

5. Environmental Analysis

5.8 HAZARDS AND HAZARDOUS MATERIALS

This section evaluates the potential impacts of buildout of the Santa Ana General Plan update (GPU) on human health and the environment due to exposure to hazardous materials or conditions associated with the city and its sphere of influence (plan area). Potential impacts and appropriate mitigation measures are included as necessary.

The City of Santa Ana received several comments on the original Draft PEIR centered around industrial corridors, land use compatibility, and lead contamination. The lack of focused environmental assessment in on disadvantaged communities, and the evidence of pollutant concentrations, including lead-contaminated soils, in environmental justice (EJ) communities were recurring comments on the original Draft PEIR.

Senate Bill (SB) 1000 adds to the required elements of a general plan an environmental justice element, or related goals, policies, and objectives integrated in other elements, that identifies disadvantaged communities within the area covered by the general plan. SB 1000 mandates that general plans address environmental justice but does not require California Environmental Quality Act (CEQA) analyses to address EJ issues. However, in response to the concerns raised during the public review period for the original Draft PEIR, the City chose to recirculate Section 5.8 and expand the discussion/analysis to address community concerns.

The Recirculated Draft PEIR was supplemented with hazardous-materials-related EJ policies and implementation actions, shown in Section 5.8.4.2, to demonstrate that the GPU complies with the requirements of SB 1000. These EJ policies and implementation actions also aim to address EJ-related hazardous materials impacts. Since it is not the responsibility of the EIR to address existing environmental inequities of disadvantaged communities, the impact discussion in the recirculated section described impacts to EJ communities related to development pursuant to the GPU. The expanded discussion was provided to disclose the City's commitment to the needs of EJ communities.

In addition, one of the basic purposes of environmental justice is to provide disadvantaged communities with a meaningful opportunity to engage in government decisions that affect them. A detailed discussion of the City's efforts to fully engage with the historically disadvantaged communities in its jurisdiction is in Section 2.4, *Environmental Justice Outreach*, of this updated Draft PEIR.

5.8.1 Environmental Setting

5.8.1.1 REGULATORY BACKGROUND

Environmental Justice

Senate Bill 1000

SB 1000 adds to the required elements of a general plan an environmental justice element, or related goals, policies, and objectives integrated in other elements, that identifies disadvantaged communities, as defined, within the area covered by the general plan of a city or county that has a disadvantaged community. This bill

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also requires the environmental justice element, in whatever form, to identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities.

Hazardous Materials and Waste

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (household cleaners, industrial solvents, paint, pesticides, etc.) and in the manufacturing of products (e.g., electronics, newspapers, plastic products). Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials can happen from a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

There are many federal, state, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste, and they are constantly changing. Federal and state statutes as well as local ordinances and plans regulate hazardous waste management. These regulations can reduce the danger that hazardous substances pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976 is the principal federal law that regulates the generation, management, and transportation of waste. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste. Treatment is any process that changes the physical, chemical, or biological character of the waste to reduce its potential as an environmental threat. Treatment can include neutralizing the waste, recovering energy or material resources from the waste, rendering the waste less hazardous, or making the waste safer to transport, dispose of, or store.

The RCRA gave the US Environmental Protection Agency (EPA) the authority to control hazardous waste from “cradle to grave,” that is, from generation to transportation, treatment, storage, and disposal. The RCRA also sets up a framework for the management of nonhazardous wastes. The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. It should be noted that RCRA focuses only on active and future facilities and does not address abandoned or historical sites. The federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that required phasing out land disposal of hazardous waste. Some of the other mandates of this strict law include increased enforcement authority for the EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) is a law developed to protect the water, air, and soil resources from the risks created by past chemical disposal practices. This law is also referred to as the Superfund Act and regulates sites on the National Priority List, which are

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called Superfund sites. This law provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment (US Code Title 42, Chapter 103). CERCLA establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified.

Superfund Amendments and Reauthorization Act

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

Emergency Planning and Community Right to Know Act

The Emergency Planning and Community Right to Know Act (EPCRA) was enacted by Congress as the national legislation on community safety. The act required the establishment of state commissions, planning districts, and local committees to facilitate the preparation and implementation of emergency plan. Under its requirements, local emergency planning committees (LEPC) are responsible for developing a plan for preparing for and responding to a chemical emergency, including:

- An identification of local facilities and transportation routes where hazardous materials are present.
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan).
- A plan for notifying the community that an incident has occurred.
- The names of response coordinators at local facilities.
- A plan for conducting drills to test the plan.

The emergency plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The LEPC is required to review, test, and update the plan each year. The Orange County Health Care Agency, Environmental Health Division (OCHCA) is responsible for coordinating hazardous material and disaster preparedness planning and appropriate response efforts with city departments and local and state agencies. The goal is to improve public and private sector readiness and to mitigate local impacts resulting from natural or man-made emergencies.

