Section 5.9:

Hazards and Hazardous Materials

SECTION 5.9
HAZARDS AND HAZARDOUS MATERIALS

5.9.1 PURPOSE

This section describes the means by which hazardous substances are regulated from a Federal, State, and local perspective, and discusses potential adverse impacts to human health and the environment due to exposure of hazardous materials. Where significant impacts are identified, mitigation measures are identified to avoid or reduce these impacts to a less than significant level. For this EIR, the term "hazardous material" includes any material that, because of its quantity, concentration, or physical, chemical, or biological characteristics, poses a considerable present or potential hazard to human health or safety, or to the environment. It refers generally to hazardous chemicals, radioactive materials, and biohazards materials. "Hazardous waste", a subset of hazardous material, is material that is to be abandoned, discarded, or recycled, and includes chemicals, radioactive, and bio-hazardous waste (including medical waste).

Other hazards, such as potential airport-related safety hazards for people residing/working in the project area, interference with an adopted emergency response plan, and exposure of people/structures to risk involving wildland fires, are also addressed in this section.

5.9.2 EXISTING REGULATORY SETTING

Federal, State, and local regulatory policies and laws that apply to hazards and hazardous materials are discussed below.

FEDERAL

Clean Air Act

The Clean Air Act (CAA) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes the United States Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants. One of the goals of the Act was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs), applicable to appropriate industrial sources in the state, in order to achieve these standards. The Act was amended in 1977 and 1990 primarily to set new goals (dates) for achieving attainment of NAAQS, since many areas of the country had failed to meet the deadlines.

Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. "Major sources" are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants. An "area source" is any stationary source that is not a major source.

For major sources, Section 112 requires that EPA establish emission standards that require the maximum degree of reduction in emissions of hazardous air pollutants. These emission standards are commonly referred to as "maximum achievable control technology" or "MACT" standards. Eight years after the technology-based MACT standards are issued for a source category; EPA is required to review those standards to determine whether any residual risk exists for that source category and, if necessary, revise the standards to address such risk. The CAA is discussed in greater detail in Section 5.5, Air Quality.

Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, EPA has implemented pollution control programs such as setting wastewater standards for industry. Water quality standards for all contaminants in surface waters were also established. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. The CWA is discussed in greater detail in Section 5.8, Hydrology and Water Quality.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, EPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, EPA obtains private party cleanup through orders, consent decrees, and other small party settlements. EPA also recovers costs from financially viable individuals and companies once a response action has been completed.

EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies.

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Also, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA); see discussion below.

Emergency Planning and Community Right-To-Know Act

Authorized by Title III of the Superfund Amendments and Reauthorization Act (SARA), the Emergency Planning and Community Right-to-Know Act (EPCRA) was enacted by Congress as the national legislation on community safety. This law is designed to help local communities protect public health, safety, and the environment from chemical hazards. To implement EPCRA, Congress requires each state to appoint a State Emergency Response Commission (SERC). The SERCs are required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee (LEPC) for each district. Broad representation by fire fighters, health officials, government and media representatives, community groups, industrial facilities, and emergency managers ensures that all necessary elements of the planning process are represented.

Hazardous Materials Transportation Act

The Department of Transportation (DOT) receives the authority to regulate the transportation of hazardous materials from the Hazardous Materials Transportation Act (HMTA), as amended and codified in 49 U.S.C. 5101 et seq. The DOT is the primary regulatory authority for the interstate transport of hazardous materials and establishes regulations for safe handling procedures (i.e., packaging, marking, labeling and routing).

Occupational and Safety Health Act

Congress passed the Occupational and Safety Health Act to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for the Occupational Safety and Health Administration (OSHA). OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from “cradle-to-grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

STATE OF CALIFORNIA

Department of Toxic Substances Control

The responsibility for implementation of RCRA was given to California EPA's Department of Toxic Substances Control (DTSC) in August 1992. The DTSC is also responsible for implementing and enforcing California's own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law. Although similar to RCRA, the California Hazardous Waste Control Law and its associated regulations define hazardous waste more broadly and so regulate a larger number of chemicals. Hazardous wastes regulated by California but not by EPA are called "non-RCRA hazardous wastes."

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" was created in 1993 by Senate Bill 1082 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs. The Program is implemented at the local government level by Certified Unified Program Agencies (CUPAs). The Program consolidates, coordinates, and makes consistent the following hazardous materials and hazardous waste programs (Program Elements):

- Hazardous Waste Generation (including onsite treatment under Tiered Permitting);
- Aboveground Petroleum Storage Tanks (only the Spill Prevention Control and Countermeasure Plan or "SPCC");
- Underground Storage Tanks (USTs);
- Hazardous Material Release Response Plans and Inventories;
- California Accidental Release Prevention Program (Cal ARP); and
- Uniform Fire Code Hazardous Material Management Plans and Inventories.

The CUPA with jurisdiction over the City of Fullerton is the Orange County Health Care Agency (OCHCA) Environmental Health Division (EHD).[1] The EHD was designated as the CUPA for the County of Orange on January 1, 1997.

Accidental Release Prevention Law

The State's Accidental Release Prevention Law provides for consistency with Federal laws (i.e., the Emergency Preparedness and Community Right-to-Know Act and the Clean Air Act) regarding accidental chemical releases and allows local oversight of both the State and Federal programs. State and Federal laws are similar in their requirements; however, the California threshold planning quantities for regulated substances are lower than the Federal quantities. Local agencies may set lower reporting thresholds or add additional chemicals to the program. The Accidental Release Prevention Law is implemented by the CUPA and requires that any business, where the maximum quantity of a regulated substance exceeds the specified

[1] State of California Environmental Protection Agency, CUPA Directory Search, http://www.calepa.ca.gov/CUPA/Directory/Default.aspx, Accessed July 27, 2011.

threshold quantity, register with the County as a manager of regulated substances and prepare a Risk Management Plan. A Risk Management Plan must contain an offsite consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses submit their plans to the CUPA, which makes the plans available to emergency response personnel. The Business Plan must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location.

Transportation of Hazardous Materials/Wastes

Transportation of hazardous materials/wastes is regulated by California Code of Regulations (CCR) Title 26. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) enforce Federal and State regulations and respond to hazardous materials transportation emergencies. Emergency responses are coordinated as necessary between Federal, State, and local governmental authorities and private persons through a State mandated Emergency Response Plan.

Due to the significant short-term risks to public health and the environment associated with hazardous waste management during transportation of wastes, specific Commercial Hazardous Waste Shipping Routes are designated with the intent of minimizing the distance that wastes are transported and the proximity to vulnerable locations.

Worker and Workplace Hazardous Materials Safety

Occupational safety standards exist to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle.

OTHER POTENTIAL HAZARDOUS MATERIALS

Asbestos

Asbestos, a naturally occurring fibrous material, was used for years in many building materials for its fire-proofing and insulating properties. Loose insulation, ceiling panels, and brittle plaster are potential sources of friable (easily crumbled) asbestos. Nonfriable asbestos is generally bound to other materials such that it does not become airborne under normal conditions. Any activity that involves cutting, grinding, or drilling during demolition can release friable asbestos fibers unless proper precautions are taken. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, which makes friable materials the greatest potential health risk.

Asbestos is a known human carcinogen and there is no known threshold level of exposure at which adverse health effects are not anticipated. Given this, the USEPA and CalEPA have identified asbestos as a hazardous air pollutant pursuant to Section 12 of the Federal Clean Air Act. Further, the California Air Resources Board (CARB) has identified asbestos as a Toxic Air Contaminant (TAC) pursuant to the California Health and Safety Code (Section 39650 et seq.).

Asbestos is also regulated as a potential worker safety hazard under the authority of CalOSHA. These rules and regulations prohibit emissions of asbestos from asbestos-related demolition or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos. In California, asbestos abatement must be performed and monitored by contractors with appropriate certifications from the California Department of Health Services (DHS). In addition, CalOSHA has regulations to protect worker safety during potential exposure to lead and asbestos under Title 8 of the California Code of Regulations, Section 1529 (Asbestos). All demolition that could result in the release of asbestos must be conducted according to CalOSHA standards. These standards were developed to protect the general population and construction workers from respiratory and other hazards associated with exposure to these materials. Young children, the elderly, and people in poor health may be more susceptible to adverse health effects from exposure to asbestos released to the environment.

Lead

Lead is a naturally occurring metallic element. Among its numerous uses and sources, lead can be found in paint, water pipes, solder in plumbing systems, soils around buildings, and structures painted with lead-based paint. In 1978, the federal government required the reduction of lead in house paint to less than 0.06 percent (600 parts per million [ppm]). However, some paints manufactured after 1978 for industrial uses or marine uses legally contain more than 0.06 percent lead. Because of its toxic properties, lead is regulated as a hazardous material. Inorganic lead is also regulated as a toxic air contaminant. In California, lead abatement must be performed and monitored by contractors with appropriate certifications from the California DHS. In addition, CalOSHA has regulations to protect worker safety during potential exposure to lead and asbestos under Title 8 of the California Code of Regulations, Section 1532.1 (Lead). All demolition that could result in the release of lead must be conducted according to CalOSHA standards. These standards were developed to protect the general population and construction workers from respiratory and other hazards associated with exposure to these materials. Young children, the elderly, and people in poor health may be more susceptible to adverse health effects from exposure to lead released to the environment.

Polychlorinated Biphenyls

Polychlorinated Biphenyls (PCBs) were widely used as a coolant in electrical equipment, such as transformers, from the 1920s to the 1970s. After it was determined that PCBs could cause adverse health effects if ingested and cause cancer when the chemical underwent a chemical change as a result of fire or explosion, PCBs were banned for use in most electrical equipment in the latter part of the 1970s and 1980s.

LOCAL

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) works with the California Air Resources Board (CARB) and is responsible for developing and implementing rules and regulations regarding air toxics on a local level. The SCAQMD establishes permitting requirements, inspects emission sources, and enforces measures through educational programs and/or fines. Refer to Section 5.5, Air Quality and Section 5.21, Greenhouse Gas Emissions, for further discussion regarding toxic air emissions.

Orange County Health Care Agency – Environmental Health Care Division

As previously noted, the CUPA with jurisdiction over the City of Fullerton is the Orange County Health Care Agency (OCHCA) Environmental Health Division (EHD). The EHD is the local administrative agency (i.e., CUPA) that coordinates the regulation of hazardous materials and hazardous wastes in Orange County through the following six programs:

- Hazardous Waste (HW);
- Underground Storage Tank (UST);
- Aboveground Petroleum Storage Tank (APST);
- Hazardous Materials Disclosure (HMD);
- Business Emergency Plan (BEP); and
- California Accidental Release Prevention (CalARP).

County and City Fire Agencies within Orange County have joined in partnership with the CUPA as Participating Agencies (PAs). In Fullerton, the EHD administers the Hazardous Waste and Aboveground Petroleum Storage Tank Programs, while the City of Fullerton Fire Department (FFD) administers the Underground Storage Tank, Hazardous Materials Disclosure, Business Emergency Plan, and California Accidental Release Prevention Programs. The CUPA provides its regulated businesses several convenient benefits such as a single point of contact for permitting, billing, and inspections; uniformity and consistency in enforcement of regulations; and a single fee system incorporating all of the applicable fees from the six CUPA programs.

HAZARDOUS WASTE INSPECTION PROGRAM

The EHD implements the Hazardous Waste Inspection Program throughout Orange County. The purpose of this program is to ensure that all hazardous wastes generated by Orange County businesses are properly handled, recycled, treated, stored, and disposed. Specialists in this program inspect facilities that generate hazardous waste, evaluate hazardous waste generating industries, investigate reports of illegal hazardous waste disposal, and respond to emergency hazardous chemical spills. Specialists also participate in public education programs designed to inform industries and residents about the laws and regulations relating to safe disposal of hazardous waste.

UNDERGROUND STORAGE TANK PROGRAM

An underground storage tank (UST) is any one or combination of tanks, including associated piping that is used to contain industrial solvents, petroleum products, and other hazardous substances. The tank is totally or substantially (10 percent) beneath the surface of the ground. The definition for "tank" is a stationary device constructed primarily of non-earthen materials (e.g. wood, concrete, steel, and plastic) designed to contain an accumulation of hazardous substance. A storage tank system includes the tank, associated piping, monitoring system, and containment equipment.

The purpose of the Underground Storage Tank (UST) Program is to ensure that hazardous materials stored in underground tanks are not released into the environment, potentially polluting ground and surface waters. Any California business that stores hazardous substances in underground storage tanks must follow the law in California Health and Safety Code, Division 20, Chapter 6.7, and the underground tank regulations in the California Code of Regulations (CCR), Title 23, Division 3, Chapter 16.

Refer to the *City of Fullerton Fire Department Operations/Training Division* Section below for a discussion regarding the administration of the UST Program in Fullerton.

ABOVEGROUND PETROLEUM STORAGE TANK PROGRAM

Effective January 1st, 2008, Assembly Bill 1130 (AB1130) authorized the administration and implementation of the Aboveground Petroleum Storage Tank (APST) Program to the local CUPA. For businesses in Orange County, the APST Program has been delegated to the Orange County CUPA throughout the County. This change consolidates environmental programs, fees, and inspection authority into one single regulating agency.

The Aboveground Petroleum Storage Act of 1990 (APSA) requires owners or operations of aboveground petroleum storage tank (APST) facilities to file a tank facility statement, to develop and implement a Spill Prevention Control and Countermeasure (SPCC) Plan, and to pay fees. The purpose of this program is to protect the state's people and natural resources from aboveground petroleum storage tank spills or releases.

