

Section 3.5 | Hazards/Hazardous Materials

3.5.1 Introduction

This section describes the affected environment for hazards and hazardous materials, the regulatory setting associated with hazards and hazardous materials, the impacts related to hazards and hazardous materials that would result from the project, and the mitigation measures that would reduce these impacts.

The following impact determinations were made in the County of Los Angeles Initial Study Checklist for the proposed project.

- Although the proposed project is located in a seismically active area and would be subject to seismic shaking, landslides, liquefaction, and other seismic related hazards, the construction of the proposed project would not create a substantial risk to life or property because it does not include habitable structures or other sensitive structures.
- Although the proposed project is located in some areas containing steep topography (slopes over 25%), because steep slopes are not compatible with bicycle use, these areas are avoided by the proposed project.
- Although the proposed project is located in some areas with expansive soils, the proposed project does not include habitable structures and, therefore, would not create a substantial risk to life or property from expansive soils.
- Although the proposed project is located in some areas containing Very High Fire Hazard Severity Zones (Fire Zone 4), the proposed project does not include habitable structures and, therefore, would not create a substantial risk to life or property from fire.
- Although in some cases the proposed project is located in areas with high noise levels, use of bikeways is a transitory rather than stationary use; therefore, the proposed project would not result in substantial exposure to high noise hazards. In addition, the proposed project would not cause high noise levels.
- Small amounts of hazardous materials may be used, transported, produced, handled, or stored on the proposed project site during construction of bikeways. However, all materials would be handled in compliance with federal, state, and local regulations. Operation of bikeways would not require use, transport, production, handling, or storage of hazardous materials. In addition, the proposed project would not involve use of pressurized tanks or the storage of hazardous wastes.

These issues are not discussed further in this section. For flood hazards, see Section 3.3, Hydrology/Water Quality. For hazards related to air quality emissions, see Section 3.7, Air Quality/Greenhouse Gas Emissions.

3.5.2 Regulatory Setting

3.5.2.1 Federal

Resource Conservation and Recovery Act

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act (RCRA) (42 U.S. Government Code [USC] 6901 et seq.). RCRA was established in 1976 to protect human health and the environment, reduce waste, conserve energy and natural resources, and eliminate generation of hazardous waste. Under the authority of RCRA, the regulatory framework for managing hazardous waste—including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste—is found in 40 Code of Federal Regulations [CFR] 260–299. Other applicable federal laws and regulations include the following.

- **49 CFR 172 and 173:** These regulations establish standards for the transport of hazardous materials and hazardous wastes. The standards include requirements for labeling, packaging, and shipping hazardous materials and hazardous wastes, as well as training requirements for personnel completing shipping papers and manifests.
- **40 CFR Subchapter I—Solid Wastes:** These regulations implement the provisions of the Solid Waste Act and RCRA. They also establish the criteria for the classification of solid waste disposal facilities (landfills), hazardous waste characteristic criteria and regulatory thresholds, hazardous waste generator requirements, and requirements for management of used oil and universal wastes.

3.5.2.2 State

Hazardous Waste Control Act

The Department of Toxic Substances Control is responsible for the enforcement of the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which creates the framework under which hazardous wastes are managed in California. The law provides for the development of a state hazardous waste program that administers and implements the provisions of the federal RCRA cradle-to-grave waste management system in California. It also provides for the designation of California-only hazardous waste and development of standards that are equal to or, in some cases, more stringent than federal requirements.

Environmental Health Standards for the Management of Hazardous Waste

The Environmental Health Standards for the Management of Hazardous Waste (22 California Code of Regulations [CCR] Div. 4.5, Section 66001 et seq.) establish requirements for the management and disposal of hazardous waste in accordance with the provisions of the California Hazardous Waste Control Act and federal RCRA.