Another purpose of the EPCRA is to inform communities and citizens of chemical hazards in their areas. Sections 311 and 312 of EPCRA require businesses to report to state and local agencies the location and quantities of chemicals stored on-site. Under section 313 of EPCRA, manufacturers are required to report chemical releases for more than 600 designated chemicals. In addition to chemical releases, regulated facilities are also required to report off-site transfers of waste for treatment or disposal at separate facilities, pollution

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prevention measures, and chemical recycling activities. The EPA maintains the Toxic Release Inventory database that documents the information that regulated facilities are required to report annually.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 was enacted by Congress to give the EPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The EPA repeatedly screens these chemicals and can require reporting or testing of any that may pose an environmental or human health hazard. It can ban the manufacture and import of chemicals that pose an unreasonable risk. Also, the EPA has mechanisms in place to track the thousands of new chemicals that industry develops each year with either unknown or dangerous characteristics. It then can control these chemicals as necessary to protect human health and the environment. The act supplements other federal statutes, including the Clean Air Act and the Toxic Release Inventory under EPCRA.

Hazardous Materials in Structures: Asbestos-Containing Materials and Lead-Based Paint

Several regulations and guidelines pertain to abatement of and protection from exposure to asbestos-containing materials (ACM) and lead-based paint (LBP), including Construction Safety Orders 1529 (pertaining to ACM) and Section 1532.1 (pertaining to LBP) from Title 8 of the California Code of Regulations, and Part 61, Subpart M, of the Code of Federal Regulations (pertaining to ACM). In California, ACM and LBP abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services. Asbestos is also regulated as a hazardous air pollutant under the Clean Air Act and a potential worker safety hazard under the authority of Cal/OSHA.

Requirements for limiting asbestos emissions from building demolition and renovation are specified in the South Coast Air Quality Management District's Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). California Government Code Sections 1529 and 1532.1 provide for exposure limits, exposure monitoring, respiratory protection, and good working practice by workers exposed to lead and ACMs.

Business Plan Act

Both the federal government¹ and the State of California² require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials—termed a reporting quantity—to submit a hazardous materials business plan to the local certified Unified Program agency (CUPA).

A Business Plan must be submitted by businesses that handle a hazardous material or a mixture containing a hazardous material in quantities equal to or greater than:

- 500 pounds of a solid
- 55 gallons of a liquid

¹ Code of Federal Regulations, EPA, SARA, and Title III.

² California State Health and Safety Code, Division 20, Chapter 6.95, §§ 25500–25520; California Code of Regulations, Title 19, Chapter 2, Sub-chapter 3, Article 4, §§ 2729–2734.

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- 200 cubic feet of a compressed gas at standard temperature and pressure
- The federal Threshold Planning Quantity for Extremely Hazardous Substances
- Radioactive materials in quantities for which an emergency plan is required per Parts 30, 40, or 70 of the Code of Federal Regulations, Title 10, Chapter 1

The Business Plan must include the type and quantity of hazardous materials, a site map, risks of using these materials, spill prevention, emergency response, employee training, and emergency contacts.

Hazardous Materials Transportation

Section 31303 of the California Vehicle Code and the US Department of Transportation regulate hazardous materials transport. The California Highway Patrol and California Department of Transportation are the enforcement agencies. The California Office of Emergency Services provides emergency response services involving hazardous materials incidents.

Hazardous Materials Incident Response

Under Title III of SARA, the LEPC is responsible for developing an emergency plan for preparing for and responding to chemical emergencies. This emergency plan must include:

- An identification of local facilities and transportation routes where hazardous materials are present.
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan).
- A plan for notifying the community that an incident has occurred.
- The names of response coordinators at local facilities.
- A plan for conducting exercises to test the plan.

The plan is reviewed by the state emergency response commission (SERC) and publicized throughout the community. The LEPC is required to review, test, and update the plan each year. The OCHCA is responsible for coordinating hazardous material coordination and inspection in Santa Ana.

Hazardous Material Spill/Release Notification Guidance

All significant spills, releases, or threatened releases of hazardous materials must be immediately reported. Federal and state emergency notification is required for all significant releases of hazardous materials. Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. Many state statutes require emergency notification of a hazardous chemical release:

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- Health and Safety Codes Sections 25270.7, 25270.8, and 25507
- Vehicle Code Section 23112.5
- Public Utilities Code Section 7673, (PUC General Orders #22-B, 161)
- Government Code Sections 51018, 8670.25.5 (a)
- Water Code Sections 13271, 13272
- California Labor Code Section 6409.1 (b)10

In addition, all releases that result in injuries or workers harmfully exposed must be immediately reported to California Occupational Safety and Health Administration (California Labor Code Section 6409.1 [b]). For additional reporting requirements, also refer to the Safe Drinking Water and Toxic Enforcement Act of 1986, better known as Proposition 65, and Section 9030 of the California Labor Code.

