10. HAZARDS AND HAZARDOUS MATERIALS

This EIR chapter describes known and potential public health and safety conditions on the project site and in the project vicinity (including hazardous materials), related potentially significant adverse public health impacts anticipated with implementation of the project, and associated mitigation needs.

10.1 SETTING

10.1.1 General Concerns

For purposes of this EIR, "hazardous materials" are defined as substances with certain chemical and physical properties that could pose a substantial present or future hazard to human health or the environment if improperly handled, stored, disposed, or otherwise managed.

If improperly handled, hazardous materials can result in public health hazards through human contact with contaminated soils or groundwater, or through airborne releases in vapors, fumes, or dust. There may also be a potential for accidental or unauthorized releases of hazardous materials that would pose a public health concern. For example, in the project site vicinity, soil and groundwater contamination from previous industrial uses is a potential concern.

Construction workers typically have the greatest risk of exposure to contaminated soil or groundwater. If contamination at a site remains undetected, workers and the public may be at risk of exposure if precautions are not taken during site development. Accidents or spills during transport of hazardous materials or wastes can also expose the general public and the environment to these substances.

10.1.2 Soil/Groundwater Contamination Potential

(a) On-Site Contamination Potential. The California Powder Works, eventually known as the Hercules Powder Company, operated on the project site from approximately 1879 until 1964, when production of fertilizer replaced production of dynamite and black powder. The fertilizer operation ceased in 1974. Through the 1980s and 1990s, portions of the waterfront area were developed with a number of new light industrial and office uses. During the period of 1993-1996, the remaining undeveloped portion of the waterfront area inland of the Union Pacific Railroad was remediated to a residential standard, while the San Pablo Bay side of the property was remediated to a commercial standard. In 1999, the Bixby Company, LLC, in coordination with the owner of the remaining approximately 167 acres of undeveloped waterfront lands, Oso Trabuco, formally known as Hercules Properties, Ltd., initiated a planning effort for the long-term reuse of this remaining property. That effort culminated in the Hercules Waterfront District Master Plan (WDMP), as adopted by the City on July 25, 2000, and as subsequently amended.

The Hercules General Plan Update EIR identified the "Hercules Properties Ltd." property as being on the 1990 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list and 1990 Resource Conservation and Recovery Act (RCRA) list. The CERCLIS list is a list of sites that are or have been investigated by the federal Environmental Protection Agency (EPA) for a release or threatened release of hazardous substances. The RCRA list covers facilities that generate, store, transport, treat, or dispose of hazardous wastes. The property was also listed as a potential hazardous waste site on the Cal-EPA Abandoned Sites Program Information System. The "Hercules Properties Ltd." property was described in these listings as known to be contaminated with ammonia, nitrates, oil, polynuclear aromatic hydrocarbons, and heavy metals. Additionally, the listings indicated that metals were detected in groundwater, surface water, and sediments at the site. The General Plan Update EIR identified a significant impact with respect to development in such areas with "hazardous installations" but noted that a Remediation Action Plan (RAP) to permit unrestricted use in the Waterfront District had been approved by the State Department of Toxic Substances Control (DTSC).[1]

On May 20, 1997, the State of California, Department of Health Services issued an Amendment to Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (Docket No. HAS 90/91-019), to Hercules Properties, Inc., Hercules Incorporated, and DuPont de Nemours and Company to characterize and then perform remedial action on 167 acres of the original manufacturing facility (the Hercules Properties, Ltd., Site). The DTSC Remedial Action Certification for the property (June 1997) states that the Waterfront District site was investigated between 1982 and 1992 to determine the extent of contamination. The investigation found contamination in both soils and groundwater. However, based on the results of toxicity studies for surface water and groundwater, DTSC determined that no further action was needed in those topic areas. However, since chemicals were present in groundwater, five-year reviews and monitoring as required by CERCLA ("Superfund" Act) were undertaken for groundwater to verify that the chemicals were not migrating to San Pablo Bay. This review process has since been completed.