3.5.2.3 Local

Los Angeles County General Plan

General Goals and Policies

This section contains goals and policies from the general goals and policies of the *County of Los Angeles General Plan* related to safety and, more specifically, hazardous materials safety (County of Los Angeles 1980a).

General Goals

- Prevent or minimize personal injury, loss of life, and property damage due to natural or man-made disasters.
- Effective County emergency response management capabilities.

Plan Policies

- Enforce stringent site investigations for factors related to hazards.
- Limit development in high hazard areas such as floodplains, high fire hazards areas, and seismic hazard zones.
- Facilitate the safe transportation, use, and storage of hazardous materials in the County.
- Encourage the reduction or elimination of the use of hazardous materials.
- Support comprehensive lead paint abatement efforts.
- Remediate brownfield sites to limit community exposure to potential toxins.
- Prohibit and enforce restrictions on public access to important energy sites.
- Promote safe, biodegradable alternatives to chemical-based products in households.

3.5.3 Environmental Setting

3.5.3.1 Regional Setting

As stated in the project description, Los Angeles County is geographically one of the largest counties in the nation with approximately 4,083 square miles. The County stretches along 75 miles of the Pacific Coast of Southern California and is bordered to the east by Orange and San Bernardino Counties, to the north by Kern County, and to the west by Ventura County. Los Angeles County also includes the offshore islands of Santa Catalina and San Clemente. Los Angeles County is heavily urbanized, and most of the undeveloped land that remains is within unincorporated areas which make up approximately 65% of the County's total land.

Because much of Los Angeles County is heavily urbanized and also contains sparsely populated unincorporated land, it is anticipated that the proposed project will encounter a variety of land uses including industrial, commercial, residential, agricultural, and mixed use areas. This variation in land

uses can potentially lead to both naturally occurring and human-related hazardous materials hazards, which are discussed below.

Naturally Occurring Hazardous Materials

Natural hazards refer to those hazards related to the unique chemical makeup of the earth materials that are present within the project area. In this context, natural hazards does not include physically-induced phenomena such as ground shaking related to earthquakes, landslides, tsunamis, etc. Natural hazards also do not include hazards related to human activities. Three natural hazards are generally considered in construction-related projects: asbestos, radon, and mercury.

Asbestos is a naturally-occurring component of certain geologic formations and is commonly found in serpentine. Prolonged and persistent inhalation of asbestos fibers can cause cancer. According to published maps, no rock formations likely to contain naturally occurring asbestos are present in Southern California (California Department of Conservation, Division of Mines and Geology 2000).

Mercury can occur as a result of both natural processes and human activities. Natural mercury is typically associated with cinnabar, which is a mercury sulfide mineral that is the main ore mercury. In California, mercury was widely used in the gold recovery process. The Coast Ranges in California are the primary source of mercury. The principal route of human exposure is through consumption of mercury-contaminated fish. No mercury mines are mapped in the project area (USGS 2000).

Radon is a naturally occurring, invisible, and odorless radioactive gas. While potentially present in many rock types, certain rocks—like black shales and igneous rocks—often have a higher percentage of uranium and thorium (the source of radon) than is typical of rocks that comprise the earth's crust. Since radon is a gas it can easily move through cracks in slabs and foundations of buildings. Breathing indoor air with high levels of radon gas can result in an increased risk of lung cancer. In the project area, only one area has a potential of indoor radon levels in excess of 4 picocuries per liter; this area lies parallel to Highway 101 extending from the Ventura County line to approximately 7 miles east of Interstate 405 (California Department of Conservation, California Geological Survey 2005). This area corresponds to the San Fernando Valley Planning Area.

Human-Related Hazards and Soil Toxicity

As discussed above, the Los Angeles Basin is heavily urbanized and has been the location of industrial operations for over six decades. Many of these operations were unregulated until the mid to late 1970s when the U.S. Environmental Protection Agency (EPA) and other state and local environmental agencies were formed.