The California Accidental Release Prevention (CalARP) program became effective on January 1, 1997, in response to Senate Bill 1889. CalARP replaced the California Risk Management and Prevention Program. Under the CalARP, the Governor's Office of Emergency Services must adopt implementing regulations and seek delegation of the program from the EPA. CalARP aims to be proactive and therefore requires businesses to prepare risk management plans, which are detailed engineering analyses of the potential accident factors present at a business, and the mitigation measures that can be implemented to reduce this accident potential. In most cases, local governments have the lead role for working directly with businesses in this program. The OCHCA is the CUPA designated as the administering agency for CalARP.

Responsible agencies that regulate hazardous materials and waste include:

United States EPA. The EPA is the primary federal agency that regulates hazardous materials and waste. In general, the EPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The agency is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. EPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing trash. Under the authority of the RCRA and in cooperation with state and tribal partners, the Waste Management Division manages a hazardous waste program, an underground storage tank program, and a solid waste program that includes development of waste reduction strategies such as recycling.

California EPA. CalEPA was created in 1991 by Governor's Executive Order. Six boards, departments, and an office were placed under the CalEPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to ensure the coordinated deployment of state resources. CalEPA oversees hazardous materials and hazardous waste compliance throughout California.

California Department of Toxic Substances Control. The DTSC is a department of CalEPA, which authorizes DTSC to carry out the RCRA program in California to protect people from exposure to hazardous wastes. The department regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California Health and Safety Code Division 20,

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Chapter 6.5) and the Hazardous Waste Control Regulations (Title 22, California Code of Regulations, Divisions 4 and 4.5). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow state and federal requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. DTSC also maintains a Site Mitigation and Brownfields Reuse Program Database.

Under the DTSC, the Statewide Compliance Division (SCD) administers the technical implementation of the state's Unified Program, a consolidation of six environmental programs at the local level. This program was established under the amendments to the California Health and Safety Code made by Senate Bill 1082 in 1994. The six programs that make up the Unified Program are:

- Hazardous Materials Business Plan/Emergency Response Plan
- Hazardous Waste/Tiered Permitting
- Underground Storage Tanks
- Aboveground Storage Tanks Spill Prevention Control and Countermeasures
- California Accidental Release Prevention Program (CalARP)
- Uniform Fire Code Hazardous Materials Management Plan

The SCD also conducts triennial reviews of Unified Program agencies to ensure their programs are consistent statewide, conform to standards, and deliver quality environmental protection at the local level. SCD also carries out the inspections, enforcement, and complaint response at the state's hazardous waste generators, facilities, and transporters and oversees the hazardous waste generator and on-site waste treatment surveillance and enforcement program carried out by local Unified Programs.

Certified Unified Program Agency. A CUPA is a local agency that has been certified by CalEPA to implement the local Unified Program. The CUPA can be a county, city, or joint powers authority. A participating agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within the jurisdiction on behalf of the CUPA. A designated agency is a local agency that has not been certified by CalEPA but is the responsible local agency that would implement the six Unified Programs until it is certified.

The Unified Program is related to the SERC and LEPCs that were established under both federal (EPCRA) and state authority relative to the Hazardous Materials Business Plan/Emergency Response Plan. While the CUPA structure does not specifically incorporate the SERC and LEPCs, both SERC and CUPA have found it beneficial to establish strong communication and coordination on hazardous materials issues. The CUPA board now has a representative on the SERC, and members of LEPCs are also CUPA board members. Common issues include ensuring that hazardous materials, waste, and tank programs maintain strong coordination and communication for maximum consistency in program implementation. Shared data, joint resources, common forms, provision of emergency information, and regulatory review are other interests that are coordinated by the CUPA Board and SERC/LEPCs.

The OCHCA is designated by the state as the CUPA for the County of Orange. The OCHCA focuses on the management of specific environmental programs at the local government level to address the disposal, handling, processing, storage, and treatment of local hazardous materials and waste products. The CUPAs are

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also responsible for implementing the leak prevention element of the Underground Storage Tank (UST) Program.

Programs that regulate hazardous materials and waste include:

UST Program. Releases of petroleum and other products from USTs are the leading source of groundwater contamination in the United States. The RCRA Subtitle I established regulations governing the storage of petroleum products and hazardous substances in USTs and the prevention and cleanup of leaks. In EPA Region 9 (California, Arizona, Hawaii, Nevada, Pacific Islands, and over 140 tribal nations) the UST program operates primarily through state agency programs with EPA oversight. In California, the State Water Resources Control Board (SWRCB), under the umbrella of CalEPA, provides assistance to local agencies enforcing UST requirements. The purpose of the UST program is to protect public health and safety and the environment from releases of petroleum and other hazardous substances. The program consists of four elements: leak prevention, cleanup, enforcement, and tank tester licensing. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs, including groundwater analytical data, the surveyed locations of monitoring wells, and other data. The SWRCB's GeoTracker system currently has information submitted by responsible parties for over 10,000 leaking UST (LUST) sites statewide and has been extended to include all SWRCB groundwater cleanup programs, including the LUST, non-LUST (Spill, Leaks, Investigation, and Cleanup), Department of Defense, and landfill programs.