Soil excavation, on-site treatment, and off-site disposal were conducted between July 1995 and March 1996, and backfilling and site restoration were completed in November 1996. For all parts of the Waterfront District inland of the railroad tracks, the soils were remediated (excavated) to unrestricted land use (i.e., residential) standards. On June 9, 1997, DTSC issued a Remedial Action Certificate. In addition, DTSC confirmed, in a letter of October 1999, that the Waterfront District has been remediated to a level that allows residential development, and that the planned development of residential uses in the district "will not result in health risks to residents or workers at the Site." The 1999 DTSC letter and Remedial Action Certificate are on file at the City Clerk, 111 Civic Drive.

Additional isolated pockets of contaminated areas have been encountered during the recent preliminary grading of the Waterfront District. These areas, while not identified during the previous site characterizations, have been remediated to residential standards under DTSC oversight.

---

[1]City of Hercules, City of Hercules General Plan Land Use and Circulation Elements Update and Redevelopment Plan Amendments Final Environmental Impact Report, *Volume I: EIR Text*, June 9, 1995, pages IV.G-7 and IV.G-10.

In addition, with Regional Water Quality Control Board (RWQCB) concurrence, DTSC has approved "no further action" for site groundwater in the Waterfront District, conditional to subsequent CERCLA ("Superfund") monitoring, which has now been completed. No further remediation action is required by these jurisdictional agencies for Waterfront District groundwater.

(b) Off-Site Contamination Potential. The Hercules General Plan Update EIR also noted possible hazards from development adjacent to the former Hercules Wastewater Treatment Plant site,[1] which is now separated from the current project site by the Refugio Neighborhood (Baywood) (see "City Property" on Figure 3.2 in chapter 3, Project Description, of this EIR). The plant has since been closed, and the plant property has been proposed for remediation and eventual educational (school) use. (See further discussion under subsection 10.3.1 which follows.)

10.1.3 Asbestos, PCB, and Lead-Based Paint Potential

The two remaining buildings on the project site--the former Administration Building and the former Clubhouse of the Hercules Powder Company--given their dates of construction and subsequent modification, are known to contain asbestos and lead-based paint. The two buildings could also contain polychlorinated biphenyls (PCBs) and/or mercury.

(a) Asbestos. The presence of asbestos-containing material (ACM) in a building does not necessarily mean that the building poses a health hazard. In many cases, asbestos within buildings is inaccessible or sealed within another material, and thus unable to cause a health hazard. However, asbestos fibers can be released during building renovation or demolition, unless proper precautions are taken.

The adverse health effects associated with asbestos exposure have been extensively studied. Studies have demonstrated that inhalation of asbestos fibers may lead to increased risk of developing respiratory or abdominal cancers. There is no known safe level of exposure.

The removal, handling, transport, and disposal of asbestos are heavily regulated at the federal, state, and local levels. These regulations are designed to minimize any exposure of onsite employees (e.g., construction workers) and the general public to asbestos. The U.S. Environmental Protection Agency (EPA) provides asbestos standards. The federal Occupational Safety and Health Administration (OSHA) and its state counterpart, CalOSHA, regulate various aspects of asbestos removal, handling, and disposal to ensure worker safety. Transport and disposal of asbestos-containing material is also regulated.

In 2008, a hazardous materials screening was conducted for the Administration Building and the Clubhouse, in order to evaluate the presence, or likely presence, of ACM, lead-based paint, PCB-containing equipment, mercury switches, and other interior building components that would require assessment or remediation.[2] Regarding ACM, detectable quantities were

---

[1]City of Hercules, City of Hercules General Plan Land Use and Circulation Elements Update and Redevelopment Plan Amendments Final Environmental Impact Report, *Volume I: EIR Text*, June 9, 1995, page IV.G-21.

[2]Environmental Consulting Services, Hazardous Materials Screening, Historic Hercules Administration Building, Hercules, California. Citadel Environmental Services, Inc.; August 5, 2008.

identified in wallboard joint compound materials in the Administration Building, and in wallboard joint compound materials and cement-like ceiling panels in the Clubhouse.