HAZARDOUS MATERIALS DISCLOSURE PROGRAM/ BUSINESS EMERGENCY PLAN

Chapter 6.95, Division 20 of the California Health and Safety Code (H&SC) and Chapter 116, Section 11022 of Title 42 of the United States Code contain the minimum requirements for hazardous material inventory reporting and data management. These regulations require businesses within the Orange County jurisdiction to complete a chemical inventory form to disclose hazardous materials stored, used, or handled on site. This disclosure information will assist emergency responders in planning for and handling emergencies involving hazardous materials. The main program objective is to safeguard the lives of emergency responders, the public, and to minimize property loss.

The H&SC also requires a Business Emergency Plan (BEP). The intent of the BEP is to assist in mitigating a release or threatened release of a hazardous material; and to minimize any potential harm or damage to human health or the environment.

Refer to the *City of Fullerton Fire Department Operations/Training Division* Section below for a discussion regarding the administration of the HMD and BEP Programs in Fullerton.

CALIFORNIA ACCIDENTAL RELEASE PREVENTION (CAL-ARP) PROGRAM

The California Accidental Release Prevention (CalARP) program's main objective is to prevent accidental releases of those substances determined to potentially pose the greatest risk of immediate harm to the public and the environment. These substances are called Regulated Substances (RS), which include flammable and toxic hazardous materials listed on the Federal Regulated Substances for Accidental Release Prevention and the State of California Regulated Substances list. Regulated Substances and their threshold quantities can be found in Title 19, California Code of Regulations, in the following tables:

- Table 1: Federal list of Toxic Regulated Substances;
- Table 2: Federal list of Flammable Regulated Substances; and
- Table 3: California list of Regulated Substances.

Businesses that handle regulated substances in industrial processes above threshold quantity levels are subject to CalARP Program requirements.

Refer to the *City of Fullerton Fire Department* Section below for a discussion regarding the administration of the CalARP Program in Fullerton.

City of Fullerton Fire Department Operations/Training Division

The FFD Operations/Training Division is responsible for providing emergency response for controlling Hazardous Materials Incidents. Operations/Training is also responsible for providing state and federally mandated training, and ongoing continuing education related to hazardous materials.

The FFD Fire Prevention Division conducts ongoing inspections for the purpose of life safety, and the enforcement of federal, state, and local fire regulations, among other responsibilities. The Fire Prevention Division also conducts inspections related to hazardous materials and underground storage tank regulations.

As previously noted, the FFD administers the Underground Storage Tank, Hazardous Materials Disclosure, Business Emergency Plan, and California Accidental Release Prevention Programs.

UNDERGROUND STORAGE TANK PROGRAM

The FFD is tasked with implementing and enforcing the underground storage tank codes. To this end, the FFD inspect underground storage tanks, and monitor equipment and compliance documents of UST systems to ensure that these systems are in compliance with the applicable laws and regulations. The FFD also serves to educate and assist tank owners and operators with regulatory requirements.

HAZARDOUS MATERIALS DISCLOSURE PROGRAM/ BUSINESS EMERGENCY PLAN

As noted above, the H&SC requires a BEP, which is intended to assist in mitigating a release or threatened release of a hazardous material, and minimize any potential harm or damage to human health or the environment. In accordance with the provisions of Chapter 6.95, disclosure of hazardous materials shall be updated at least annually.

Completion of the designated forms will satisfy disclosure requirements of State laws, as well as Sections 311 and 312 of Federal law (EPCRA - SARA Title III). The FFD is mandated to maintain files of all chemical inventory and business plans for the businesses within their jurisdiction.

CALIFORNIA ACCIDENTAL RELEASE PREVENTION (CAL-ARP) PROGRAM

Businesses that handle regulated substances in industrial processes above threshold quantity levels are subject to CalARP Program requirements. The CalARP Program requires businesses to have planning activities that are intended to minimize the possibility of an accidental release by encouraging engineering and administrative controls. It is further intended to mitigate the effects of an accidental release, by requiring owners or operators of facilities to develop and implement an accident prevention program. Subsequently, the owner or operator may be required to develop and submit a Risk Management Plan (RMP) to the FFD. The RMP is implemented by the business to prevent or mitigate releases of regulated substances that could have off-site consequences.

Orange County Waste and Recycling

Orange County (OC) Waste and Recycling manages the solid waste disposal system that serves Orange County residents and businesses. On behalf of 34 cities and over three million residents, OC Waste and Recycling operates a network of three active landfills and four household hazardous waste collection centers.

The Household Hazardous Waste Collection Program gives Orange County residents a legal and cost-free way to dispose of unwanted household chemicals that cannot be disposed of in the regular trash. There are four Household Hazardous Waste Collection (HHWC) centers in Orange County: Anaheim; Huntington Beach; Irvine; and San Juan Capistrano. The HHWC center located nearest Fullerton is the CVT Recycling Center located at 1071 North Blue Gum Street in Anaheim. CVT accepts electronic-waste, old paint, pesticides, used motor oil, and household chemicals, etc.

The OC Waste and Recycling does not provide disposal of business waste materials. In Fullerton, independent disposal companies assist with the proper disposal of business waste materials. These companies operate independently of the County.

City of Fullerton Emergency Operations Plan

The City of Fullerton adopted their Emergency Operations Plan (EOP) in March 2004. The EOP is intended to provide guidance for the City's planned response to extraordinary emergency

situations, associated with natural disasters, terrorism, technological incidents, and nuclear defense operations. The EOP concentrates on the management, and concepts and response procedures relative to large-scale disasters. Such disasters pose major threats to life, the environment, and property and can impact the well being of large numbers of people.

The Basic Plan addresses the City of Fullerton's planned response to all natural and technological emergencies, including both peacetime and wartime nuclear defense operations. It provides an overview of operational concepts, identifies components of the City Emergency Management Organization, and describes the overall responsibilities of Federal, State, Region, Operational Area, and City entities.

The City of Fullerton adopted the Standardized Emergency Management System (SEMS) concept (SB 1841) in November 1995. SEMS incorporates the use of:

- The Incident Command System (ICS);
- Multi-Agency/Inter-Agency Coordination System (MACS);
- Mutual Aid;
- Operational Area Concept; and
- Operational Area Satellite Information System (OASIS).

City of Fullerton Municipal Code

CHAPTER 13.19 (FIRE PREVENTION STANDARDS)

Pursuant to Fullerton Municipal Code (FMC) Chapter 13.19 (Fire Prevention Standards), fire hazard severity zones have been established within the City and declared to be those areas designated by the State Director of Forestry and Fire Protection, as depicted on Exhibit 5.9-1, *Fire Hazard Severity*. These zones include Very High, High, and Moderate fire hazard severity zones. Owners of property within fire hazard severity zones must comply with the FFD's Fire Prevention Standard on Fuel Modification Plans and Maintenance, and Fire Prevention Standard on Brush Clearance; refer to FMC Section 13.19.020 (Compliance With Fuel Modification Plans and Maintenance), and FMC Section 13.19.030 (Protection Areas), respectively.

CHAPTER 5.25 (HAZARDOUS MATERIALS CLEANUP)

Pursuant to FMC Section 5.25.010 (Hazardous Materials Cleanup), the FFD Fire Chief is authorized to clean up or abate the effects of any hazardous substance or waste unlawfully released, discharged, or deposited upon or into any property or facilities within the City.

In the event that any person undertakes to clean up or abate the effects of any hazardous substance or waste unlawfully released, discharged, or deposited upon or into any property or facilities within the City, the Fire Chief may take such action as is necessary to supervise or verify the adequacy of the cleanup or abatement.

FMC Chapter 5.25 further defines "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 if released into the workplace or the environment.

5.9.3 EXISTING ENVIRONMENTAL SETTING

HAZARD VERSUS RISK

Worker and public health are potentially at risk whenever hazardous substances are present or will be used. It is important to differentiate between the "hazard" of these substances and the acceptability of the "risk" they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to human health and the environment is determined by the probability of exposure to the hazardous substance and the severity of harm such exposure would pose. The likelihood and means of exposure, in addition to the inherent toxicity of a substance, determine the degree of risk to human health. When the risk of an activity is judged acceptable by society in relation to perceived benefits, the activity is judged to be safe.

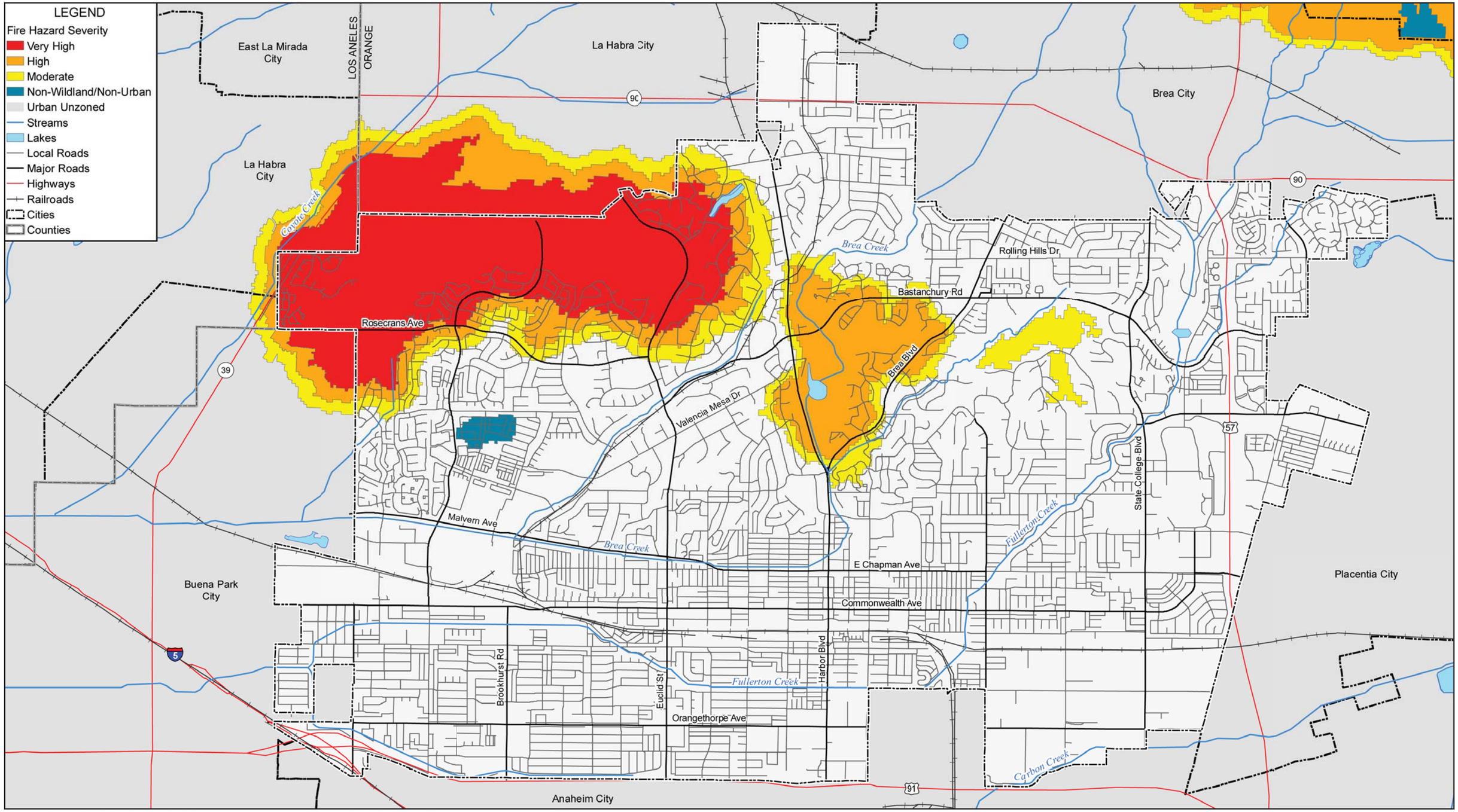
MEANS OF EXPOSURE

Exposure to hazardous substances could occur in the following manner: (1) improper handling or use of hazardous substances during the course of business, particularly by untrained personnel; (2) failure of storage containment systems; (3) environmentally unsound treatment/disposal methods; (4) transportation accidents; (5) fire, explosion or other emergencies; or, (6) permitted release of hazardous substances by regulatory agencies.

The following factors influence the health effects of exposure to hazardous substances: the dose to which the person is exposed; the frequency of exposure; the duration of exposure; the exposure pathway (route by which a chemical enters a person's body); and the individual's unique biological susceptibility.

The means of exposure as outlined above would determine the way in which hazardous materials are absorbed into the body and, therefore, the bodily organs or systems affected. The major ways in which toxic substances may enter and be absorbed by the body are through the mouth (ingestion), the skin (penetration), or the lungs (inhalation). How a hazardous substance gets into the body and what damage it causes depends on the form or physical properties of the substance (i.e., liquid, solid, gas, dust, fibers, fumes or mist). A chemical may be toxic by one route and not another.

Health effects from exposure to toxic substances may be acute or chronic. Acute effects, usually resulting from a single exposure to a hazardous substance, may include damage to organs and systems in the body, and possibly death. Chronic effects, usually resulting from long-term exposure to a hazardous substance, may also include systemic and organ damage, as well as birth defects, genetic damage, and cancer.



Sources: City of Fullerton, State of California, CAL OES, and Fire/Resource Assessment Program LRA Draft September 2007. Map compiled by amec, August 2009.