Industrial land use can encompass a wide range of business operations that have the potential to create hazardous materials impacts. Industrial facilities store hazardous materials in underground storage tanks and/or aboveground storage tanks, and in designated storage locations. Age and improper maintenance of storage tanks have been common causes for soil and groundwater contamination. Improper handling and storage of hazardous material containers can lead to hazardous material incidents.

Commercial locations include vehicle repair sites, gasoline fueling stations, and dry cleaning facilities. Like industrial facilities, some commercial sites often store hazardous materials in storage tanks and in designated areas within the facility. Hazardous materials spills and leaks in vehicle repair and fueling locations can lead to hydrocarbon-impacted soil and groundwater. Improper storage and use of hazardous materials in dry cleaning facilities can lead to soil and groundwater being contaminated by volatile organic carbon. Agricultural locations also use and store hazardous materials in the form of pesticides, petroleum fuels, oils, and fertilizers.

Groundwater Contamination

Groundwater contamination in the Los Angeles Basin is ubiquitous due to the highly industrialized nature of its development. Groundwater contamination is generally related to the releases of environmental pollutants from aerospace operations, dry cleaning facilities, chemical plants, gas stations, and landfills.

Several EPA Superfund sites are located in the Los Angeles Basin. These sites are most notable due to extensive groundwater contamination. The principal areas that have significant groundwater contamination are located in the San Fernando and San Gabriel Valleys. Four Superfund sites are located in the San Fernando Valley (Operable Units #1–4), and four Superfund sites are located in the San Gabriel Valley (Operable Units #1–4). Remediation is underway or planned in all of these areas. The principle contaminant is volatile organic compounds. The groundwater contamination is generally found in aquifers that are deeper than 50 feet below ground surface.

Eight major groundwater basins provide about one-third of the County's water. Within these basins are several major watersheds, comprised of many sub-watersheds, in Los Angeles County including:

- Los Angeles River Watershed
 - Dominguez Channel Sub-Watershed
- San Gabriel River Watershed
- Santa Monica Bay Watershed
 - Malibu Creek Sub-Watershed
 - Ballona Creek Sub-Watershed
- Santa Clara River Watershed
- Antelope-Fremont Valleys Watershed

Federal and state agencies such as the EPA and RWQCBs are working to improve the quality of groundwater by identifying contaminants, initiating cleanup efforts, and bringing enforcement actions against polluters. To reduce pollution in the future, each city and the County are implementing water pollution prevention programs appropriate for their jurisdiction (Los Angeles County Department of Regional Planning 2008).

3.5.3.2 Local Setting

The paragraphs below describe the general setting of each of the County's 10 affected planning areas as it relates to potential for hazardous materials and wastes.

Antelope Valley Planning Area

The Antelope Valley Planning Area consists of 1,800 square miles of unincorporated territory within the Antelope Valley. The planning area encompasses most of northern Los Angeles County and primarily consists of rural communities and open space, including high desert lands, the Liebre and Sierra Pelona Mountain Ranges, and the Angeles National Forest. Since most of the planning area is unincorporated vacant land, it is expected that naturally occurring hazards are the most common type of hazard in this area. However, some other land uses in this planning area include commercial, industrial, and agricultural uses, which are expected to generate human-related hazardous materials.

East San Gabriel Valley Planning Area

The East San Gabriel Valley Planning Area is the easternmost planning area in the Los Angeles Basin, and it is bordered to the east by the San Bernardino county line. This planning area contains a high number of unincorporated communities, many of which are small, noncontiguous communities that are interspersed with incorporated cities. This planning area is primarily built out with mid- to high-density development composed of single- and multi-family residential, commercial, and industrial uses dotted with supporting infrastructure (i.e., transportation, communication, and electrical). Also, some areas within the planning area are reserved for open space uses; however, it generally exhibits a highly urbanized, utilitarian character. Given that the planning area is primarily built out with residential, commercial, and industrial uses, it is expected that human-related hazards are the most common type of hazard in this area.