(b) PCBs. PCBs are another potentially hazardous class of compounds commonly found in the electrical transformers in older commercial buildings. While manufacture of PCBs has been banned since 1977, some older pieces of equipment may still contain PCBs. The 2008 hazardous materials screening located fluorescent lighting unit ballasts, which may contain PCBs, in both the Administration Building and the Clubhouse.

(c) Lead-Based Paint. Lead is a heavy, toxic metal. Lead-based paint was commonly used before 1960 and banned in 1979. The 2008 hazardous materials screening identified lead-based paint on door frames/trim and plaster in the Administration Building, and on door frames/trim and exterior paint on the Clubhouse.

(d) Mercury. Spent fluorescent light tubes and bulbs, thermostats, and other electrical equipment may contain heavy metals such as mercury that, if disposed of in landfills, can leach into soil or groundwater. Mercury can also be present in traps in the plumbing of older buildings in which mercury-containing equipment has been used. The 2008 hazardous materials screening did not locate any electrical transformers or mercury-containing switches in either the Administration Building or the Clubhouse.

In addition, no evidence of underground storage tanks, hazardous materials/waste use or disposal, or surface impoundments was identified in either building.

10.2 PERTINENT PLANS AND POLICIES

CEQA requires an EIR to identify the plan and policy setting within which the project is proposed and discuss any inconsistencies between the proposed project and these applicable plans and policies (CEQA Guidelines section 15125[d]). This section and upcoming section 10.3 (Impacts and Mitigation Measures) provide that discussion.

10.2.1 Regulatory Agencies

The following federal, state, regional, and local agencies have regulatory authority for the handling and management of hazardous materials/wastes within Contra Costa County.

(a) Environmental Protection Agency. The federal Environmental Protection Agency (EPA), Region IX, regulates chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; protects workers and the community (along with CalOSHA--see below); and integrates the federal Clean Water Act and Clean Air Act into California legislation.

(b) Federal Occupational Health and Safety Administration. The federal Occupational Health and Safety Administration (OSHA) establishes and enforces regulations related to health and safety of workers exposed to toxic and hazardous materials. In addition, OSHA sets health and safety guidelines for construction activities and manufacturing facility operations.

(c) California Occupational Safety and Health Administration. The California Occupational Safety and Health Administration (CalOSHA) is responsible for promulgating and enforcing health and safety standards and implementing federal OSHA laws.

(d) State of California Water Quality Control Board. The Regional Water Quality Control Board (RWQCB), San Francisco Region, protects surface and groundwater quality from pollutants discharged or threatened to be discharged to the waters of the state. The RWQCB issues and enforces National Pollutant Discharge Elimination System (NPDES) permits.

(e) California Department of Toxic Substances Control. The California EPA, Department of Toxic Substances Control, regulates hazardous substances and wastes, oversees remedial investigations, protects drinking water from toxic contamination, and warns the public of potential exposure to listed carcinogens.

(f) Bay Area Air Quality Management District. The Bay Area Air Quality Management District (BAAQMD) is responsible for the permitting of industrial air emissions and sets and enforces air quality standards.

(g) Contra Costa County. The Contra Costa County Health Services Department, Hazardous Materials Programs Division, is a State-Certified Unified Program Agency (CUPA) and implements program elements that address hazardous materials business plans, underground storage tanks, aboveground storage tanks, the risk management prevention program for acutely hazardous materials, Uniform Fire Code requirements, and hazardous waste on-site treatment by generators.

(h) City of Hercules. The City of Hercules manages hazardous materials through the Hercules Hazardous Waste Management Plan, an element of the Hercules General Plan. Relevant General Plan objectives, policies, and programs are listed in subsection 10.2.3 below.

The Rodeo-Hercules Fire District (RHFD), through its administration and enforcement of the Uniform Fire Code (UFC), regulates the use, storage, and handling of hazardous materials. For example, Section 105 of the UFC specifies the maximum quantities of specified hazardous materials permitted in a building.