NOT TO SCALE

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THE FULLERTON PLAN 2030
PROGRAM ENVIRONMENTAL IMPACT REPORT

Fire Hazard Severity

Exhibit 5.9-1

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EMERGENCY VERSUS INCIDENT

A hazardous materials "Emergency" requires emergency responders, causes danger to employees requiring immediate medical attention, can require response from different regulating agencies, and/or results in an actual or potential uncontrolled release. In contrast, a hazardous materials "Incident" is a spill or release that can be absorbed, neutralized, or otherwise controlled at the time of the release. Generally, the substance can be controlled by the employees in the immediate area or by maintenance personnel and there are no immediate safety or health hazards.

REPORTED REGULATORY PROPERTIES

Geotracker

GeoTracker is the California State Water Resources Control Boards' (SWRCB) data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites.

The Geographic Environmental Information Management System (GEIMS) is a data warehouse that tracks regulatory data about underground fuel tanks, fuel pipelines, and public drinking water supplies using GeoTracker. GeoTracker and GEIMS were developed pursuant to a mandate by the California State Legislature (AB 592, SB 1189) to investigate the feasibility of establishing a Statewide GIS for leaking underground fuel tank (LUFT) sites. The GeoTracker database provides lists of the following site types, among others:

- Leaking Underground Tank (LUST) Cleanup Sites;
- Other Cleanup Sites;
- Land Disposal Sites;
- Military Sites;
- Waste Discharge Report (WDR) Sites; and
- Permitted Underground Storage Tank (UST) Facilities.

As of July 27, 2011, the GeoTracker search results indicate there are a total of 351 sites within the City of Fullerton;[2] refer to Appendix G. These are summarized, as follows:

Leaking Underground Tank (LUST) Cleanup Sites. There are a total of 163 LUST Cleanup Sites in the City, 31 of which have not received Case Closed status. The cleanup status of these remaining open status sites is as follows:

- Assessment and Interim Remedial Action: 1 Site;
- Inactive: 4 Sites;
- Remediation: 13 Sites;
- Site Assessment: 9 Sites; and
- Verification Monitoring: 4 Sites.

[2] State of California Water Resources Control Board Website, GeoTracker Database, http://geotracker.waterboards.ca.gov/, Accessed July 27, 2011.

Other Cleanup Sites. There are a total of 20 Other Cleanup Sites in the City, 11 of which have not received Case Closed status. The cleanup status of these remaining open status sites is as follows:

- Status not specified: 2 Sites;
- Assessment & Interim Remedial Action: 2 Sites;
- Inactive: 1 Site;
- Remediation: 1 Site; and
- Site Assessment: 5 Sites.

Land Disposal Sites. There are no Land Disposal Sites in Fullerton.

Military Sites. There are no Military Sites in Fullerton.

Permitted Underground Storage Tank (UST) Facilities. There are a total of 168 Permitted Underground Storage Tank (UST) Facilities.

Envirostor

The DTSC's EnviroStor database is an online search and Geographic Information System (GIS) tool. EnviroStor provides access to detailed information on hazardous waste permitted and corrective action facilities, as well as existing site cleanup information. EnviroStor allows you to search for information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted or have been completed under DTSC's oversight. The EnviroStor database provides lists of the following site types:

Cleanup Sites
- Federal Superfund (National Priority List);
- State Response;
- Voluntary Cleanup;
- School Cleanup; and
- Corrective Action.

Hazardous Waste Facilities
- Permitted – Operating;
- Post-Closure Permitted; and
- Historical Non-Operating.

EnviroStor provides site/facility name, site/facility type, clean-up status, address/description, any restricted use (recorded deed restrictions), past use(s) that caused contamination, potential contaminants of concern, potential environmental media affected, site history, planned, and completed activities. As of July 27, 2011, the EnviroStor search results indicate there are 21 cleanup sites or hazardous waste permitted facilities within the City of Fullerton. These are summarized, as follows:

Federal Superfund (National Priority List). There is one Federal Superfund Site in the City. The cleanup status of this site is Certified Operation and Maintenance (O & M).

State Response. There are two (2) State Response Sites in the City. The cleanup status of these two sites is Active.

Voluntary Cleanup. There is one Voluntary Cleanup Site in the City. The cleanup status of this site is Certified.

Corrective Action. There are a total of seven (7) Corrective Action Sites in the City. The cleanup status of these sites is as follows:

- Active: 3 Sites;
- Certified O&M: 1 Site;
- Inactive: 2 Sites; and
- No Further Action: 1 Site.

Permitted. There are a total of ten (10) Permitted (Tiered) Sites in the City. The cleanup status of these sites is as follows:

- Active: 2 Sites;
- Certified O&M: 1 Site;
- Refer Other Agency: 1 Site; and
- Status Not Reported: 6 Sites.

TRANSPORT OF HAZARDOUS MATERIALS/WASTE

The City has designed various roadways as truck routes to provide for the regulated movement of trucks through the City; refer to Exhibit 5.9-2, *Truck Routes*. These transportation routes are used to transport hazardous materials (among other materials/freight) from suppliers to users. Transportation accidents involving hazardous materials could occur on any of the routes, potentially resulting in explosions, physical contact by emergency response personnel, environmental degradation, and exposure to the public via airborne exposure.

ILLEGAL DISPOSAL

Illegal disposal of toxic materials and hazardous materials/waste on public or private property is a criminal act due to the health and safety threat it poses. As the costs and restrictions increase for legitimate hazardous waste disposal sites, it is anticipated that illegal dumping of hazardous materials would increase proportionately.

LANDFILLS

Landfills can have adverse impacts on surrounding properties, the ground, and groundwater below the landfill. The concern from these facilities is related to the kind of materials disposed of in them, which can consist of non-hazardous (Class III), hazardous waste (Class I), or a combination of both (Class II). There are no active or inactive landfill sites located in the City of Fullerton.

OTHER POTENTIAL SOURCES OF HAZARDOUS MATERIALS

Asbestos Containing Materials

Asbestos is a common name for a group of naturally occurring fibrous silicate minerals that are made up of strong durable fibers, which vary in size and physical shape. Asbestos is strong, incombustible, and corrosion resistant. Because of its physical properties, asbestos was used in many commercial products in construction and many other industries, since prior to the 1940's and up until the early 1970's. Asbestos is commonly found in various manmade products including insulation, ceiling and floor tiles, roof shingles, cement, and automotive brakes and clutches.

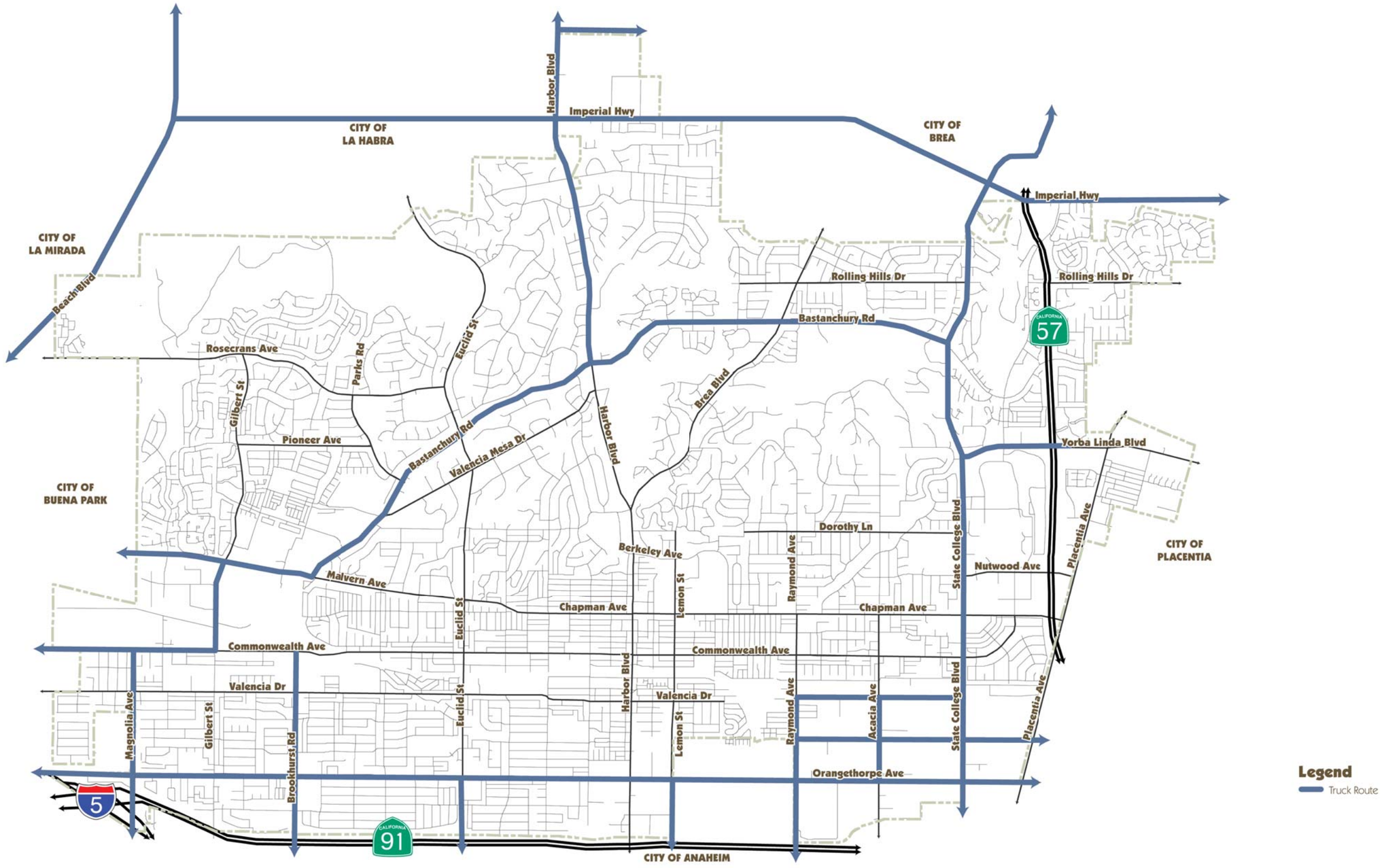
Asbestos fibers are relatively stable in the environment, because asbestos is a mineral. Asbestos fibers do not evaporate into air. Asbestos Containing Materials (ACMs) are building materials containing more than one (1) percent asbestos (some state and regional regulators impose a one-tenth of one [0.10] percent threshold). ACMs that can be crushed into a powder are termed "friable asbestos." When ACM become friable, there is chance that asbestos fibers can become suspended in air.

It is under these conditions that airborne asbestos fibers represent the most significant risk to human health. Asbestos particles do not migrate through soil. Asbestos fibers do not dissolve in water, but under certain conditions, could become water borne and accumulate in steam beds and sediment. Asbestos is a potential health concern, since long term, chronic inhalation exposure to high levels of asbestos can cause lung diseases including asbestosis, mesothelioma, and/or lung cancer. Many of the existing structures present within the City were built prior to 1978. Therefore, the potential for ACMs is considered high.

Several different Federal, State, and local agencies regulate asbestos. Generally, worker exposure is regulated by the Federal OSHA and its California State counterpart Cal/OSHA.

Lead-Based Paints

Until 1978, when the U.S. Consumer Product Safety Commission (CPSC) phased out the sale and distribution of residential paint containing lead, many homes were treated with paint containing some amount of lead. It is estimated that over 80 percent of all housing built prior to 1978 contains some lead-based paint (LBP). The mere presence of lead in paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or peeling), most intact LBP is not considered to be a hazardous material. In poor condition, LBPs can create a potential health hazard for building occupants, especially children. Many of the existing structures present within the City were built prior to 1978. Therefore, the potential for LBPs to be found in the City is considered high.



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THE FULLERTON PLAN 2030
PROGRAM ENVIRONMENTAL IMPACT REPORT

Truck Routes

Exhibit 5.9-2

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Airport Hazards

Fullerton Municipal Airport (FMA) is a general aviation airport located at 4011 West Commonwealth Avenue, in the western portion of the City. FMA encompasses 86 acres, with a runway length of 3,120 feet and capacity to accommodate 600 planes. FMA is a high capacity general aviation airport, or "Reliever Airport," with over 250 based aircraft and approximately 81,000 annual operations.

FMA is within the oversight of the Orange County Airport Land Use Commission (ALUC). The ALUC is required to prepare and adopt an airport land use plan for each of the airports within its jurisdiction. The ALUC prepared the *Airport Environs Land Use Plan for Fullerton Municipal Airport* (AELUP) (Amended November 18, 2004). The AELUP "seeks to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace." The AELUP also intends to safeguard the general welfare of the inhabitants within the vicinity of the airport and to ensure the continued operation of the airport. Land uses within the AELUP planning area boundaries are required to conform to safety, as well as noise and height restrictions.

RUNWAY PROTECTION AND ACCIDENT POTENTIAL ZONES

A Runway Protection Zone (Clear Zone) (RPZ) is a trapezoidal area located off of each end of a runway that is used to enhance the protection of people and property on the ground. The RPZ is the innermost of the safety zones. Accident Potential Zones (APZ) are zones established around civil airports on the basis of study and evaluation of each airport's accident history and operational characteristics. For FMA, APZs are known as RPZs.

Building Height Restriction Zones involve areas located in the vicinities of airports wherein criteria for building height restrictions have been adopted based on Federal Aviation Regulations Part 77 (FAR Part 77) entitled, "Objects Affecting Navigable Airspace." Refer to Section 5.1, Land Use and Planning, for further discussion regarding FMA's Building Height Restriction Zones.