The OCHCA is charged with the responsibility of conducting compliance inspections of regulated facilities in Orange County. Regulated facilities are those that handle hazardous materials, generate or treat hazardous waste, and/or operate an underground storage tank. Non-petroleum USTs receive oversight from OCHCA through the Orange County UST Program (OCUST). All new installations of underground storage tanks require an inspection, along with the removal of the old tanks under strict chain-of-custody protocol.

Hazardous Waste Management. OCHCA implements the Hazardous Waste Generator Program and the Hazardous Waste Treatment/Tiered Permit Program throughout Orange County. The purpose of these programs is to ensure that all hazardous waste generated in Orange County businesses are properly handled, recycled, treated, stored and disposed. Environmental Health staff in these programs inspects facilities that generate hazardous waste, investigate reports of illegal hazardous waste disposal, and respond to emergency spills of hazardous chemicals. Environmental Health staff also participates in public education programs designed to inform industries and residents about the laws and regulations relating to safe disposal of hazardous waste.

Airports

Airport authorities and other agencies regulate aircraft activity. The City has no direct authority over airport development and operations. The State Aeronautics Act of the California Public Utilities Code (Sections 21001 et seq.) establishes statewide requirements for the airport land use compatibility planning and requires nearly every county to create an Airport Land Use Commission (ALUC) or other alternative. The Orange County ALUC is responsible for airport land use planning in the county.

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Federal Aviation Administration

The basic responsibilities of the Federal Aviation Administration (FAA), under the US Department of Transportation, are the regulation of civil aviation to promote safety, airspace and air traffic management, and the regulation of commercial space transportation. The Code of Federal Regulations contains standards for aircraft noise emission levels and for protecting navigable airspace near airports from intrusion by structures.

John Wayne Airport Environs Land Use Plan

The California ALUC Planning Handbook provides planning guidance to ALUCs and counties and cities with jurisdiction over airport area land uses. The purpose of the handbook is to support the State Aeronautics Act. The handbook allows jurisdictions flexibility in determining air safety zones that represent areas of assumed accident potential. To fulfill their purpose, ALUCs have two specific duties according to the Handbook:

- Prepare Compatibility Plans—Each commission is required to “prepare and adopt” an airport land use plan for each of the airports within its jurisdiction (Section 21674 (c) and 21675(a)).
- Review Local Agency Land Use Actions and Airport Plans—The commissions’ second duty is to “review the plans, regulations, and other actions of local agencies and airport operators....” (Section 21674(d))

The Orange County ALUC has adopted an airport environs land use plan (AELUP) for John Wayne Airport. The 2008 AELUP intends, for the 20-year planning future for John Wayne Airport, to safeguard the general welfare of the inhabitants within the vicinity of the airport and to ensure the continued operation of the airport. Specifically, the plan 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 implementation of the plan forestalls urban encroachment on the airport (ALUC 2008). The compatibility plan for John Wayne Airport affects the City of Santa Ana, and building height restrictions specified in the AELUP apply in the city. The AELUP requirements for building heights are:

- a) Buildings and structures shall not penetrate Federal Aviation Regulation (FAR) Part 77, Obstruction—Imaginary Surfaces, for John Wayne Airport unless approved by the Airport Land Use Commission (ALUC).
- b) In compliance with FAR Part 77, applicants proposing buildings or structures that penetrate the 100:1 Notification Surface shall file a Form 7460-1, Notice of Proposed Construction or Alteration with the FAA. A copy of the FAA application shall be submitted to the ALUC and the applicant shall provide the City with FAA and ALUC responses.
- c) Development projects that include structures higher than two hundred (200) feet above existing grade shall be submitted to the ALUC for review. In addition, projects that exceed a height of two hundred (200) feet above existing grade shall file Form 7460-1 with the Federal Aviation Administration (FAA).

Table 5.8-1 below depicts land use compatibility from the AELUP which breaks out areas into safety zones.

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Table 5.8-1 Land Use Compatibility: John Wayne Airport Safety Zones