Gateway Planning Area

The Gateway Planning Area is located in the southern portion of the County, bordering Orange County, the Metro Planning Area, and the West and East San Gabriel Valley Planning Areas. Several relatively dense unincorporated communities are located within this planning area, most of which are predominately residential interspersed with a mix of educational, commercial, office, facilities, open space, and recreational land uses. Some industrial uses are located on the outskirts of the planning area. North Whittier is primarily open space, and Rancho Dominguez and the Bandini Islands are dominated by industrial land uses. Given that the planning area is primarily built out with residential, commercial, and industrial uses, it is expected that human-related hazards are the most common type of hazard in this area.

Metro Planning Area

The Metro Planning Area is located in a dense urban area of central Los Angeles County. The planning area supports approximately 21 square miles of densely populated unincorporated communities, including East Los Angeles. It also contains a large portion of the incorporated City of Los Angeles, including Downtown Los Angeles and South Los Angeles. The communities are

transit-rich and are transected by light-rail lines. The planning area contains a mix of primarily commercial, mixed use, industrial, multi-family residential, and single-family residential land uses, which are expected to generate human-related hazards.

San Fernando Valley Planning Area

The San Fernando Valley Planning Area is mostly incorporated with only a few small unincorporated communities scattered along the periphery of the planning area in the foothills of the mountain ranges surrounding San Fernando Valley. The planning area's unincorporated communities include Kagel Canyon, La Crescenta-Montrose, Lopez Canyon, Oat Mountain, Sylmar Island, Twin Lakes, Universal City, West Chatsworth, and West Hills. These communities encircle the incorporated San Fernando Valley, which includes the Cities of Los Angeles (San Fernando Valley portion), Burbank, Glendale, and San Fernando. Land uses within the planning area are diverse. The communities of Kagel Canyon, Lopez Canyon, and Sylmar Island are mountainous with predominantly rural residential, open space, and park land uses. Industrial uses occupy the southern portion of Lopez Canyon. La Crescenta-Montrose is primarily low- to medium-density single-family residential with commercial activity concentrated along Foothill Boulevard. Oat Mountain is mainly rural, park, and open space. Twin Lakes is dominated by single-family residential land uses. Universal City is exclusively occupied by Universal Studios property. The unincorporated area has no residences and is designated for commercial and industrial land uses only. Located on the western boundary of the planning area, West Chatsworth and West Hills encompass 2 square miles of rural residential and single-family residential land. West Chatsworth is largely rural residential with a sparsely populated hillside community located in the northern portion of the community. By comparison, the incorporated cities of the San Fernando Valley are mostly built out, with strong patterns of urban and suburban development. Given that the planning area is primarily built out with residential, commercial, and industrial uses, it is expected that human-related hazards are the most common type of hazard in this area.

Santa Clarita Valley Planning Area

Unincorporated County land covers approximately 195 square miles of the Santa Clarita Valley Planning Area's total 484 square miles. The planning area is located in northern Los Angeles County, bounded by Ventura County to the west, the Antelope Valley Planning Area to the north and east, and the San Fernando Valley Planning Area to the south. The planning area is characterized by several village-like communities with distinct development patterns and histories of development. The valley features a significant amount of County parkland and open space. The Los Padres and Angeles National Forests comprise about 235 square miles of the planning area. Urban development is focused within and just outside of the City of Santa Clarita, while the surrounding unincorporated communities are suburban-rural.

There are 10 unincorporated suburban/rural communities within the Santa Clarita Valley Planning Area. They include: Agua Dulce, Alpine, Bouquet Canyon, Castaic, Forest Park, Hasley Canyon, Lang, Soledad-Sulphur Springs, Stevenson Ranch, and Val Verde. Given that the planning area contains a significant amount of parkland and open space as well as residential and urban

development, it is expected that naturally occurring and human-related hazards have the potential to occur in this area.