10.2.2 Regulation of Hazardous Building Components

As discussed above, structural building components, particularly in older buildings, sometimes contain hazardous materials such as, among others, asbestos, polychlorinated biphenyls (PCBs), lead, and mercury. These materials are subject to the following various regulations:

(a) Asbestos. Asbestos is regulated both as a hazardous air pollutant and as a potential worker safety hazard. Regulations formulated by the Bay Area Air Quality Management District (BAAQMD) and CalOSHA restrict asbestos emissions from building 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, and 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; and require notice to federal and local government agencies prior to beginning building demolition or renovation activity that could disturb asbestos.

(b) PCBs. DTSC classifies PCBs as a hazardous waste when concentrations exceed 5 parts per million (ppm) in liquids or 50 ppm in non-liquids. PCB production in the United States ended in 1977. Before that time, PCBs were used as coolants and lubricants in transformers, capacitors, and other electrical equipment. For example, televisions, refrigerators, and fluorescent light ballasts manufactured before January 1, 1978 may contain PCBs.[1] Such items (if manufactured before 1978) are regulated as hazardous waste and must be transported and disposed of as hazardous waste.

(c) Lead. CalOSHA standards establish a maximum safe exposure level for various 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 removal of lead-containing building materials must be performed by state-certified contractors who 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 removed from the building debris.

(d) Mercury. Spent fluorescent light tubes and bulbs, thermostats, and other electrical equipment may contain heavy metals such as mercury 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 therefore must be managed in accordance with hazardous waste regulations. Elemental mercury waste is considered hazardous. Mercury can also be present in traps in the plumbing of older buildings in which mercury-containing equipment has been used.

10.2.3 City of Hercules General Plan

Objectives, policies, and programs from the Hercules General Plan that are pertinent to consideration of proposed project and its potential public health and safety impacts are listed below. Where the proposed project is found in this EIR to be potentially inconsistent with one or more of these City-adopted objectives, policies, or programs, a potentially significant environmental impact and one or more associated mitigations are identified for incorporation into the project to reduce the impact and better implement the General Plan. Otherwise, the proposed project is considered consistent with the objectives, policies, and programs listed below.

The Hercules Hazardous Waste Management Plan, an element of the Hercules General Plan, contains the following objective, policies, and program relevant to the potential public health and safety impacts of the proposed project:[2]

---

[1]Department of Health and Human Services, Agency for Toxic Substances & Disease Registry, "Polychlorinated Biphenyls," http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=26, viewed January 26, 2010.

[2]City of Hercules, Hercules General Plan, *Hazardous Waste Management Plan Element*, approved by the City Council in December 1990, pages 14, 19, and 22.

- *Oppose increases of hazardous waste treatment, storage or disposal within the city limits unless such activities are consistent with this Plan, and laws and ordinances of the City of Hercules.* (Objective)

- *To enhance information submitted by local businesses regarding the generation, storage, transport and disposal of hazardous waste within the city limits of Hercules upon application or renewal of city business licenses.* (Policy)

- *To encourage waste minimization by local businesses through source reduction, product substitution, development of alternative technologies, recycling or other effective means.* (Policy)

- *Enact a requirement for all generators or handlers of hazardous materials above a specified minimum (consistent with AB 2185 (1986) and AB 3777 (1989)) to provide the City with an on-file Hazardous Waste Business Plan and Risk Management and Prevention Plan. Generators and handlers subject to this requirement are those who generate or handle more than 55 gallons (liquid), 500 pounds (solids), or 200 cubic feet (gas at standard temperature and pressure) of hazardous materials annually. More detailed questionnaires regarding storage and handling of hazardous substances should be issued to each applicant for a City business license and issuance of the license should be contingent upon satisfaction of city requirements and ordinances pertaining to handling and storage of hazardous materials and waste.* (Program)

10.2.4 City of Hercules Waterfront District Master Plan (WDMP)

The Waterfront District Master Plan (WDMP) contains the following policies specifically relevant to hazards and hazardous materials:

- *The principal business use of all Flex Use spaces shall conform to the requirements of the B occupancy classification of the California Building Code, and shall not exceed 500 net square feet. Any use classified as an "H occupancy" is prohibited. Notwithstanding the requirements of the B occupancy classification, the retail sale of goods and services produced on the premises is permitted, and shall not be classified as an M occupancy. The retail sale of goods produced off-premises is also permitted if such sale is incidental to the primary business, or if the primary business adds significant value to the goods produced off-premises.*

  [The California Fire Code defines "Group B Occupancies" as those that include, "buildings, structures, or portions thereof, for office, professional or service-type transactions, which are not classified as Group H Occupancies." Group B Occupancies include business occupancies and professional services, such as attorney, dentist, physician, and engineer. The California Fire Code defines a "Group H Occupancy" as including, "buildings or structures, or portions thereof, that involve the manufacturing, processing, generation or storage of materials that constitute a high fire, explosion or health hazard." The California Fire code specifies different "divisions" of Group H Occupancies and specifies those hazardous materials that pose a high fire hazard, explosion or health hazard. A "Group M Occupancy" includes, "buildings, structures, or portions thereof, used for the display and sale of merchandise, and involving stocks of goods, wares or merchandise incidental to such purposes and accessible to the public. Mercantile occupancies shall include but not be

limited to, the following: department stores; drug stores; markets; paint stores without bulk handling; shopping centers; sales rooms; and, wholesale and retail stores.]

- *Prior to the initiation of any non-residential use, a Business License and Live-Work License shall be issued by the City of Hercules.*

- *To obtain a Live-Work License, the applicant shall submit to the City information regarding the nature of the business, the goods and services begin sold, and a detailed description of the process by which any goods will be produced on the premises. In order to approve the application, the Director shall determine that the conduct of the proposed business will not create "Adverse Impact." The Director may Approve, Disapprove, or Conditionally Approve the application, the Director may require the applicant to submit additional information or, the Director may refer the application to the Planning Commission. The Director's determination may be appealed by the applicant to the Planning Commission.*

- *Adverse Impact: The negative consequences of a building use on adjacent lots, usually as a result of noise, vibration, odor, pollution, or socioeconomic disruption. The noise level at the property line shall not exceed that of traffic noise at 25 mph. Negative consequences confined within the lot boundary are not considered to create Adverse impact.*

10.3 IMPACTS AND MITIGATION MEASURES

10.3.1 Significance Criteria

Based on the CEQA Guidelines, the proposed project would be considered to have a significant hazards or hazardous materials impact if it would directly or indirectly:[1]

(a) create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

(b) create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

(c) emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

(d) be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment;

(e) for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;

[1]CEQA Guidelines, 2010, Appendix G, Items VII(a-h).

(f) for a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area;

(g) impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

(h) expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The project would have no impact in relation to criterion (c), since there are no existing or proposed schools within a quarter mile of the project site. Existing schools serving the project vicinity include Lupine Hills Elementary, Hanna Ranch Elementary, Ohlone Elementary, Hercules Middle School, and Hercules High School. Based on a review of published maps, none of these schools is within a quarter mile of the project site.

The project would have no impact in relation to criteria (e) and (f), since the project site is not located within an airport land use plan or within two miles of a public airport, and there are no private airstrips in the project site vicinity.

Criterion (g), regarding interference with emergency response or evacuation plans, is addressed in chapter 15, Public Services and Utilities, of this EIR.

The project would have no impact in relation to criterion (h), since the project site is located in an urbanized area with almost no wildland fire potential. The Hercules General Plan does not identify any fire hazard areas, and the Hercules General Plan Update EIR does not identify any impacts with respect to wildland fire hazard.