FMA's RPZ and APZ are illustrated on the AELUP Appendix D map *Airport Impact Zones Fullerton Municipal Airport*, and more specifically described in the AELUP, as follows:

> *RUNWAY PROTECTION ZONES / ACCIDENT POTENTIAL ZONES - The Commission analyzed the accident history of Fullerton Airport and concluded that the significant number of accidents justified the establishment of an Accident Potential Zone "RPZ" (Runway Protection Zone) for land use planning purposes at each runway end beginning 200 feet beyond the displaced thresholds and extending outward for a linear distance of 1,000, and an Accident Potential Zone "II" within 500 feet of the runway centerline beyond the areas of the RPZ and the airport proper, as shown in Appendix D on the map entitled Fullerton Municipal Airport Impact Zones… .*

AELUP SPECIFIC POLICIES

To fulfill the purpose of the AELUP, land use within the AELUP planning area boundaries is required to conform to various safety standards. The AELUP's Specific Policies pertaining to RPZs and APZ II (which have been established for FMA) are provided below. Some proposed land uses as normally designed and constructed may be found to be inconsistent with the AELUP on a case-by-case basis. Other land uses may be found to be consistent provided that certain conditions, mitigations, or design measures are utilized.

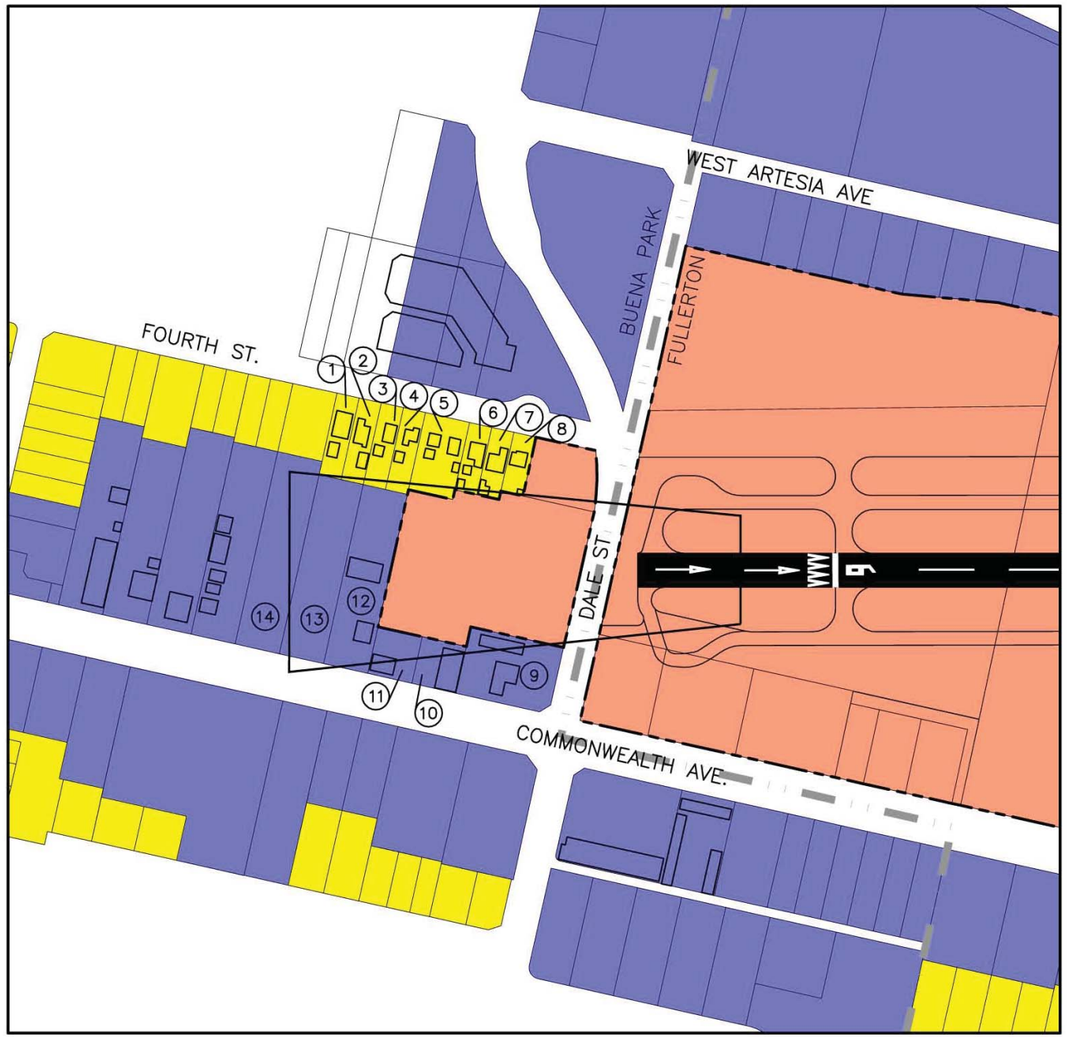
Land Use Runway Protection Zone "RPZ", Extreme Crash Hazard. The severe potential for loss of life and property due to accidents prohibits most land uses in this area. Also, the close proximity to aircraft operations limits land uses which would endanger such operations. Only airport-related uses and open space uses (including agriculture and certain types of transportation and utility uses) are permitted in the RPZ. No buildings intended for human habitation are permitted in the RPZ.

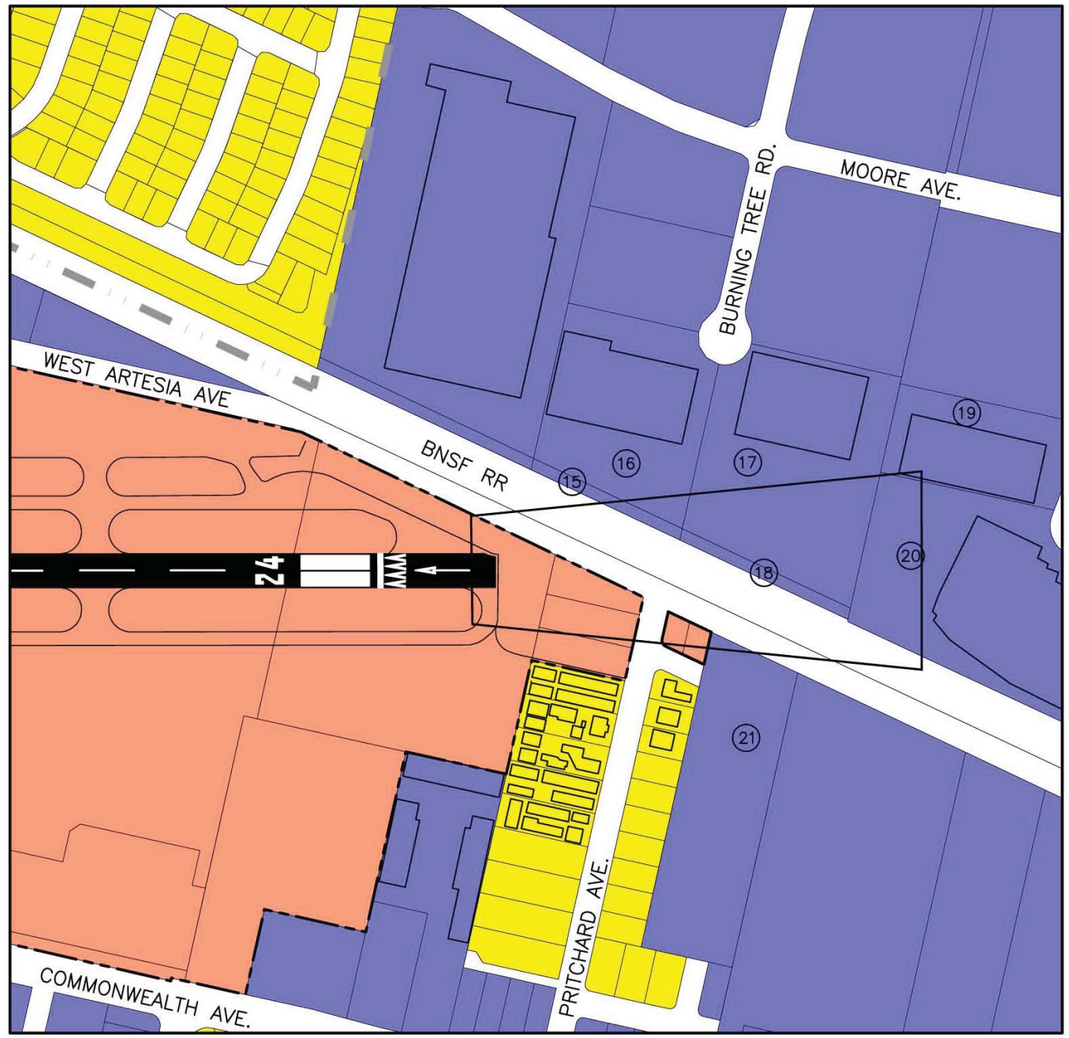
Accident Potential Zone II "APZ II", Limited Crash Hazard. The potential for loss of life and property due to aircraft accidents is sufficient to require density and intensity of use restrictions in this zone. In accordance with the General Policy, the Commission would find unacceptable any land use where lot coverage exceeded 75 percent or where more than 200 persons were placed for long periods in an open assembly area or in a structure (i.e., a free-standing building). Most forms of open space, industrial, commercial, and airport-related uses are acceptable within APZ II, whereas residential and public facilities (schools, churches, etc.) are not acceptable. In applying the APZ standards, the Commission considers a free-standing building as one structure despite the existence of fire walls that may separate tenants or users. Furthermore, the Commission considers that if a structure crosses over boundary lines of APZs I or II, or over a boundary between a non-crash hazard area and an APZ, then the entire building shall be considered to be in the more restrictive APZ area regarding density standards.

Furthermore, because of the proximity to aeronautical operations, uses in RPZ and APZ II must not emit excessive glare or light, nor produce or cause steam, smoke, dust, or electronic interference so as to interfere with, or endanger, aeronautical operations.

EXISTING LAND USES WITHIN RPZ AND APZ II

Exhibit 5.9-3, *Parcels Located Within Fullerton Municipal Airport Runway Protection Zone*, illustrates FMA's RPZ boundaries. As illustrated on Exhibit 5.9-3, the southern portions of the following eight parcels, which are currently designated residential, are located within the RPZ boundaries: Assessor's Parcel Numbers (APNs) 066-270-43; 066-270-49; 066-270-50; 066-270-55; 066-270-57; 066-270-58; 066-270-66; and 066-270-67. Additionally, portions of the following 13 parcels, which are currently designated industrial or commercial, are located within the RPZ boundaries: APNs 030-492-03; 030-492-08; 030-492-16; 066-270-11; 066-270-60; 066-270-61; 066-270-72; 066-270-73; 066-270-76; 280-212-02; 280-212-03; 280-212-07; and 280-212-08. Given only airport-related and open space uses are permitted in the RPZ, these existing land uses (21 parcels) within FMA's RPZ are currently inconsistent with the AELUP.





LEGEND

- FULLERTON MUNICIPAL AIRPORT
- INDUSTRIAL OR COMMERCIAL*
- RESIDENTIAL*
- RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- CITY BOUNDARY LINE

*General Plan Land Use Designations

PARCELS					
#	APN	#	APN	#	APN
1	066–270–67	8	066–270–43	15	280–212–08
2	066–270–66	9	066–270–76	16	280–212–03
3	066–270–49	10	066–270–61	17	280–212–02
4	066–270–50	11	066–270–60	18	280–212–08
5	066–270–57	12	066–270–73	19	030–492–03
6	066–270–55	13	066–270–72	20	030–492–08
7	066–270–58	14	066–270–11	21	030–040–16

Sources: P&D Consultants, Inc.

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THE FULLERTON PLAN 2030
PROGRAM ENVIRONMENTAL IMPACT REPORT

Parcels Located Within Fullerton Municipal Airport Runway Protection Zone

Exhibit 5.9-3

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Exhibit 5.9-4, *Parcels Located within Fullerton Municipal Airport Accident Potential Zone (APZ II)*, illustrates FMA's APZ II boundaries. As illustrated on Exhibit 5.9-4, portions of the following 12 parcels, which are currently designated residential, are located within the APZ II boundaries: APNs 030-051-07; 030-051-27; 030-051-28; 030-052-04; 030-052-05; 030-052-06; 030-052-07; 030-052-08; 066-270-43; 066-270-55; 066-270-57; and 066-270-58. Residential uses are not acceptable within APZ II; therefore, these existing residential land uses (12 parcels) within FMA's APZ II are currently inconsistent with the AELUP. Additionally, portions of the following 16 parcels, which are currently designated industrial or commercial, are located within the APZ II boundaries: APNs 030-040-16; 066-220-49; 066-220-50; 066-270-61; 066-270-76; 066-391-33; 066-391-40; 066-391-42; 070-250-54; 070-701-06; 070-701-13; 280-212-02; 280-212-03; 280-212-05; 280-212-06; and 280-212-07. Most forms of industrial and commercial uses are acceptable within APZ II; therefore, these existing industrial and commercial uses (16 parcels) within FMA's APZ II are currently consistent with the AELUP.

Private Airstrip Hazards

There are no private airstrips located within the City's vicinity. Therefore, there is not existing safety hazard in this regard.

Wildland Fire Hazards

Fullerton is a largely built-out city. Approximately 90 percent of the City has been developed, exclusive of open space and parks and recreational facilities. Minimal areas of vacant land (approximately 709 acres), which is interspersed throughout the City, remain. Notwithstanding, wildlands adjacent to urbanized areas and residences intermixed with wildlands occur in portions of the City. Exhibit 5.9-1 illustrates the severity of fire hazards in the City and indicates areas of Very High, High, and Moderate fire severity exist in the northwest portion of the City.