Safety Zone	Land Use Compatibility
1	<ul style="list-style-type: none"> • Airport ownership of property encouraged • Prohibit all new structures • Prohibit residential land uses • Avoid nonresidential uses except if very low intensity in character and confined to the sides and outer end of the area
2	<ul style="list-style-type: none"> • Prohibit residential uses except on large, agricultural parcels • Limit nonresidential uses to activities which attract few people (uses such as shopping centers, most eating establishments, theaters, meeting halls, multi-story office buildings, and labor-intensive manufacturing plants unacceptable) • Prohibit children's schools, day care centers, hospitals, nursing homes • Prohibit hazardous uses (e.g. aboveground bulk fuel storage)
3	<ul style="list-style-type: none"> • Limit residential uses to very low densities (if not deemed unacceptable because of noise) • Avoid nonresidential uses having moderate or higher usage intensities (e.g., major shopping centers, fast food restaurants, theaters, meeting halls, buildings with more than three aboveground habitable floors are generally unacceptable) • Prohibit children's schools, large day care centers, hospitals, nursing homes
4	<ul style="list-style-type: none"> • In undeveloped areas, limit residential uses to very low densities (if not deemed unacceptable because of noise); if alter- native uses are impractical, allow higher densities as infill in urban areas • Limit nonresidential uses as in Zone 3 • Prohibit children's schools, large day care centers, hospitals, nursing homes
5	<ul style="list-style-type: none"> • Avoid residential uses unless airport related (noise usually also a factor) • Allow all common aviation-related activities provided that height-limit criteria are met • Limit other nonresidential uses similarly to Zone 3, but with slightly higher usage intensities • Prohibit children's schools, large day care centers, hospitals, nursing homes
6	<ul style="list-style-type: none"> • Allow residential uses • Allow most nonresidential uses; prohibit outdoor stadiums and similar uses with very high intensities • Avoid children's schools, large day care centers, hospitals, nursing homes

Source: ALUC 2008.

Emergency Preparedness

Emergency Management is part of the Santa Ana Police Department's Homeland Security Division and works with all City departments, Orange County Fire Authority, Orange County's Emergency Management Division, Santa Ana Unified School District, the American Red Cross, other county departments and agencies, and surrounding cities to provide emergency preparedness and coordination when man-made and natural disasters occur.

The City of Santa Ana has prepared a draft emergency operations plan to ensure the most effective allocation of resources for the maximum benefit and protection of the civilian population in time of emergency. The objective of the draft emergency operations plan is to incorporate and coordinate all available City resources into an efficient organization capable of responding to any emergency. While no plan can completely prevent death and destruction, good plans carried out by knowledgeable and well-trained personnel will minimize losses. This plan establishes the emergency organization and assigns tasks and general procedures. It provides for

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coordination of planning efforts of the various emergency staff and service elements using the Standardized Emergency Management System and National Incident Management System with all levels of government.

The City of Santa Ana has a natural hazards mitigation plan (HMP). The HMP includes resources and information to assist city residents, public- and private-sector organizations, and others interested in participating in planning for natural hazards. The HMP provides a list of activities that may help Santa Ana reduce risk and prevent loss from future natural hazard events. The HMP identifies four primary hazard risk areas—earthquakes, flooding, climate change and epidemic/pandemic hazards.

5.8.1.2 EXISTING CONDITIONS

Environmental Justice Communities

Refer to Section 4.4.3 for a discussion of CalEnviroScreen (CES) and a description of how CalEPA identifies disadvantaged communities. Furthermore, Figure 2-1, *EJ Communities, Neighborhoods, and Focus Areas*, shows the 23 census tracts within Santa Ana that are EJ communities. The figure also shows Santa Ana neighborhoods that are entirely or partially within an EJ community census tract. Appendix A-b, *Environmental Justice Background and Analysis for the General Plan Update*, includes tables that provide a summary of CES scores for each of the 23 census tracts.

Lead Concentrations

Elevated lead (Pb) concentrations in soil were found in socioeconomically disadvantaged census tracts in Santa Ana. Lead in the soil is a persistent exposure source in community settings due in part to limited disturbances of soil and limited degradation of lead. Figure 5.8-1, *Cumulative Risk Index Scores for Lead in Soils*, depicts Santa Ana census tracts according to a cumulative risk index score. The cumulative risk index score considers social and economic factors in conjunction with average soil Pb concentrations.³ As shown in Figure 5.8-1, the cluster of census tracts in the central part of the city, just south of the I-5 freeway, had the highest cumulative risk scores. Higher concentrations near roadways may be explained by historical use of leaded gasoline in vehicles, making traffic emissions an important historical source of lead in the atmosphere and surrounding environment. Similarly, increased lead concentrations in residential areas may be explained by the historical use of lead-based paint. Lead paint was historically used on houses and other buildings. Disturbance of these painted surfaces through building renovations, demolitions, and weathering over time is therefore another likely contributor to soil lead in the city. Moreover, residents have expressed concern about several metal processing plants in Santa Ana (Masri 2020).

Land Use Compatibility

Another hazardous materials issue in EJ communities in Santa Ana is land use compatibility between industrial and residential, recreational, and institutional uses. Santa Ana includes an existing industrial land use corridor that runs in the eastern part of the city, from the French Court neighborhood to the Delhi neighborhood. This

³ The six social and economic factors that affect a community's health risk due to lead exposure include: median household income, percent of housing units occupied by renters, percent of population under age five, percent of residents reporting speaking limited or no English, percent of residents without health insurance coverage, and percent of residents with a college education or higher.