10.3.2 Impacts and Mitigation Measures

Impact 10-1: Potential Exposure to Existing Hazardous Materials Contamination. The project site and surrounding vicinity may contain isolated areas of contamination from past industrial (powder and fertilizer company) use or other sources that could pose a safety hazard for workers, residents, or other occupants of the site. As discussed in subsection 10.1.2 above, while the project site and surrounding properties have historically been used for industrial purposes, soil and groundwater contamination has been remediated in accordance with regulatory requirements. Though not anticipated, it is conceivable that grading and construction on the project site may encounter additional isolated pockets of contaminants similar to those previously encountered at other areas of the Waterfront District. This possibility represents a ***potentially significant impact*** (see criterion [b] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-1. If additional contaminants are encountered, the affected areas would be remediated to residential standards. The applicant shall comply with all applicable existing state- and county-mandated site assessment, remediation, removal, and disposal requirements for soil, surface water, and/or groundwater contamination. In particular, these include the requirements of Contra Costa County, the Regional Water Quality Control Board (RWQCB), and the California Department of Toxic Substances Control (DTSC). DTSC, as lead regulatory agency, would provide oversight of the clean-up.

Implementation of these measures would involve the following steps:

(a) Soil Contamination. In order to mitigate potential health hazards related to construction personnel or future occupant exposure to soil contamination, the applicant shall complete the following steps for each area proposed for disturbance as part of project-proposed construction activity on the site:

Step 1. Investigate the area to determine whether it has a record of hazardous material discharge into soils, and if so, characterize the area according to the nature and extent of soil contamination that is present before development activities proceed in that area.

Step 2. Based on the proposed activities, determine the need for further investigation and/or remediation of the soils conditions in the contaminated area. For example, if the area is slated for commercial land use, the majority of the area would be paved and there would be little or no contact with contaminated soil. Industrial clean-up levels would likely be applicable. If the slated development activity could involve human contact with soils, such as may be the case with residential use, then Step 3 should be completed. If no human contact is anticipated, then no further mitigation is necessary.

Step 3. If it is determined that extensive soil contact would accompany the intended use of the area, undertake a Phase II investigation, involving soil sampling at a minimum, at the expense of the property owner or responsible party. Should further investigation reveal high levels of hazardous materials in the area soils, mitigate health and safety risks according to City of Hercules, Contra Costa County Health Services Department, and Regional Water Quality Control Board (RWQCB) regulations. This would include site-specific health and safety plans prepared prior to undertaking any building or utility construction. Also, if buildings are situated over soils that are significantly contaminated, undertake measures to either remove the chemicals or prevent contaminants from entering and collecting within the building. If

(continued)

Mitigation 10-1 (continued):

remediation of contaminated soil is infeasible, a deed restriction would be necessary to limit site use and eliminate unacceptable risks to health or the environment.

(b) Surface Water or Groundwater Contamination. In order to reduce potential health hazards due to construction personnel or future occupant exposure to surface water or groundwater contamination, the applicant shall complete the following steps for each area proposed for disturbance as part of project-proposed construction activity on the site:

Step 1. Investigate the area to determine whether it has a record of hazardous material discharge into surface water or groundwater, and if so, characterize the area according to the nature and extent of contamination that is present before development activities proceed in that area.

Step 2. Install drainage improvements in order to prevent transport and spreading of hazardous materials that may spill or accumulate on-site.

Step 3. If investigations indicate evidence of chemical/environmental hazards in site surface water and/or groundwater, then mitigation measures acceptable to the RWQCB would be required to remediate the area prior to development activity.

Step 4. Inform construction personnel of the proximity to recognized contaminated sites and advise them of health and safety procedures to prevent exposure to hazardous chemicals in surface water/groundwater.

Compliance with these requirements would be expected to assure that this possible health and safety impact would be ***less-than-significant***.

Hazardous Materials Associated with Proposed Project Land Uses. The residential, retail, and office uses proposed by the project would not be expected to involve the routine transport, use, or disposal of hazardous materials, except for the use of common household products generally stored in small, sealed containers. Therefore, project residential, retail, and office uses would not constitute a significant hazard to the public or the environment.

The potential for the proposed flex-space on the ground floor of the project live-work units to create a hazard to the residents living above and near these uses if such businesses use hazardous materials would be mitigated to a less-than-significant level by required compliance with the provisions of the adopted Hercules General Plan, Waterfront District Master Plan (see especially section 3.0--form-based code), California Building Code, and California Fire Code.

Compliance with these established requirements would assure that this possible health and safety impact would be ***less-than-significant***.