Additionally, areas of High and Moderate fire severity exist in the north-central portion of the City. Refer also to the Chapter 13.19, *Fire Prevention Standards*, discussion above.

5.9.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist, which was included with the Notice of Preparation to show the areas being analyzed within the EIR; refer to Appendix A of this EIR. The Initial Study includes questions relating to hazards and hazardous materials. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this Section. Accordingly, impacts involving hazards and hazardous materials resulting from implementation of The Fullerton Plan may be considered significant if they would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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;

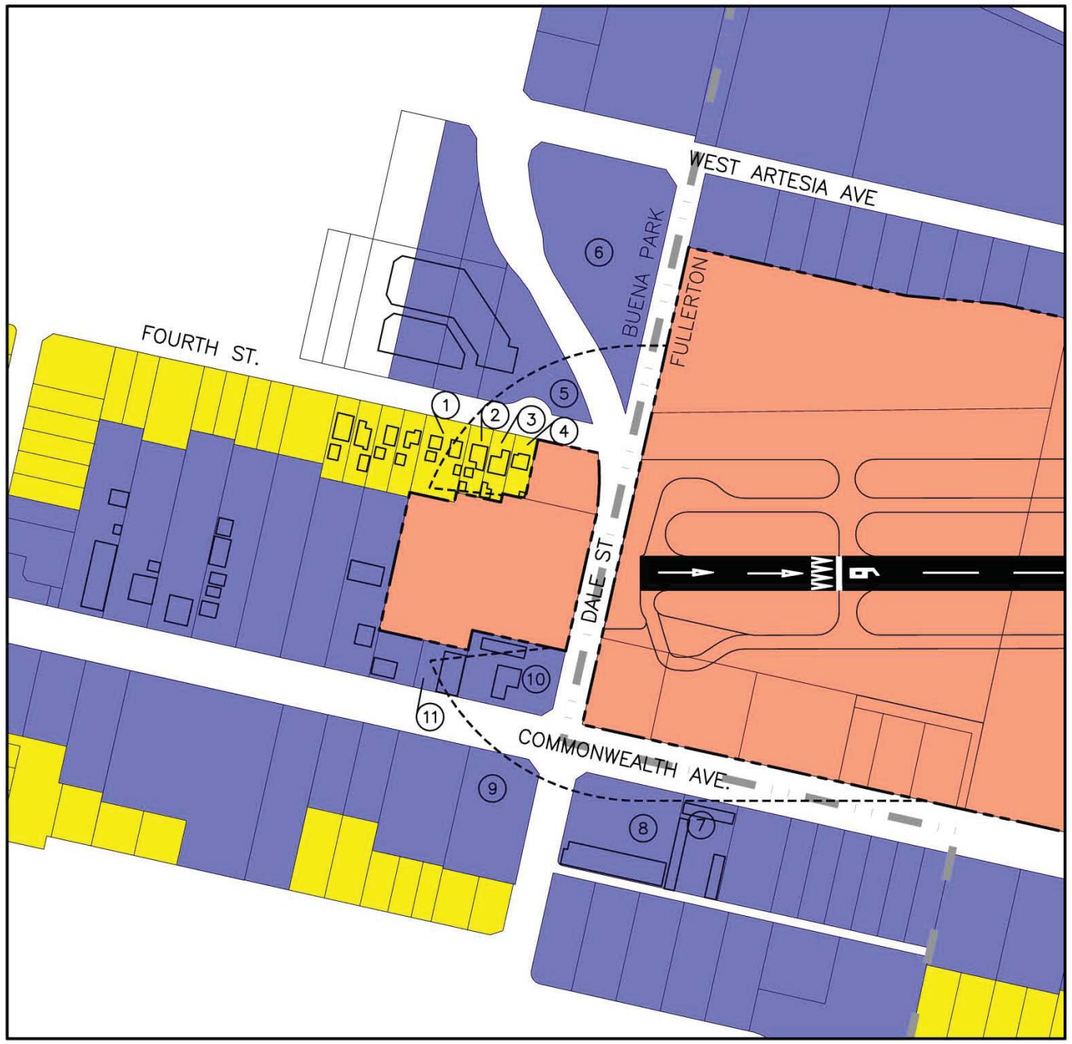
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- 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, would the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
- 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.

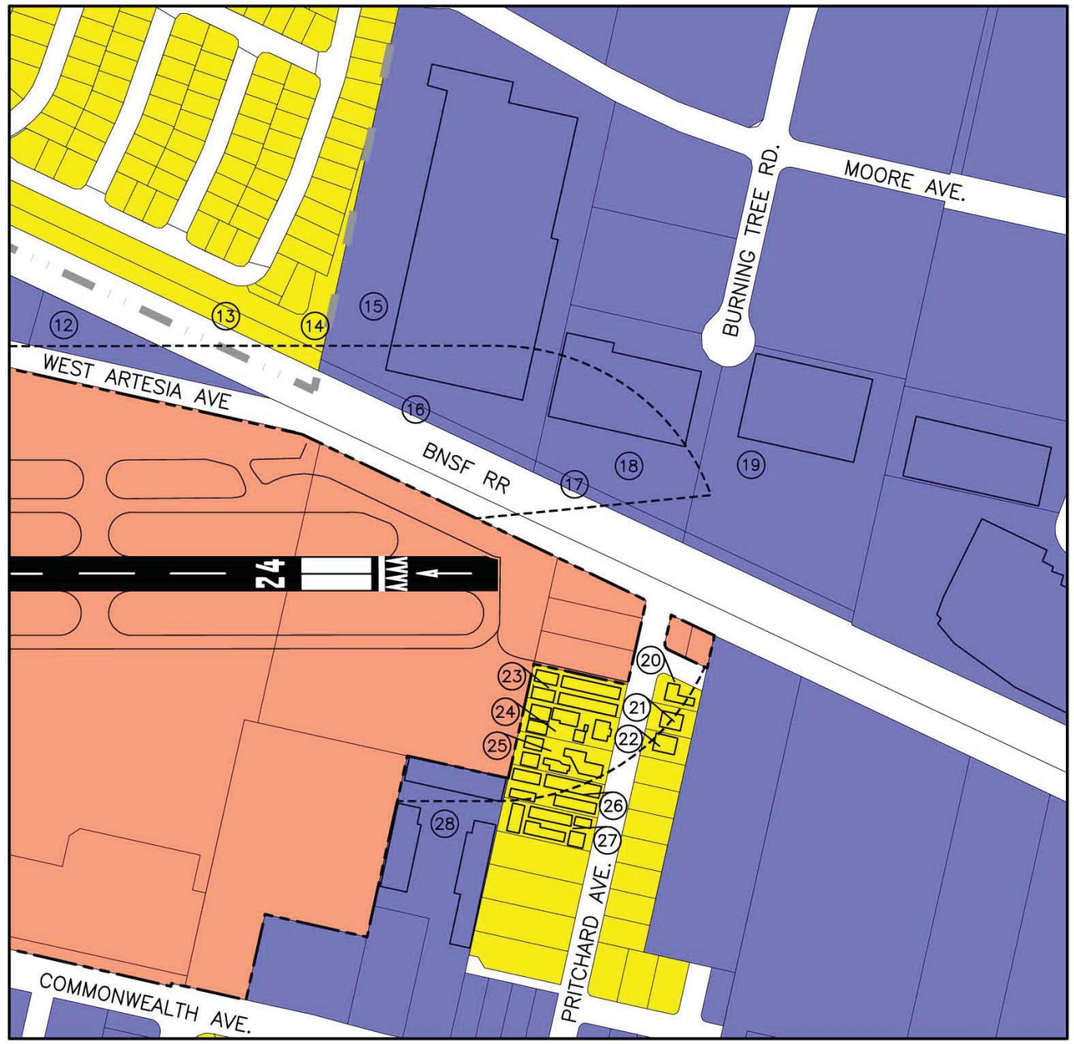
5.9.5 PROJECT IMPACTS AND MITIGATION MEASURES

ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS

- **FUTURE DEVELOPMENT IN THE CITY WOULD NOT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC AND THE ENVIRONMENT THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS.**

Impact Analysis: Many types of businesses utilize various chemicals and hazardous materials, and their routine business operations involve chemicals that are manufactured, warehoused, or transported. Currently, there are a variety of existing business operations in the City that use, store, or transport hazardous substances, as well as generate hazardous waste. Additionally, the incremental growth in non-residential uses associated with The Fullerton Plan involves an additional 10.7 million square feet of commercial, industrial, and other uses. The possibility exists that future non-residential development in the City would require or engage in operations that involve the routine transport, use, or disposal of hazardous materials, potentially creating a significant hazard to the public and/or environment. The secondary activities that would occur with commercial and residential uses (e.g., building and landscape maintenance) would also involve the use of hazardous materials.





LEGEND

- FULLERTON MUNICIPAL AIRPORT
- INDUSTRIAL OR COMMERCIAL*
- RESIDENTIAL*
- ACCIDENT POTENTIAL ZONE II
- AIRPORT PROPERTY LINE
- CITY BOUNDARY LINE

*General Plan Land Use Designations

PARCELS							
#	APN	#	APN	#	APN	#	APN
1	066-270-57	8	070-701-06	15	280-212-05	22	030-051-07
2	066-270-55	9	070-250-54	16	280-212-06	23	030-052-04
3	066-270-58	10	066-270-76	17	280-212-07	24	030-052-05
4	066-270-43	11	066-270-61	18	280-212-03	25	030-052-06
5	066-220-49	12	066-391-33	19	280-212-02	26	030-052-07
6	066-220-50	13	066-391-40	20	030-051-28	27	030-052-08
7	070-701-13	14	066-391-42	21	030-051-27	28	030-040-16

Sources: P&D Consultants, Inc.

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THE FULLERTON PLAN 2030
PROGRAM ENVIRONMENTAL IMPACT REPORT

Parcels Located Within Fullerton Municipal Airport Accident Potential Zone (APZ II)

Exhibit 5.9-4

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The types and quantities of hazardous materials utilized by the various types of businesses that could locate in the City would vary and, as a result, the nature of potential hazards would also be varied. Such substances can range from common automobile oil and household pesticides to chlorine, dry-cleaning solutions, ammonia, or substances used in commercial and industrial operations. Cleaning and degreasing solvents, fertilizers, pesticides, and other materials used in the regular maintenance of buildings and landscaping would also be utilized in the secondary activities associated with commercial and residential uses. Since The Fullerton Plan does not involve any specific development projects, no specific type of hazard associated with the anticipated growth in non-residential (i.e., commercial, industrial, etc.) uses can be identified and the likelihood of a hazard presenting a serious health or safety to the public cannot be determined at this time. The exposure of persons to hazardous materials could occur in the following manners:

- Improper handling or use of hazardous materials or hazardous wastes during construction or operation of future developments, particularly by untrained personnel;
- Transportation accident;
- Environmentally unsound disposal methods; or
- Fire, explosion, or other emergencies.

Therefore, both residential and non-residential development that occurs within the City could create a significant hazard to the public and the environment through the routine transport, use, or disposal of hazardous materials. Consequentially, this increased presence in hazardous materials in the City would increase the potential for human exposure to these substances, with possible public health and safety consequences.

All future development within the City would be subject to compliance with existing regulations, standards, and guidelines established by the Federal, State, and local agencies related to storage, use, and disposal of hazardous materials. Future development within the City would be subject to compliance with the six programs administered by the EHD, which is the CUPA with jurisdiction over the City of Fullerton, and the FFD, which has joined in partnership with the CUPA as a Participating Agency. The owners or operators of businesses that handle or store hazardous materials equal to or above the reportable quantities would be subject to compliance with the six programs. Namely, compliance with the Hazardous Waste Inspection Program would ensure that all hazardous wastes generated by Fullerton businesses are properly handled, recycled, treated, stored, and disposed. This program involves inspection of facilities that generate hazardous waste, evaluation of hazardous waste generating industries, investigation of reports of illegal hazardous waste disposal, and response to emergency hazardous chemical spills. The HMD Program would require Fullerton businesses to complete a chemical inventory form to disclose hazardous materials stored, used, or handled on site. This disclosure information would assist emergency responders in planning for and handling emergencies involving hazardous materials. Additionally, preparation of a BEP, which is intended to assist in mitigating a release or threatened release of a hazardous material and to minimize any potential harm or damage to human health or the environment, would be required. Compliance with the UST Program would ensure that hazardous materials stored in underground tanks are not released into the environment, potentially polluting ground and surface waters. Compliance with the APST Program would protect Fullerton's people and natural resources from aboveground petroleum storage tank spills or releases. Owners or operations of APST facilities would be required to file a tank facility statement, and develop and implement a Spill Prevention Control and Countermeasure (SPCC). Additionally, businesses

that handle regulated substances in industrial processes above threshold quantity levels would be subject to CalARP Program requirements. Businesses that handle regulated substances in industrial processes above threshold quantity levels would be subject to CalARP Program requirements. The CalARP Program requires the implementation of planning activities (i.e., engineering and administrative controls) intended to minimize the possibility of an accidental release. This program would also mitigate the effects of an accidental release by requiring owners or operators of facilities to develop and implement an accident prevention program, and potentially a RMP. Compliance with these programs would assist in mitigating a release or threatened release of a hazardous material and minimize any potential harm or damage to human health or the environment. Continued compliance with the City's Emergency Operations Plan, which provides guidance for the City's planned response to extraordinary emergency situations, including those associated with technological incidents (i.e., release of a hazardous materials), would also be required.