Santa Monica Mountains Planning Area

The Santa Monica Mountains Planning Area is located in a biologically diverse and sensitive mountainous area of the western County. The planning area borders Ventura County, the San Fernando Valley Planning Area, and the Westside Planning Area. Along the northern portion of the planning area are several incorporated cities: Westlake Village, Agoura Hills, Calabasas, and Hidden Hills. Along the coastal portion of the planning area to the south is the City of Malibu. The Santa Monica Mountains National Recreational Area encompasses a vast area of the mountain range. The remaining 113 square miles of unincorporated areas are composed of the Santa Monica Mountains Coastal Zone and Santa Monica Mountains North Area. Multi-agency conservation-based planning efforts have helped maintain a low population density throughout the planning area. The Santa Monica Mountains Planning Area land uses are predominately open space, park, and rural residential. There are also discrete pockets of single-family residential and commercial areas dispersed throughout the planning area. Given that the planning area is mainly unincorporated vacant land with dispersed commercial uses, it is expected that naturally occurring hazards are the most common type of hazard in this area.

South Bay Planning Area

The South Bay Planning Area is located in the southwestern-most portion of the County and is bordered by the Gateway Planning Area to the east, the Metro and Westside Planning Areas to the north, and the Pacific Ocean to the south and west. This planning area exhibits a primarily residential character with mid- to high-density development. Unincorporated communities within this planning area include Alondra Park, Hawthorne Island, Del Aire, Lennox, Westfield, La Rambla, and West Carson. In addition, industrial and commercial uses are common and scattered throughout this entire planning area. Given that the planning area is predominantly residential with scattered industrial and commercial uses, it is expected that human-related hazards would be the most common type of hazard in the planning area.

West San Gabriel Valley Planning Area

The West San Gabriel Valley Planning Area consists of a cluster of communities located east of Downtown Los Angeles and intermingled with numerous cities, including Pasadena, South Pasadena, Monterey Park, and El Monte. The planning area communities include Altadena, East Pasadena-East San Gabriel, Kinneloa Mesa, San Pasqual, South Monrovia Islands, South San Gabriel, South El Monte Islands, and Whittier Narrows. The San Gabriel Valley has undergone dramatic population and demographic shifts over the last 30 years. Previously a primarily residential community, it now hosts employment centers and major regional transit access. Mixed-use infill and transit-oriented development are planned for East Pasadena, and it is envisioned as a model for unincorporated communities in this area. Land uses within this planning area are predominately single-family residential, and it is expected that human-related hazards would be the most common type of hazard in the planning area.

Westside Planning Area

The Westside Planning Area is located in the densely urban western part of the County. It contains four unincorporated areas composed of the following six communities: Franklin Canyon, West Los Angeles (Sawtelle Veterans Affairs), Marina del Rey, Ballona Wetlands, West Fox Hills, and Ladera Heights/Viewpark-Windsor Hills. The unincorporated areas are surrounded by incorporated jurisdictions, primarily the City of Los Angeles. Land uses in West Los Angeles are exclusively open space/park and public use, hosting the Veterans Affairs Administration and Hospital, Barrington Recreation Center, and Los Angeles National Cemetery. The remaining communities consist of predominately residential, commercial, open space, and park land uses. It is expected that that human-related hazards would be the most common type of hazard in the planning area.

3.5.4 Project Impacts and Mitigation Measures

This section describes the impact analysis relating to hazardous materials and wastes for the Bicycle Master Plan at the program level. It describes the methods used to determine the impacts of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, if necessary. Detailed analysis at the project level will determine the significance of impacts for individual Bicycle Master Plan projects and, if necessary, the applicability of mitigation measures.

3.5.4.1 Methods

This section was prepared using a qualitative analysis to document existing conditions. This was done by reviewing the Bicycle Master Plan and other existing County planning documents to report possible hazardous material impact conditions in all Los Angeles County planning areas. In order to assess potential impacts, the proposed project bikeways were reviewed along with Los Angeles County land use maps.

