. Existing fill materials at the project site that are geotechnically not suitable for reuse would be excavated, transported off-site, and replaced with properly compacted engineered fill. The source of any engineered fill to be brought on-site has not been identified. Imported fill containing hazardous materials could result in adverse health effects to construction workers and future users, depending on the type and identity of contamination, and the duration of exposure.

Significant quantities of other wastes (construction debris, soil, pavement) would also be generated and would be transported off-site for disposal/recycling in accordance with Foster City Ordinance 523. All hazardous materials (e.g., containers, cylinders, and emergency generators with above-ground tanks) would be transported off-site prior to demolition activities in accordance with SMCEHD's business closure requirements.

Despite the remediation actions noted above, previously unknown contaminated soil and/or groundwater or other hazards (e.g., tanks, drums) could be encountered during grading, excavating, or soil disturbance activities at the project site or at off-site locations, resulting in adverse health effects to construction workers. The severity of the health effects would depend on the contaminant(s), concentration, and duration of exposure.

The following three-part mitigation measure would reduce this potential impact to a less-than-significant level.

Mitigation Measure HAZ-2a: If previously unknown contaminated soil and/or groundwater is encountered at any time during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums, or other hazardous materials or wastes are encountered), the contractor(s) shall ensure that all appropriate response measures are taken to protect human health and the environment. A contingency plan for sampling and analysis of previously unknown hazardous substances shall be prepared by the contractor(s), with the approval of the City, prior to grading and earthwork activities.

As part of this contingency plan, soil and/or groundwater samples shall be collected by a qualified environmental professional (e.g., Professional Geologist, Professional Engineer) prior to further work in the area, as appropriate. The samples shall be submitted for laboratory analysis by a State-certified laboratory under chain-of-custody procedures. The analytical methods shall be selected by the environmental professional. The analytical results of the sampling shall be reviewed by a qualified environmental professional and submitted to the appropriate regulatory agency. The professional shall provide recommendations, as applicable, regarding soil/waste management, worker health and safety training, and regulatory agency notifications, in accord-

ance with local, State, and federal requirements. Work shall not resume in the area(s) affected until these recommendations have been implemented under the oversight of the City or regulatory agency, as appropriate.

Mitigation Measure HAZ-2b: Engineering fill brought on-site shall be demonstrated, by analytical testing, not to pose an unacceptable risk to human health or the environment. Threshold criteria for acceptance of engineered fill shall be selected based on screening levels and protocols developed by regulatory agencies for protection of human health and groundwater (e.g., Water Board Environmental Screening Levels (ESLs)⁶³). The engineered fill shall be characterized by a qualified environmental professional via representative sampling in accordance with U.S. EPA's SW-846 Test Methods,⁶⁴ and demonstrated to meet the threshold criteria above. The results of the sampling and waste characterization shall be submitted by the contractor(s) to the City Building Division for approval prior to transporting engineering fill onto the project site.

Mitigation Measure HAZ-2c: The contractor shall prepare a Waste Disposal and Hazardous Materials Transportation Plan prior to construction activities where hazardous materials or materials requiring off-site disposal would be generated. The Plan shall include a description of analytical methods for characterizing wastes, handling methods required to minimize the potential for exposure, and shall establish procedures for the safe storage of contaminated materials, stockpiling of soils, and storage of dewatered groundwater. The required disposal method for contaminated materials, the approved disposal site, and specific routes used for transport of wastes to and from the project site shall be indicated. The Plan shall be prepared and submitted to the City for approval prior to commencement of demolition or development activities. The Waste Disposal and Hazardous Materials Transportation Plan may be prepared as an addendum to the Waste Management Plan required by Ordinance 523. (LTS)

⁶³ Water Board, 2007. op. cit.

⁶⁴ USEPA, 2008. SW-846 Manual On-line. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. Accessed 8/28/08 at: www.epa.gov/SW-846/main.htm