Future development anticipated by The Fullerton Plan would increase the number of persons in the City exposed to potential hazards involving the routine transport, use, or disposal of hazardous materials. While the risk of exposure to hazardous materials cannot be eliminated, measures can be implemented to maintain risk to acceptable levels. Adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials, and the safety procedures mandated by applicable Federal, State, and local laws and regulations, which would ensure that risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with implementation of The Fullerton Plan would be less than significant. In addition, The Fullerton Plan Goal 23 is to ensure the safe and efficient management of waste. To this end, Policy P23.2 is to support projects, programs, policies, and regulations to promote safe handling and disposal by households, businesses, and City operations of solid waste which has specific disposal requirements. All future development in Fullerton would be subject to compliance with Policy P23.3, which would further minimize potential impacts involving the routine transport, use, or disposal of hazardous materials.

Proposed General Plan Update Policies and Actions:

P23.2 ***Hazardous Waste***
Support projects, programs, policies and regulations to promote safe handling and disposal by households, businesses, and City operations of solid waste which has specific disposal requirements.

Mitigation Measures: No further mitigation is required beyond compliance with the proposed General Plan Update Policies and Actions.

Level of Significance After Mitigation: Less Than Significant Impact.

SHORT-TERM CONSTRUCTION-RELATED ACCIDENTAL RELEASE OF HAZARDOUS MATERIALS

- **SHORT-TERM CONSTRUCTION-RELATED ACTIVITIES ASSOCIATED WITH FUTURE DEVELOPMENT COULD CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR ENVIRONMENT THROUGH ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS.**

Impact Analysis: One of the means through which human exposure to a hazardous substance could occur is through accidental release. Incidents that result in an accidental release of a hazardous substance into the environment can cause soil, surface water, and groundwater contamination, in addition to any toxic fumes that might be generated. If not cleaned up immediately and completely, the hazardous substances can migrate into the soil or enter a local stream or channel causing contamination of soil and water. Human exposure to contaminated soil or water can have potential health effects on a variety of factors, including the nature of the contaminant and the degree of exposure.

Construction activities associated with future development within the City could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions. Hazardous material issues may exist relating to commercial/industrial sites and old buildings. Existing structures may need to be demolished prior to construction of new structures. Demolition of structures could expose construction personnel and the public to hazardous substances such as asbestos containing materials (ACM) or lead-based paints (LBP), depending on the age of the structure. In addition, the disturbance of soils and demolition of structures could expose construction workers or employees to health or safety risks in the event contaminated structures and/or soils are encountered during construction. Exposure could occur from ACM or LBP in older buildings, or unknown contaminants that have not previously been identified. It is noted that State Route 91 (SR-91) is aligned adjacent to the City's southern boundary and State Route 57 (SR-57) traverses the eastern portion of the City. The potential exists for accidental release of hazardous materials associated with SR-91 and SR-57. The potential impacts associated with accidental release of hazardous materials are discussed below.

Demolition. Specific development projects have not been identified. However, it is assumed that existing structures and buildings would be demolished as uses are redeveloped within the City. Given the age of some of the City's buildings, it is likely that these buildings could contain LBP, ACM, and/or other contaminants. As a result, construction workers and the public could be exposed. Further, the potential exists that construction activities may release potential contaminants that may be present in building materials (e.g., mold, lead, etc.). Federal and State regulations govern the renovation and demolition of structures where ACMs and LBPs are present. All demolition that could result in the release of ACMs or LBPs must be conducted according to Federal and State standards. The National Emission Standards for Hazardous Air Pollutants (NESHAP) mandates that building owners conduct an asbestos survey to determine the presence of ACMs prior to the commencement of any remedial work, including demolition. If ACM material is found, abatement of asbestos would be required prior to any demolition activities. Compliance with the recommended mitigation regarding the requirement for an asbestos survey and asbestos abatement, as well as compliance with SCAQMD Rule 1403, would reduce potential impacts to a less than significant level.

Soil and Groundwater Contamination in Unknown Contaminated Sites. Grading and excavation for future development within the City could expose construction workers and the public to unidentified hazardous substances present in the soil or groundwater. Exposure to contaminants could occur if the contaminants migrated to surrounding areas or if contaminated zones were disturbed at the contaminated location. Exposure to hazardous substances is considered potentially significant. Additionally, the potential exists for unidentified underground storage tanks (USTs) to be present on a development site. Removal activities could pose risks to workers and the public. Potential risks would be minimized by managing the tank according to existing EHD's standards. Potential impacts to groundwater would be dependent upon the type of contaminant, the amount released, and depth to groundwater at the time of the release.

Also, short-term construction/remediation processes may involve substantial amounts of excavation and grading, potentially creating water quality impacts due to off-site runoff (in which the runoff may contain contaminated soils). If groundwater contamination is identified, remediation activities would be required by the Regional Water Quality Control Board (RWQCB), prior to the commencement of construction activities. Standard short-term erosion control measures and applicable Best Management Practices (BMPs) would be implemented to ensure that runoff is properly contained on-site and that impacts in this regard are reduced to less than significant levels; refer to Section 5.8, Hydrology and Water Quality.

State Route 91 and State Route 57. Aerially deposited lead (ADL) may be encountered within state right-of-way soil. The California Department of Transportation (Caltrans) has sampled sediment adjacent to traffic lanes in major metropolitan areas and determined that lead from leaded gasoline emissions is present within these areas. Elevated lead levels have been found to be highest at the surface (zero to six inches) and decreases with depth. Levels are usually highest immediately adjacent to the traveled way and decreases with distance from the road.

Remediation would occur prior to future development on or adjacent to affected portions of a proposed development site. Future development would require appropriate discretionary review by the FFD and Community Development Department, including evaluation of site-specific conditions and, if deemed necessary, would incorporate a Remedial Action Plan (RAP) to ensure proper site cleanup prior to project implementation.

Remediation activities could expose workers, residents, and potential future project occupants to a variety of potentially hazardous materials. Although remedial processes are yet to be determined, site remediation activities are strictly controlled by Federal, State, and local requirements, and the majority of identified contaminants are petroleum-based (which are not considered "toxic" or acutely hazardous). Toxic or hazardous materials would be handled in strict accordance with existing regulations. Therefore, compliance with the required mitigation measures and regulations/approvals as administered by the RWQCB, SCAQMD, and DTSC is expected to reduce potential impacts to less than significant levels. Moreover, all remedial activities would be subject to a County-approved RAP, which must demonstrate compliance with applicable Federal and State regulations.

Despite compliance with identified remediation procedures and regulatory framework, the potential remains for the unexpected discovery of areas of contamination. In the event such wastes are uncovered, they may threaten the health of workers and the general public. Following compliance with Mitigation Measure HAZ-1, which requires preparation of a Phase I

Environmental Site Assessment, as deemed necessary by the City, implementation of the proposed Fullerton Plan would result in less than significant impacts in this regard.

Proposed General Plan Update Policies and Actions:

P23.2 ***Hazardous Waste***
Support projects, programs, policies and regulations to promote safe handling and disposal by households, businesses, and City operations of solid waste which has specific disposal requirements.

Mitigation Measures:

HAZ-1 Prior to issuance of a Grading Permit for properties considered by the City to involve the potential for site contamination, a Phase I Environmental Site Assessment shall be prepared in accordance with ASTM Standards and Standards and Practices for AAI, in order to investigate the potential existence of site contamination. Any site specific uses shall be analyzed according to the Phase I Environmental Site Assessment (i.e., auto service stations, agricultural lands, etc.). The Phase I Environmental Site Assessment shall identify Specific Recognized Environmental Conditions (RECs) (i.e., asbestos containing materials, lead-based paints, polychlorinated biphenyls, etc), which may require remedial activities prior to construction.

HAZ-2 Prior to potential remedial excavation and grading activities, impacted areas shall be cleared of all maintenance equipment and materials (e.g., solvents, grease, waste-oil), construction materials, miscellaneous stockpiled debris (e.g., scrap metal, pallets, storage bins, construction parts), above ground storage tanks, surface trash, piping, excess vegetation and other deleterious materials. These materials shall be removed off-site and properly disposed of at an approved disposal facility. Once removed, a visual inspection of the areas beneath the removed materials shall be performed. Any stained soils observed underneath the removed materials shall be sampled. In the event concentrations of materials are detected above regulatory cleanup levels during demolition or construction activities, the project Applicant shall comply with the following measures in accordance with Federal, State, and local requirements:

- Excavation and disposal at a permitted, off-site facility;
- On-site remediation, if necessary; or
- Other measures as deemed appropriate by the City of Fullerton Fire Department.

HAZ-3 Prior to structural demolition/renovation activities, should these activities occur, a Certified Environmental Professional shall confirm the presence or absence of ACM's and LBPs. Should ACMs or LBPs be present, demolition materials containing ACMs and/or LBPs shall be removed and disposed of at an appropriate permitted facility.

HAZ-4 Areas of exposed soils within Caltrans right-of-way that would be disturbed during excavation/grading activities shall be sampled and tested for lead prior to ground disturbance activities on a project-by-project basis, so that any special handling, treatment, or disposal provisions associated with aerially deposited lead may be included in construction documents (if aerially deposited lead is present).

Level of Significance After Mitigation: Less Than Significant Impact.

LONG-TERM OPERATIONS-RELATED ACCIDENTAL RELEASE OF HAZARDOUS MATERIALS

■ LONG-TERM OPERATION ACTIVITIES ASSOCIATED WITH FUTURE DEVELOPMENT COULD CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR ENVIRONMENT THROUGH ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS.

Impact Analysis: Operations of future land uses within the City in accordance with The Fullerton Plan could 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. The specific potential future increase in the amount of hazardous materials transported within and through the City, as a result of implementation of The Fullerton Plan cannot be predicted, since specific development projects are not identified. The analysis presented below examines the potential nature and magnitude of risks associated with the accidental release of hazardous materials often used during operations of typical non-residential (commercial and industrial) developments. Typical incidents that could result in accidental release of hazardous materials involve:

- Leaking underground storage tanks;
- Spills during transport;
- Inappropriate storage;
- Inappropriate use; and/or
- Natural disasters.

If not cleaned up immediately and completely, these and other types of incidents could cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. Depending on the nature and extent of the contamination, groundwater supplies could become unsuitable for use as a domestic water source. Human exposure to contaminated soil or water could have potential health effects depending on a variety of factors, including the nature of the contaminant and the degree of exposure.

Leaking Storage Tanks. Business handling chemicals and/or wastes stored in aboveground or underground storage tanks would subject to compliance with the UST and APST Programs. Compliance with the UST Program would ensure that hazardous materials stored in underground tanks are not released into the environment, potentially polluting ground and surface waters. Compliance with the APST Program would protect Fullerton's people and natural resources from aboveground petroleum storage tank spills or releases. Owners or

operations of APST facilities would be required to file a tank facility statement, and develop and implement a Spill Prevention Control and Countermeasure (SPCC).

Off-Site Transport. Transportation of hazardous materials can result in accidental spills, leaks, toxic releases, fire, or explosion. The potential exists for licensed vendors to transport hazardous materials to and from the City's future commercial and industrial uses. Accidental releases would most likely occur in the commercial areas/industrial areas and along transport routes leading to and from these areas. The City's street setback requirements minimize the direct damage that may occur from transportation-related hazardous waste spills. Additionally, the USDOT Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the Code of Federal Regulations, and implemented by Title 13 of the CCR. Appropriate documentation would be provided for all hazardous waste that is transported in connection with specific project-site activities, as required for compliance with existing hazardous materials regulations.

Future developments would be subject to compliance with all applicable Federal, State, and local laws and regulations pertaining to the transport, use, disposal, handling, and storage of hazardous waste. Compliance with all applicable Federal, State, and local laws related to the transportation of hazardous materials would reduce the likelihood and severity of accidents during transit, thereby ensuring that a less than significant impact would occur in this regard.

Storage and Handling. Hazardous materials must be stored in designated areas designed to prevent accidental release to the environment. California Building Code (CBC) requirements prescribe safe accommodations for materials that present a moderate explosion hazard, high fire or physical hazard, or health hazards. Compliance with all applicable Federal, State, and local laws related to the storage of hazardous materials would be required to maximize containment and provide for prompt and effective clean-up, if an accidental release occurs, thereby ensuring that a less than significant impact would occur.

Hazardous materials handling/use would present a slightly greater risk of accident than hazardous materials storage. However, for those employees who would work with hazardous materials, the amount of hazardous materials that are handled at any one time are generally relatively small, reducing the potential consequences of an accident during handling. Specific project-site activities would be required to comply with Federal, State, and local laws to eliminate or reduce the consequence of hazardous materials accidents.