3.5.4.2 Thresholds of Significance

An impact related to hazardous materials and wastes was considered significant if it would result in a “yes” answer to any of the following questions from the County of Los Angeles Initial Study Checklist.

1. Have there been previous uses that indicate residual soil toxicity of the site or is the site located within two miles downstream of a known groundwater contamination source within the same watershed?
2. Would the project be located on 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 create a significant hazard to the public or environment?

3.5.4.3 Impacts and Mitigation Measures

Impact 3.5-1: Previous uses that indicated residual soil toxicity of the site and/or the site is located within two miles downstream of a known groundwater contamination source within the same watershed.

Construction

Potential residual toxicity in soil. Los Angeles County regional information indicates that residual soil toxicity may be encountered during construction activities in portions of the proposed project areas. Construction and grading activities in this location would potentially result in a release of hazardous materials. This would be a significant impact.

Also, because of the highly industrialized and commercial nature of the proposed project areas, it is possible that residual soil toxicity exists in various locations throughout the County. As such, construction activities related to the proposed project may encounter toxic soil during grading activities. Therefore, construction activities could result in a potentially significant impact for construction personnel.

Potential groundwater contamination. As mentioned in Section 3.5.3.1, “Regional Setting,” groundwater contamination in the Los Angeles Basin is ubiquitous due to the highly industrialized nature of its development. As such, it is likely that construction activities in some portions of the proposed project area will be located within 2 miles downstream of a known groundwater contamination source. Although this is the case, the construction methods that would be generally used would not be likely to encounter contaminated groundwater because this type of groundwater contamination is typically encountered at or below 50 feet below ground surface. Soil disturbance is expected to occur mostly during construction of off-road bikeways or on-road bikeways that would require widening or other types of ground disturbance, and it is expected that only surficial soils will be disturbed (during grading activities). Consequently, there would be no significant hazard to the public, environment, or construction personnel as a result of being located within 2 miles downstream of a known groundwater contamination source. Impacts would generally be less than significant.

Supports for bridges could potentially penetrate into areas with contaminated groundwater and could result in exposure of construction workers and the public to contaminated groundwater. This would be a significant impact and would require analysis at the individual project level during the design phase of those projects.

Operation

Human health impacts resulting from the exposure to hazardous chemicals present in toxic soils and contaminated groundwater typically require repeated and prolonged exposure. Given the transient nature of bicycle path use, prolonged exposure to any toxic soil or groundwater is not anticipated. Therefore operational impacts related to Impact 3.5-1 would be less than significant.

Mitigation Measures

Detailed analysis of impacts related to contaminated groundwater exposure or other hazards will be required prior to implementation of individual Bicycle Master Plan projects that would require excavation, soil removal, or dewatering. This analysis will include a Preliminary Environmental Site Screening (PESS) that characterizes the potential for environmental hazards to exist on the site. If found to be necessary in the PESS, follow-up studies may be required.

MM 3.5-1: Take appropriate action based on a Preliminary Environmental Site Screening and follow-up studies for projects requiring soil disturbance.

Individual Bicycle Master Plan projects that require soil disturbance and are subject to further analysis at the project level will be required to comply with the recommendations of the Preliminary Environmental Site Screening, and follow-up studies if necessary, to avoid or facilitate remediation of significant impacts.

Level of Significance after Mitigation

With implementation of MM 3.5-1, impacts would be less than significant.

Impact 3.5-2: Be located on 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 create a significant hazard to the public or environment.

Under this impact, the analysis considers possible impacts from hazardous materials sites that already appear on lists pursuant to Government Code Section 65962.5, and to other sites, known and unknown at this time, that could result in similar exposure risks from naturally occurring and human-related sources. Table 3.5-1 shows the types of impacts most likely to occur by planning area.