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corridor also runs through the French Park, Logan, Lacy, Lyon Street, Madison Park, Cornerstone Village, Cedar Evergreen, and Memorial Park neighborhoods (see Figure 5.2-3, *EJ Communities and Existing Industrial Land Use*). All these neighborhoods have residences, schools, and recreational areas near industrial facilities. Land compatibility concerns in EJ communities in the city are related to health impacts from toxic air releases, contamination from cleanup sites, groundwater threats from containers and tanks of hazardous chemicals, and the potential for pollutant releases from hazardous waste generators.

Toxic Releases and Cleanup Sites

People of color and low-income residents are more likely to live in areas with higher toxic chemical releases and are at greater risk for health-related issues. The EPA maintains a toxic substance inventory of on-site releases to air, water, and land and underground injection of any classified chemical, as well as quantities transferred off-site. Data shows that most of Orange County is negatively impacted by a high concentration of toxic releases, with a percentile ranking of 80 to 100 percent. The entire city of Santa Ana ranks in the 90th to 100th percentile in terms of toxic releases, like many cities in Los Angeles and Orange counties (see Figure 5.8-2, *CalEnviroScreen 4.0, Toxic Release Facilities and Percentiles in Santa Ana*).

Another source of pollution from industrial uses are toxic cleanup sites. Chemicals in the buildings, soil, or water at cleanup sites can move into nearby communities through the air or water. Figure 5.8-3, *CalEnviroScreen 4.0, Cleanup Sites in Santa Ana*, shows that most cleanup sites are in EJ communities, with the majority in the south and east areas of the city along the existing industrial corridor previously mentioned. The cleanup site percentile for the neighborhoods in this industrial corridor rank in the 80th to 100th percentile when measured against other census tracts in California.