Major hazardous materials accidents associated with commercial and industrial uses are infrequent, and it is not anticipated additional emergency response capabilities would be necessary, in order to respond to the potential incremental increase in the number of incidents that could result from future development within the City. Notwithstanding, the FFD Operations/Training Division would provide 24-hour emergency response for controlling Hazardous Materials Incidents occurring throughout the City. Responding hazardous materials specialists would ensure that public health and safety, along with the environment, are protected from hazardous material releases. Additionally, all future development within the City would be subject to compliance with the CalARP, which requires any business that handles more than threshold quantities of a Regulated Substance (RS) to develop a Risk Management Plan (RMP). The RMP is implemented by the business to prevent or mitigate releases of regulated substances that could have off-site consequences. Additionally, as discussed above, all future development within the City would be subject to compliance with the HW Program, which

requires that all hazardous wastes that would be generated by Fullerton businesses be properly handled, recycled, treated, stored, and disposed. Compliance with the UST Program would ensure that hazardous materials stored in underground tanks are not released into the environment, potentially polluting ground and surface waters, and compliance with the APST Program would protect people and natural resources from aboveground petroleum storage tank spills or releases. The HMD Program would require Fullerton businesses to disclose hazardous materials stored, used, or handled on site. Additionally, completion of a BEP would assist in mitigating a release or threatened release of a hazardous material and minimizing any potential harm or damage to human health or the environment. Compliance with these programs would assist in mitigating a release or threatened release of a hazardous material and minimize any potential harm or damage to human health or the environment. Continued compliance with the City's Emergency Operations Plan would also be required.

Oversight by the appropriate agencies and compliance with measures established by Federal, State, and local regulatory agencies is considered adequate to offset the negative effects related to the reasonably foreseeable upset and accident conditions involving the release of hazardous materials in the City. Compliance with the established regulatory framework and recommended mitigation measures would ensure that these potential impacts are less than significant by requiring compliance with applicable laws and regulations that would reduce the risk of hazardous materials use, transportation, and handling through the implementation of established safety practices, procedures, and reporting requirements.

Proposed General Plan Update Policies and Actions:

P23.2 ***Hazardous Waste***
Support projects, programs, policies and regulations to promote safe handling and disposal by households, businesses, and City operations of solid waste which has specific disposal requirements.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-4.

Level of Significance After Mitigation: Less Than Significant Impact.

HAZARDOUS MATERIALS IN PROXIMITY TO A SCHOOL

- **FUTURE DEVELOPMENT WITHIN THE CITY WOULD NOT EMIT OR HANDLE HAZARDOUS EMISSIONS WITHIN ONE-QUARTER MILE OF AN EXISTING SCHOOL.**

Impact Analysis: Schools are located within and adjacent to the City, as illustrated on The Fullerton Plan Exhibit 23, *Educational Institutions*, and further described in Section 5.14, School Facilities. As discussed previously, the incremental growth in non-residential uses associated with The Fullerton Plan involves an additional 10.7 million square feet of commercial and industrial uses. Hazardous materials could be used during construction of commercial/industrial uses within the City, including the use of standard construction materials (e.g., paints, solvents, and fuels), cleaning and other maintenance products (used in the maintenance of pumps, pipes, and equipment), and diesel and other fuels (used in construction and maintenance equipment and vehicles). Additionally, future development may include businesses that utilize chemicals

and hazardous materials, and their routine business operations involve chemicals that are manufactured, warehoused, or transported. The secondary activities that would occur with commercial and residential uses (e.g., building and landscape maintenance) would also involve the use of hazardous materials. Therefore, the possibility exists that construction or routine operations associated with future commercial development in the City would involve transport, use, or disposal of hazardous materials, within one-quarter mile of an existing school.

Although hazardous materials and waste generated from future development may pose a health risk to nearby schools, disclosure to the EHD (HMD Program's chemical inventory form) is required for any business that uses, handles, or stores hazardous materials or waste materials equal to or in excess of the basic quantities. Among other requirements, businesses must also prepare a BEP, in order to assure that businesses have appropriate procedures and policies in place and employees and contractors have adequate training for responding to a hazardous materials incident at the facility. The short- and long-term transport, use, and disposal of hazardous materials would be subject to a wide range of laws and regulations intended to minimize potential health risks associated with their use or the accidental release of such substances. Compliance with existing regulations discussed above would minimize the risks to schools associated with the exposure to hazardous materials. This impact would be less than significant.

Proposed General Plan Update Policies and Actions: No goals or policies in The Fullerton Plan pertain specifically to hazardous materials in proximity to a school.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

HAZARDOUS MATERIAL SITES

- **FUTURE DEVELOPMENT WITHIN THE CITY COULD BE LOCATED ON A HAZARDOUS MATERIALS SITE CREATING A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT.**

Impact Analysis: As discussed in Section 5.9.3, Existing Environmental Setting, there are various hazardous material sites located within the City. Potential hazards to construction workers and the public may occur from construction activities on existing sites that may be contaminated. Future development of any of these documented hazardous materials sites would require prior remediation and cleanup under the supervision of the DTSC, in order to meet Federal, State, and local standards. Since The Fullerton Plan does not include any specific development projects, future development would be evaluated on a project-by-project basis to determine if such sites are listed on a current regulatory hazardous materials site list. The recommended mitigation measures would reduce potential impacts in this regard to less than significant levels.

Proposed General Plan Update Policies and Actions: No goals or policies in The Fullerton Plan pertain specifically to hazardous materials sites.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-4 outlined above.

Level of Significance After Mitigation: Less Than Significant Impact.

AIRPORT SAFETY HAZARDS

- **FUTURE DEVELOPMENT IN THE CITY COULD RESULT IN AIRPORT-RELATED SAFETY HAZARDS FOR PEOPLE RESIDING OR WORKING IN THE PROJECT AREA.**

Impact Analysis: Fullerton Municipal Airport (FMA) is located in the western portion of the City. FMA is within the oversight of the Orange County Airport Land Use Commission (ALUC). The ALUC prepared and adopted the *Airport Environs Land Use Plan for Fullerton Municipal Airport* (AELUP), which seeks to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, among other objectives. FMA's Runway Protection Zone (Clear Zone) (RPZ) and Accident Potential Zones (APZ) are illustrated on the AELUP Appendix D map *Airport Impact Zones Fullerton Municipal Airport*. The AELUP has set forth policies and criteria by which a local action can be reviewed and a determination made of its consistency/inconsistency with the AELUP. Moreover, the AELUP has established Specific Policies pertaining to RPZs and APZ II, as outlined above in Section 5.9.3, Existing Environmental Setting. To fulfill the purpose of the AELUP, land use within the AELUP planning area boundaries would be required to conform to these Specific Policies.

Pursuant to the Specific Policies for the RPZ and APZ II, some of the existing land uses indicated in Exhibits 5.9-3 and 5.9-4 are prohibited and unacceptable within the RPZ and APZ II. Namely, 21 residential, industrial, or commercial parcels within FMA's RPZ are currently inconsistent with the AELUP, since only airport-related and open space uses are permitted in the RPZ. Additionally, 12 residential parcels within FMA's APZ II are currently inconsistent with the AELUP, since residential uses are not acceptable within APZ II. As concluded in Section 5.1, Land Use and Planning, Government Code Section 65302.3 requires General Plans to eliminate direct conflicts between mapped land use designations in a General Plan and the ALUC criteria. A key responsibility of the ALUC is to review particular types of local actions (such as a General Plan Update) for compliance with the criteria and policies set forth in their adopted AELUP. According to Exhibit 3-3, *Community Development Plan*, which illustrates The Fullerton Plan proposed official policy relative to land use and community development, the airport area is designated Industrial, Government, and Low/Medium Density Residential. The Fullerton Plan does not propose a change to the airport area's community development types. Given there are currently prohibited and unacceptable uses within the RPZ and APZ II, and The Fullerton Plan would conflict with the AELUP criteria and policies with respect to these current uses (refer also to Section 5.1, Land Use and Planning), project implementation would result in a safety hazard for people residing or working in these 33 parcels and a significant and unavoidable impact would occur in this regard.

The Fullerton Plan has identified 12 Focus Areas, which would receive an Overlay Designation; refer to Exhibit 3-4, *Focus Area Map*. As indicated on Exhibit 3-4, FMA and its surroundings are located within the Airport Industrial Focus Area. The Airport Industrial Focus Area is envisioned as a primary industrial area characterized by large sites and buildings for continued and

expanded industrial uses, and related businesses. Nominal to moderate change is anticipated to occur within this Focus Area through infill, reuse, revitalization, and redevelopment. Table 3-4, *Projected Land Use Change – Focus Areas*, summarizes the change over existing conditions that is anticipated to occur within each Focus Area and indicates 84 additional dwelling units and 252,019 additional square feet of non-residential land uses are anticipated within the Airport Industrial Focus Area. For parcels within a Focus Area Overlay Designation, the underlying community development type applies until a specific plan, master plan, or other implementing document is prepared, at which point a General Plan Amendment would be adopted to re-designate the land, if necessary.

Future development in the Airport Industrial Focus Area would be subject to compliance with the AELUP's Specific Policies pertaining to RPZs and APZ II. The proposed land uses would be analyzed for consistency with the AELUP on a case-by-case basis through the specific plan, master plan, or other entitlement process, and implementation of certain conditions, mitigation, or design measures may be required. The Specific Policies for each zone would provide the necessary limitations to reduce the potential impacts of airport-related accidents to persons and property on the ground associated with future development. Moreover, it is the City's goal (Goal 12) to proactively address public safety concerns. To this end, all future development within the Airport Industrial Focus Area would be subject to compliance with Policy P12.8, which specifies that the City support policies, projects, programs, and regulations that provide for safe and efficient airport operations through compliance with the Airport Master Plan and the Orange County Airport Land Use Commission's AELUP. Future development would also be subject to compliance with Policies P12.8, P13.3, P13.4, and P13.5, which would further minimize potential airport-related safety hazards. Therefore, following compliance with the AELUP's Specific Policies for RPZ and APZ II, and the General Plan specified policies, future development anticipated by The Fullerton Plan would not result in a safety hazard for people residing or working in the Airport Industrial Focus Area and a less than significant impact would occur in this regard. However, as stated, given there are currently prohibited and unacceptable uses within the RPZ and APZ II, and The Fullerton Plan does not propose to change these current development types, project implementation would project implementation would result in a safety hazard for people residing or working in these parcels and a significant and unavoidable impact would occur in this regard.

The specific land use regulations regarding FAA notification imaginary surfaces and aircraft noise have been addressed in Section 5.1, Land Use and Planning, and Section 5.5, Noise, respectively.

Proposed General Plan Update Policies and Actions:

P12.8 ***Airport Safety Standards***
Support policies, projects, programs, and regulations that provide for safe and efficient airport operations through compliance with the Fullerton Municipal Airport (FMA) Master Plan and the Airport Land Use Commission for Orange County's Airport Environs Land Use Plan for FMA and the Airport Environs Land Use Plan for Heliports.

P12.11 ***Public Safety in Focus Areas***
Support projects, programs, policies and regulations to proactively address public safety concerns as part of community-based planning of Focus Areas.

P13.3 ***Disaster Hazard Reduction***
Support policies, projects, programs and regulations that reduce structural and non-structural hazards to life safety, minimize property damage and resulting social, cultural and economic dislocations resulting from future disasters.

P13.4 ***Disaster Risk Reduction***
Support programs that promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response.

P13.5 ***Community Emergency Preparedness***
Support policies, programs and regulations that ensure the City, its residents, businesses, and services are prepared for effective response and recovery in the event of emergencies or disasters, including the provision of information about the current nature and extent of local safety hazards and emergency plans, including evacuation plans and procedures to accommodate special needs populations (information should be provided in multiple languages to maximize understanding by community members).

Mitigation Measures: No additional mitigation measures are available beyond compliance with the AELUP and General Plan Update Policies outlined above.

Level of Significance After Mitigation: Significant Unavoidable Impact.

EMERGENCY EVACUATION PLAN

- **FUTURE DEVELOPMENT WITHIN THE CITY COULD INTERFERE WITH AN ADOPTED EMERGENCY RESPONSE PLAN OR EVACUATION PLAN.**

Impact Analysis: Construction activities associated with future development in the City could temporarily impact street traffic adjacent to the proposed development sites during the construction phase due to roadway improvements and potential extension of construction activities into the right-of-way. This could reduce the number of lanes or temporarily close certain street segments during a typical day-to-day emergency situation. Any such impacts would be limited to the construction period and would affect only adjacent streets or intersections. With implementation of the recommended mitigation, which would ensure that temporary street closures would not affect emergency access in the vicinity of future developments, impacts would be less than significant. All future developments would be required to provide sufficient emergency access, as required by the Zoning Code.

The City's Emergency Operations Plan anticipates that all major streets within the City would serve as evacuation routes. City highways and arterial streets that connect to the Artesia Freeway (State Route 91) and Orange Freeway (State Route 57) would serve as potential evacuation routes, in the event of an extraordinary emergency situation. The City's highways and arterial streets maintain minimum right-of-way widths, which would continue to ensure that various evacuation routes are accessible to residents. Additionally, the City's Emergency Operations Plan, which provides guidance for the City's planned response to extraordinary emergency situations associated with natural disasters, terrorism, technological incidents, and nuclear defense operations, would continue to be implemented. As such, future development

within the City would not interfere with an adopted emergency response plan and/or the emergency evacuation plan and less than significant impacts would occur. In order to further minimize potential interferences with emergency evacuation, mitigation has been recommended which involves preparation of a Traffic Control Plan and consultation with the Fullerton Police Department.

The Fullerton Plan has also identified as a goal (Goal 12) to proactively address public safety concerns. Additionally, it is the City's goal (Goal 13) to be responsive to public safety needs. To these ends, all future development within the City would be subject to compliance with Policies P12.11, P13.3 through P13.5, and Action A12.1, which would further minimize potential interferences with an adopted emergency response plan or evacuation plan. Less than significant impacts would occur in this regard.

Proposed General Plan Update Policies and Actions:

P12.11 ***Public Safety in Focus Areas***
Support projects, programs, policies and regulations to proactively address public safety concerns as part of community-based planning of Focus Areas.