Table 3.5-1. Likely Impacts by Planning Area

| Planning Area | Antelope Valley | East San Gabriel Valley | Gateway | Metro | San Fernando Valley | Santa Clarita Valley | Santa Monica Mountains | South Bay | West San Gabriel Valley | Westside |
|---|-----------------|-------------------------|---------|-------|---------------------|----------------------|------------------------|-----------|-------------------------|----------|
| Naturally Occurring Hazards | X | | | | | | X | | | |
| Listed Hazardous Materials Sites | | X | X | X | X | X | | X | X | X |
| Lead-Based Paint and Asbestos-Containing Building Materials | | X | X | X | X | X | | X | X | X |
| Aerially Deposited Lead | | X | X | X | X | X | | X | X | X |
| Agricultural Chemicals | X | | | | | | | | | |
| polychlorinated biphenyls (PCBs) | | X | X | X | X | X | | X | X | X |

Construction

Naturally Occurring Hazardous Materials. Because naturally occurring asbestos, mercury, and radon are not found at significant levels within the project area, impacts during construction from these sources would be less than significant. Mercury and asbestos do not represent impacts because mercury and asbestos-containing rocks are not present in the project area. Radon does not represent an impact because construction will not occur in enclosed structures.

Listed Hazardous Materials Sites. Due to the amount of area to be covered by the proposed project, it is very likely that the construction of the proposed bicycle pathways would encounter numerous sites found in various environmental databases. It is expected that most industrial, commercial, and agricultural facilities that deal with storage, use, and disposal of hazardous materials within all County planning areas will comply with all appropriate federal, state, and local regulations—such as the regulations discussed in the regulatory section above—to ensure safety of the surrounding public and environment. However, it is possible that hazardous materials have been released to the soil along the proposed bike path route. Therefore, construction of the proposed project may encounter a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and exposure to hazards associated with these sites could result in significant impacts. (Due to the expected shallow depth of grading and excavation for the project, it is not likely that the project would encounter groundwater that is contaminated with industrial pollutants, except for bridge construction, as discussed in Impact 3.5-1.)

Lead-Based Paint and Asbestos. Construction of the project might encounter features that might contain lead-based paint or asbestos-containing building materials. Older buildings, metal fence posts, signs, railings, bridges, and roadway markings may contain lead-based paint. To the extent that such features are relocated, demolished, or otherwise disturbed during construction activities, lead could be released to the environment. Lead was removed from most paints used in homes in 1978; however, paints used for industrial applications contained lead beyond 1978. Additionally, older buildings may contain asbestos-containing building materials. Loose insulation, ceiling panels, and brittle plaster are potential sources of friable (easily crumbled) asbestos. Since inhalation of airborne asbestos fibers is the primary mode of asbestos entry into the body, friable asbestos presents the greatest health threat. Nonfriable asbestos is generally bound to other materials such that it does not become airborne under normal conditions. Lead-based paint and asbestos-containing building materials are generally not a health hazard unless disturbed. However, if materials having lead-based paint and asbestos-containing building materials are disturbed and not properly controlled during construction, lead-based paint and asbestos-containing building materials could be released to the environment. Therefore, the project could expose the public or the environment to lead-based paint or asbestos-containing building materials and the impacts would be significant.

Aerially Deposited Lead. Construction of project components that are near high traffic areas could encounter aerially deposited lead. Aerially deposited lead is principally derived from the combustion and subsequent dispersion of lead particles associated with leaded gasoline. Aerially deposited lead in soil generally does not present a health hazard during construction; however, there are specific guidelines regarding the reuse of excavated soil.

PCBs. Polychlorinated biphenyls (PCBs) could be encountered during construction and/or demolition of structures and infrastructure along the bike path. PCBs have been widely used in transformer fluids and dielectrics. Due to health impacts, the EPA banned some uses of PCBs in 1977 and most production use in 1979. However, old transformers and other materials (e.g., capacitors and hydraulic fluids) still in use or abandoned in place may contain PCBs. Fluorescent light ballasts manufactured after 1979 should not contain PCBs and are required by law to contain a label that states that no PCBs are present within the units. If older structures (pre-1979) are targeted for demolition, some could contain florescent light ballasts with PCBs. Given the large area included in the project, the environment or public could be exposed to PCBs and the impacts could be significant.