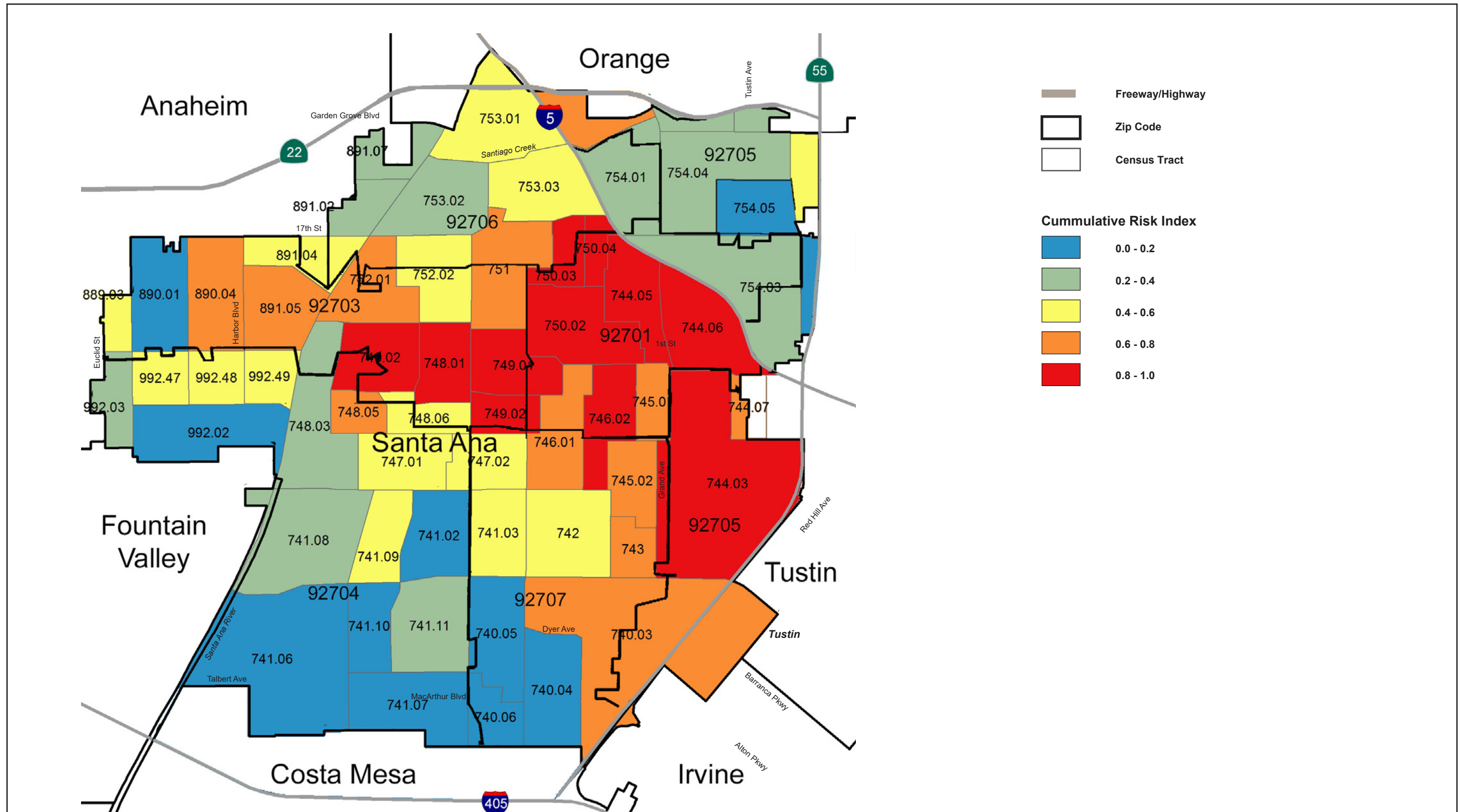
Hazardous Waste Generators

Contamination of air, water, and soil near waste generators and other facilities can harm the environment as well as people. The CES calculates a hazardous waste indicator by considering the number of DTSC-permitted treatment, storage, and disposal facilities or generators of hazardous waste; the weight of each generator or site; and the distance to the census tract. As shown in Figure 5.8-4, *CalEnviroScreen 4.0, Hazardous Waste Generators and Percentiles in Santa Ana*, hazardous waste exposure is significant in nearly all environmental justice communities in Santa Ana. The neighborhoods in the city's eastern industrial corridor rank in the top 80th to 100th percentile across the state. Groundwater threats in Santa Ana are significant in the east and southeast areas, which include the neighborhoods of Delhi, Cedar Evergreen, Cornerstone Village, Lyon Street, Madison Park, and Memorial Park. These areas are near or among light and heavy industrial uses.

Hazardous Materials Sites

Three environmental databases were searched for listings in the City of Santa Ana on January 14, 2019—GeoTracker, maintained by the State Water Resources Control Board; EnviroStor, maintained by the Department of Toxic Substances Control; and RCRAInfo, maintained by the EPA. Findings of the database searches are presented in Tables 5.8-2, 5.8-3, and 5.8-4.

Figure 5.8-1 - Cumulative Risk Index Scores for Lead in Soils



Note: 1 = Greater and 0 = Less Risk Related to PB Exposure.