A12.1 ***Fire and Emergency Preparedness Education***
Develop and deliver an in-person and on-line training and educational program for community members on fire prevention and emergency preparedness.

P13.1 ***Inter-City Coordination***
Support regional and subregional efforts to: coordinate as appropriate Continuity of Operations Plan, plans and procedures for Emergency Operations Centers, and emergency response training systems; maintain inter-agency and public communications systems that will provide mutual aid and be reliable during and following an emergency; and, formulate definitive plans and procedures for evacuation of hazard-prone areas and high risk uses.

P13.2 ***Adequate Resources for Emergencies***
Support policies and programs that ensure adequate resources are available in all areas of the City to respond to health, fire, and police emergencies.

P13.3 ***Disaster Hazard Reduction***
Support policies, projects, programs and regulations that reduce structural and non-structural hazards to life safety, minimize property damage and resulting social, cultural and economic dislocations resulting from future disasters.

P13.4 ***Disaster Risk Reduction***
Support programs that promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response.

P13.5 ***Community Emergency Preparedness***
Support policies, programs and regulations that ensure the City, its residents, businesses, and services are prepared for effective response and recovery in the event of emergencies or disasters, including the provision of information about the current nature and extent of local safety hazards and emergency plans, including

evacuation plans and procedures to accommodate special needs populations (information should be provided in multiple languages to maximize understanding by community members).

P13.6 ***Inter-Department Coordination***
Support policies and programs that improve the coordination of disaster-related programs within City departments.

P13.7 ***New Technologies for Fire and Police Services***
Support policies, programs, and regulations which are based on research and evaluation and that implement new technologies and methods to improve the efficiency and effectiveness of fire and police services.

P13.10 ***Community Education on Emergency Preparedness***
Support policies and programs to involve and educate the Fullerton community in emergency preparedness.

A13.1 ***CERT Program***
Promote and conduct seminars in schools and other civic and neighborhood locations to teach citizens how to prepare for potential emergencies and provide ample opportunities for Community Emergency Response Training (CERT) so that community members can serve as civilian volunteers during an emergency.

Mitigation Measures:

HAZ-5 Prior to construction, future developers shall prepare a Traffic Control Plan for implementation during the construction phase, as deemed necessary by the City Traffic Engineer. The Plan may include the following provisions, among others:

- At least one unobstructed lane shall be maintained in both directions on surrounding roadways.
- At any time only a single lane is available, the developer shall provide a temporary traffic signal, signal carriers (i.e., flagpersons), or other appropriate traffic controls to allow travel in both directions.
- If construction activities require the complete closure of a roadway segment, the developer shall provide appropriate signage indicating detours/alternative routes.

HAZ-6 The City Community Development Department shall consult with the Fullerton Police Department to disclose temporary closures and alternative travel routes, in order to ensure adequate access for emergency vehicles when construction of future projects would result in temporary lane or roadway closures.

Level of Significance After Mitigation: Less Than Significant Impact.

WILDLAND FIRES

- **FUTURE DEVELOPMENT IN THE CITY WOULD NOT EXPOSE PEOPLE OR STRUCTURES TO SIGNIFICANT RISK INVOLVING WILDLAND FIRES.**

Impact Analysis: Wildlands adjacent to urbanized areas and residences intermixed with wildlands occur in portions of the City. Areas of Very High, High, and Moderate fire severity exist in the northwest portion of the City, and areas of High and Moderate fire severity exist in the north-central portion of the City; refer to Exhibit 5.9-1. The Fullerton Plan's proposed official policy relative to land use and community development is illustrated on Exhibit 3-3. As indicated on Exhibit 3-3, the areas classified Very High fire hazard severity zone are primarily designated Greenbelt Concept. Other development types existing in the Very High (as well as High and Moderate) fire hazard severity zones are Low Density Residential, Medium Density Residential, and Religious Institutions. The Fullerton Plan does not propose to change the current community development types within these fire hazard severity zones, with one exception: APN 287-122-01 (generally located southwest of the intersection of Rosecrans Avenue and Gilbert Street). Implementation of The Fullerton Plan would change this property's development type from Private Open Space to Greenbelt Concept. The Greenbelt Concept is implemented through Master Specific Plans, which establish planning areas for residential development and allocate density and permitted dwelling unit totals. The Greenbelt Concept encourages the clustering of residential uses and permits an overall average residential density of 3.0 DU/AC.

The Fullerton Plan has identified 12 Focus Areas, which would receive an Overlay Designation; refer to Exhibit 3-4. As indicated on Exhibit 3-4, an area of Very High fire hazard severity involves the West Coyote Hills Focus Area. The West Coyote Hills Focus Area is envisioned as the largest open space area in the City. Connectivity between the trail systems in and around the Focus Area would improve access to recreational and educational opportunities for residents and sustainable best management practices would preserve the important natural resources in the area. Nominal to moderate change is anticipated to occur within this Focus Area through infill, reuse, revitalization, and redevelopment. Table 3-4 summarizes the change over existing conditions that is anticipated to occur within each Focus Area and indicates 760 additional dwelling units and 69,697 additional square feet of non-residential land uses are anticipated within the West Coyote Hills Focus Area. For parcels within a Focus Area Overlay Designation, the underlying community development type applies until a specific plan, master plan, or other implementing document is prepared, at which point a General Plan Amendment would be adopted to re-designate the land, if necessary.

Wildland fires represent potentially significant safety hazards. Dense chaparral vegetation burns quickly and can cause fires to spread to adjacent development. Fire hazards at the urban-wildlands interface is a potential problem that threatens life and property. Therefore, implementation of The Fullerton Plan would expose people or structures to a significant risk involving wildland fires. This potential impact is considered significant unless mitigated. However, pursuant to FMC Chapter 13.19, *Fire Prevention Standards*, owners of property within fire hazard severity zones must comply with the FFD's Fire Prevention Standard on Fuel Modification Plans and Maintenance, and Fire Prevention Standard on Brush Clearance; refer to FMC Section 13.19.020 (Compliance With Fuel Modification Plans and Maintenance), and FMC Section FMC Section 13.19.030 (Protection Areas), respectively. All future development would be analyzed for consistency with FMC Chapter 13.19 on a case-by-case basis through the

specific plan, master plan, or other entitlement process, and implementation of certain conditions, mitigation, or design measures may be required. Compliance with the specified fire prevention standards would provide the necessary limitations to reduce the exposure of people or structures to risk involving wildland fires to less than significant. Moreover, it is the City's goal (Goal 12) to proactively address public safety concerns. It is also the City's goal (Goal 26) to protect people and the natural and built environments and economy from natural hazards. To these ends, all future development within areas classified Very High, High, or Moderate fire hazard severity zones, and the West Coyote Hills Focus Area, would be subject to compliance with Policy P26.5, which requires the City to support projects, programs, policies, and regulations to utilize hazard specific development regulations to mitigate risks associated with identified potential natural hazards, including wildland fires (among others), when development does occur. Additionally, Action A26.4 requires landscape and building plans to incorporate defensible space between natural vegetation and buildings, on-site fire detection and automatic sprinkler systems, non-combustible roofing materials (tile or concrete), and other appropriate mitigation measures, for projects within Wildfire Threat Areas. Future development would also be subject to compliance with the additional Policies outlined below, which would further minimize potential wildland fire hazards. Therefore, following compliance with FMC Chapter 13.19 and The Fullerton Plan specified policies, project implementation would not expose people or structures to a significant risk involving wildland fires and a less than significant impact would occur in this regard.

Proposed General Plan Update Policies and Actions:

P12.11 ***Public Safety in Focus Areas***
Support projects, programs, policies and regulations to proactively address public safety concerns as part of community-based planning of Focus Areas.

A12.1 ***Fire and Emergency Preparedness Education***
Develop and deliver an in-person and on-line training and educational program for community members on fire prevention and emergency preparedness.

P13.1 ***Inter-City Coordination***
Support regional and subregional efforts to: coordinate as appropriate Continuity of Operations Plan, plans and procedures for Emergency Operations Centers, and emergency response training systems; maintain inter-agency and public communications systems that will provide mutual aid and be reliable during and following an emergency; and, formulate definitive plans and procedures for evacuation of hazard-prone areas and high risk uses.

P13.2 ***Adequate Resources for Emergencies***
Support policies and programs that ensure adequate resources are available in all areas of the City to respond to health, fire, and police emergencies.

P13.3 ***Disaster Hazard Reduction***
Support policies, projects, programs and regulations that reduce structural and non-structural hazards to life safety, minimize property damage and resulting social, cultural and economic dislocations resulting from future disasters.

P13.4 ***Disaster Risk Reduction***
Support programs that promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response.

P13.5 ***Community Emergency Preparedness***
Support policies, programs and regulations that ensure the City, its residents, businesses, and services are prepared for effective response and recovery in the event of emergencies or disasters, including the provision of information about the current nature and extent of local safety hazards and emergency plans, including evacuation plans and procedures to accommodate special needs populations (information should be provided in multiple languages to maximize understanding by community members).

P13.6 ***Inter-Department Coordination***
Support policies and programs that improve the coordination of disaster-related programs within City departments.

P13.7 ***New Technologies for Fire and Police Services***
Support policies, programs, and regulations which are based on research and evaluation and that implement new technologies and methods to improve the efficiency and effectiveness of fire and police services.

P13.10 ***Community Education on Emergency Preparedness***
Support policies and programs to involve and educate the Fullerton community in emergency preparedness.

A13.1 ***CERT Program***
Promote and conduct seminars in schools and other civic and neighborhood locations to teach citizens how to prepare for potential emergencies and provide ample opportunities for Community Emergency Response Training (CERT) so that community members can serve as civilian volunteers during an emergency.

P24.6 ***Watershed Management***
Support projects, programs, policies and regulations to manage open space watersheds to limit potential fire and erosion hazards.

A24.2 ***Interdepartmental Coordination and Collaboration***
Establish an interdepartmental coordination process to regularly address planning, design, and other matters (e.g. encroachments; updates to habitat, conservation and fire management policies; conditions of development applications; etc.) pertaining to open space.

P26.1 ***Regional Coordination***
Support projects, programs, policies and regulations to coordinate planning for and response to natural disasters with other agencies within the region.

P26.2 ***Adequate Emergency Response Infrastructure***
Support projects, programs, policies and regulations to prepare to respond to natural disasters to the best of the City's ability.

P26.3 ***Focus Area Planning***
Support projects, programs, policies, and regulations to consider natural hazard risks and mitigation as part of community-based planning of Focus Areas.

P26.4 ***Minimization of Development in High Risk Areas***
Support projects, programs, policies and regulations to discourage or limit development within areas that are vulnerable to natural disasters, particularly in areas with recurring damage and/or the presence of multiple natural hazards.

P26.5 ***Hazard Specific Development Regulations***
Support projects, programs, policies and regulations to utilize hazard specific development regulations to mitigate risks associated with identified potential natural hazards, including flooding, wildland fires, liquefaction, and landslides when development does occur.

A26.4 ***Wildland Fires***
For projects within Wildfire Threat Areas (see [General Plan] Exhibit 17), require landscape and building plans to incorporate defensible space between natural vegetation and buildings, on-site fire detection and automatic sprinkler systems, non-combustible roofing materials (tile or concrete), and other appropriate mitigation measures.

Mitigation Measures: No further mitigation is required beyond compliance with the General Plan Update Policies and Actions specified above.

Level of Significance After Mitigation: Less Than Significant Impact.

5.9.6 CUMULATIVE IMPACTS

- **FUTURE DEVELOPMENT RESULTING FROM IMPLEMENTATION OF THE FULLERTON PLAN COULD RESULT IN CUMULATIVE IMPACTS RELATED TO HAZARDS AND HAZARDOUS MATERIALS.**

Impact Analysis: For this topic, the cumulative impacts are analyzed in terms of impacts within the City of Fullerton. An increase in population within the City of Fullerton would occur from implementation of The Fullerton Plan. This may increase demand on the City's public health and safety services. New residential development may be located in proximity or adjacent to uses involving hazardous materials, which would increase the amount of persons exposed to threats and also increases the likelihood the City health and safety services would be utilized. Additionally, new non-residential development may consist of additional facilities that use, store, produce or transport hazardous wastes, and therefore would utilize City and County health and safety services and increased exposure to residents who may also be employees of those businesses. As noted above, impacts related to hazards and hazardous materials would be reduced to less than significant through compliance with the established Federal, State, and local regulatory framework, the specified mitigation measures, and The Fullerton Plan Policies and Actions.

As with projects resulting from buildout of The Fullerton Plan, regional projects would be required to evaluate their respective public health and safety impacts on a project-by-project basis. Development occurring within the region would be required to comply with the Federal, State, and local regulatory framework regarding the use, disposal, and transport of hazardous materials. The additional contribution of The Fullerton Plan would be less than significant regarding public health and safety impacts at a cumulative level. Thus, implementation of The Fullerton Plan would not result in cumulatively considerable public health or safety impacts with implementation of recommended mitigation measures.

Proposed General Plan Update Policies and Actions: Refer to the Policies and Actions cited above.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 to HAZ-6.

Level of Significance After Mitigation: Less Than Significant Impact.

5.9.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Given there are currently prohibited and unacceptable uses within the RPZ and APZ II, and The Fullerton Plan would conflict with the AELUP criteria and policies with respect to these current uses (refer also to Section 5.1, Land Use and Planning), project implementation would result in a safety hazard for people residing or working in the specified 33 parcels and a significant unavoidable impact would occur in this regard.

5.9.8 SOURCES CITED

City of Fullerton, City of Fullerton General Plan, June 1994.

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