Chemicals Used for Agricultural Land Uses. Portions of the project will traverse or be near land that was previously used for agricultural purposes. It is likely that this land has been subject to historic application of herbicides and pesticides. As a result, there is a potential for residual, low-level concentrations of these substances to be present in soil and/or groundwater. The federal Insecticide, Fungicide, and Rodenticide Act authorizes the legitimate application of herbicides and pesticides used in accordance with manufacturer-prescribed and labeled instructions. Therefore, the potential presence of low concentrations of agricultural chemicals along the bike path alignment is considered a nonhazardous condition. In addition, the project would not contain a residential or commercial component that would expose people to potential pesticides or herbicides. Therefore, impacts related to herbicides and pesticides would be less than significant.

Operation

Bike path use would be limited to pedestrian and bicycle traffic. Hazardous materials, either naturally occurring or manmade, would not be used in conjunction of the bike path operations; therefore, users of the bike would not be exposed to or subject to environmental risks. Due to the low-impact nature of the bike path use, there are no operational impacts associated with Impact 3.5-2.

Mitigation Measures

Detailed analysis of impacts related to listed hazardous materials sites, lead-based paints, asbestos, aerially deposited lead, and PCBs will be required prior to implementation of individual Bicycle Master Plan projects that would include soil disturbance or demolition. This analysis will include the PESS (and follow-up studies, if required), as described for Impact 3.5-1. In addition, for any project that would require the demolition of structures, surveys for lead-based paint and asbestos-containing materials will be required to determine if soil lead or asbestos is present.

Federal and state regulations govern the renovation and demolition of structures where materials containing lead and asbestos are present or suspected. These requirements include: SCAQMD rules and regulations pertaining to asbestos abatement (including Rule 1403), Construction Safety Orders 8 CCR 1529 (pertaining to asbestos) and 8 CCR 1532.1 (pertaining to lead), 40 CFR 61.M (pertaining to asbestos), and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development. Lead and asbestos abatement must be performed and monitored by contractors with appropriate certifications from the California Department of Health Services. In addition, California Division of Occupational Safety and Health (Cal/OSHA) has regulations

concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the hazards of chemicals, and documenting employee-training programs. A PCB survey will also be required for any project involving the demolition of structures or infrastructure at the project level. The survey will include sampling and identification of suspected PCBs.

MM 3.5-2: Take appropriate actions based on lead-based paint and asbestos-containing building materials surveys for projects requiring demolition of structures.

All demolition that could result in the release of lead and/or asbestos will be conducted according to Cal/OSHA standards and in accordance with the recommendations of the site-specific lead-based paint and asbestos-containing materials surveys.

MM 3.5-3: Take appropriate actions based on PCB survey for projects requiring demolition of structures.

Based on the site-specific PCB surveys, abatement of known or suspected PCBs will occur prior to demolition or construction activities that would disturb those materials. In the event that electrical equipment or other PCB-containing materials are identified prior to demolition activities, they will be removed and will be disposed of by a licensed transportation and disposal contractor at an appropriate hazardous waste facility.

Level of Significance after Mitigation

With implementation of MM 3.5-2 and MM 3.5-3, impacts would be less than significant.

3.5.5 Cumulative

Hazards and hazardous materials impacts related to the Bicycle Master Plan are generally related to construction and are site-specific. They involve exposure of construction workers and the public to existing hazardous materials. Such impacts do not readily combine with impacts from other projects to result in cumulative impacts. Therefore, the Bicycle Master Plan would not contribute to cumulative impacts related to hazards or hazardous materials.