Mitigation. No significant additional adverse impact has been identified; no additional mitigation is required.

Impact 10-2: Potential Asbestos, PCB, and/or Mercury Exposure. Renovation and adaptive reuse of the existing former Administration and Clubhouse buildings on the site, as proposed by the project, could involve removal or disturbance of asbestos-containing material (ACM), PCBs, and/or plumbing, which could expose construction workers and the general public to friable asbestos, PCBs, and/or mercury. This possibility represents a ***potentially significant impact*** (see criterion [b] in subsection 10.3.1, "Significance Criteria," above).

The 2008 hazardous materials screening reports noted that sampling was limited to representative locations in the Administration and Clubhouse buildings, that additional hazardous materials may be present within wall cavities, and that areas not sampled should be presumed to include hazardous materials similar to those sampled. The 2008 reports also recommend a more comprehensive survey prior to renovation activities on the two buildings.

Mitigation 10-2. Ensuring proper identification and removal of ACM, PCBs, and/or mercury requires the project applicant to complete the following steps:

Step 1. Thoroughly survey the project site and existing structures for the presence of ACM, PCBs, and mercury. The survey shall be performed by a person who is properly certified by OSHA and has taken and passed an EPA-approved building inspector course. [This step has been partially completed.]

Step 2. Prepare a written Asbestos Abatement Plan describing activities and procedures for removal, handling, and disposal of these building elements using the most appropriate procedures, work practices, and engineering controls.

Step 3. Provide the asbestos survey findings, the written Asbestos Abatement Plan (if necessary), and notification of intent to the City of Hercules and Contra Costa County Health Services Department at least ten days prior to commencement of work.

Step 4. Remove any mercury-containing electrical equipment/plumbing prior to building renovation, in accordance with adopted regulations.

Implementation of these requirements would be expected to reduce the potentially significant health and safety impacts associated with project-related disturbance and removal of asbestos, PCBs, and mercury to a ***less-than-significant level***.

Impact 10-3: Lead-Based Paint Exposure. If lead-based paint has delaminated (split into thin layers) or chipped from surfaces, airborne lead particles could be released during project-proposed renovation and adaptive reuse of the Administration and Clubhouse buildings on the site. This possibility represents a ***potentially significant impact*** (see criterion [b] in subsection 10.3.1, "Significance Criteria," above).

Mitigation 10-3. City Design Review and CalOSHA regulations shall be applied, and the project applicant shall implement the following procedures in accordance with these CalOSHA regulations:

- Notify the City of Hercules Building Division prior to starting work, describing the nature, location, and schedule of the work; and
- Post a sign at all work locations where lead containment is required, stating that lead-based paint abatement is in progress and public access is prohibited.

Lead abatement performance standards are included in the *Guidelines for Evaluation and Control of Lead-Based Paint Hazards* (U.S. Department of Housing and Urban Development). Accordingly, HEPA vacuums may be required for abrasive blasting, water blasting, scraping, or sanding. Burning, torching, and similar activities are prohibited. Following completion of lead-based paint abatement, all visible lead-based paint particles must be removed from the site.

The City of Hercules Building Division may inspect lead-based paint abatement activities at any time during construction. The Building Division is also responsible for addressing citizen complaints related to lead-based paint abatement activities and may issue a Notice of Violation, a Stop Work order, or a fine.

Implementation of the established regulations outlined above would result in a ***less-than-significant impact*** associated with lead-based paint exposure.

Cumulative Hazards and Hazardous Materials Impacts. In addition to the project, other development unrelated to the project would continue to occur elsewhere in the city, county, and subregion, cumulatively increasing the number of people potentially exposed to hazardous materials. It is unlikely, however, that hazardous materials risks associated with other development in the city, county, or subregion would combine with those associated with the project. In addition, implementation of the policies, regulations, and mitigation measures described in this EIR chapter would ensure that impacts associated with the project would be reduced to less-than-significant levels. For these reasons, cumulative public health and safety impacts are considered ***less-than-significant***, and no additional mitigation measures are required.

Mitigation. No additional significant impact has been identified; no additional mitigation is required.