Source: Elsevier, 2020

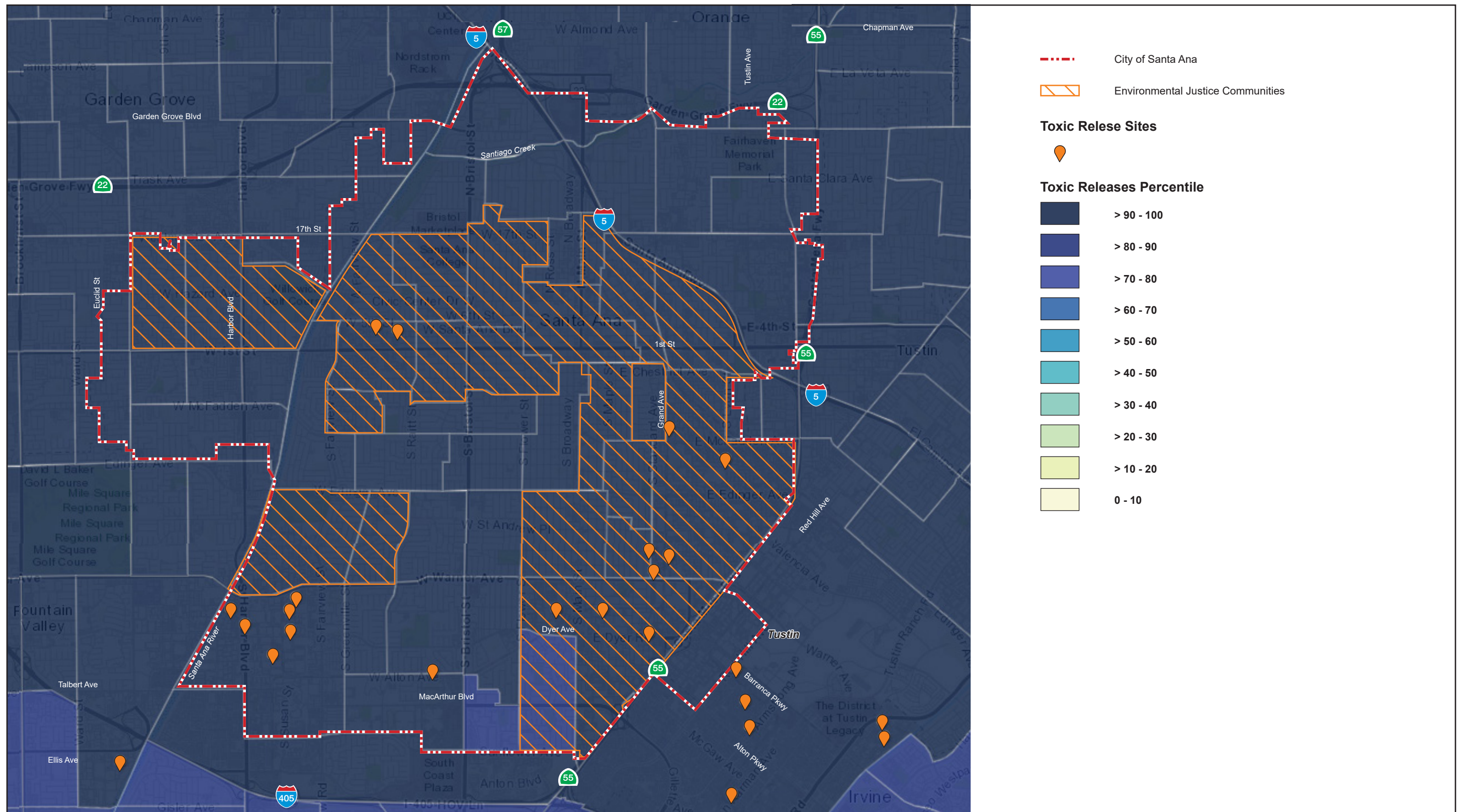


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Figure 5.8-2 - CalEnviroScreen 4.0, Toxic Release Facilities and Percentiles in Santa Ana



Source: CalEnviroScreen, 2021

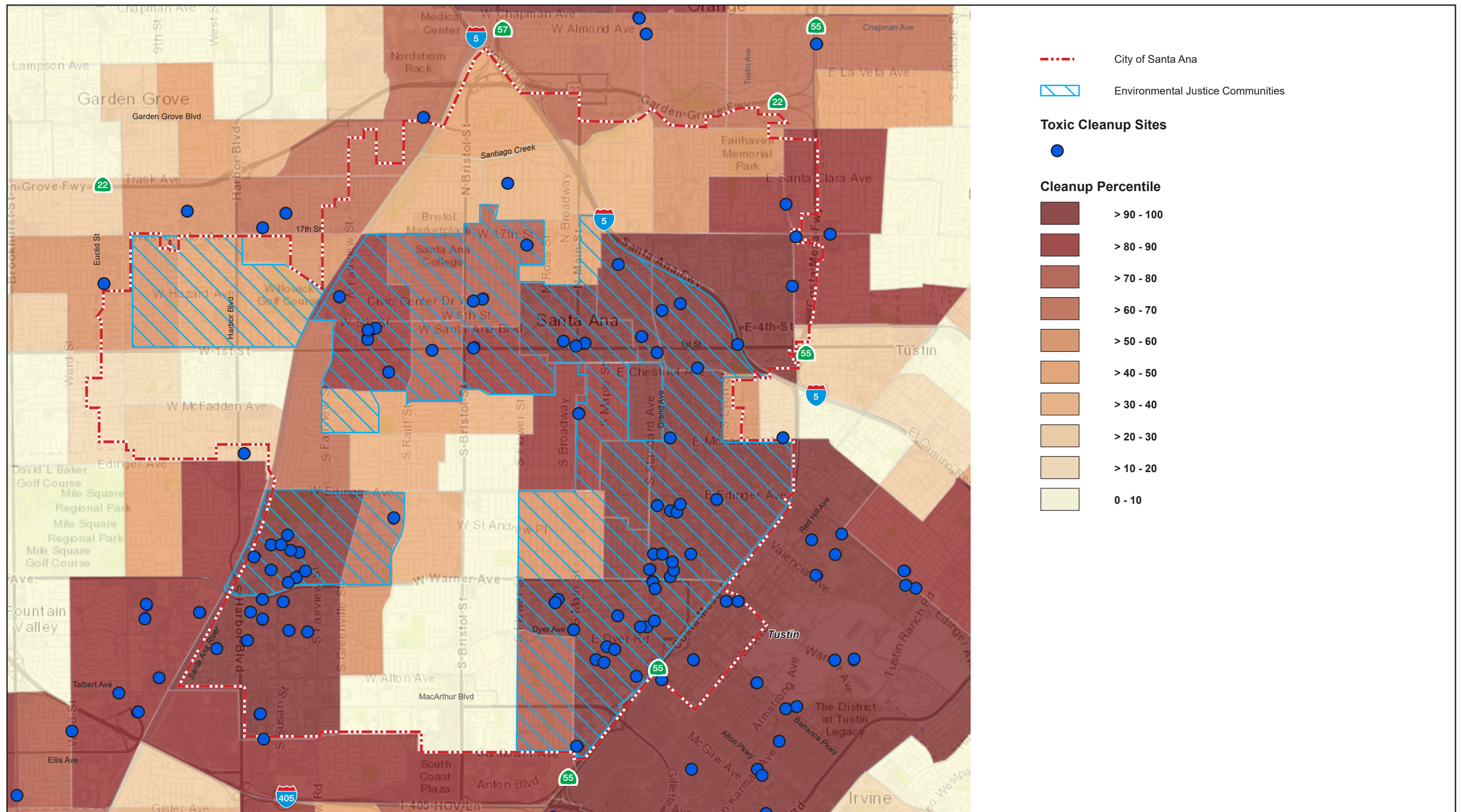


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Figure 5.8-3 - CalEnviroScreen 4.0, Cleanup Sites in Santa Ana



Source: CalEnviroScreen, 2021

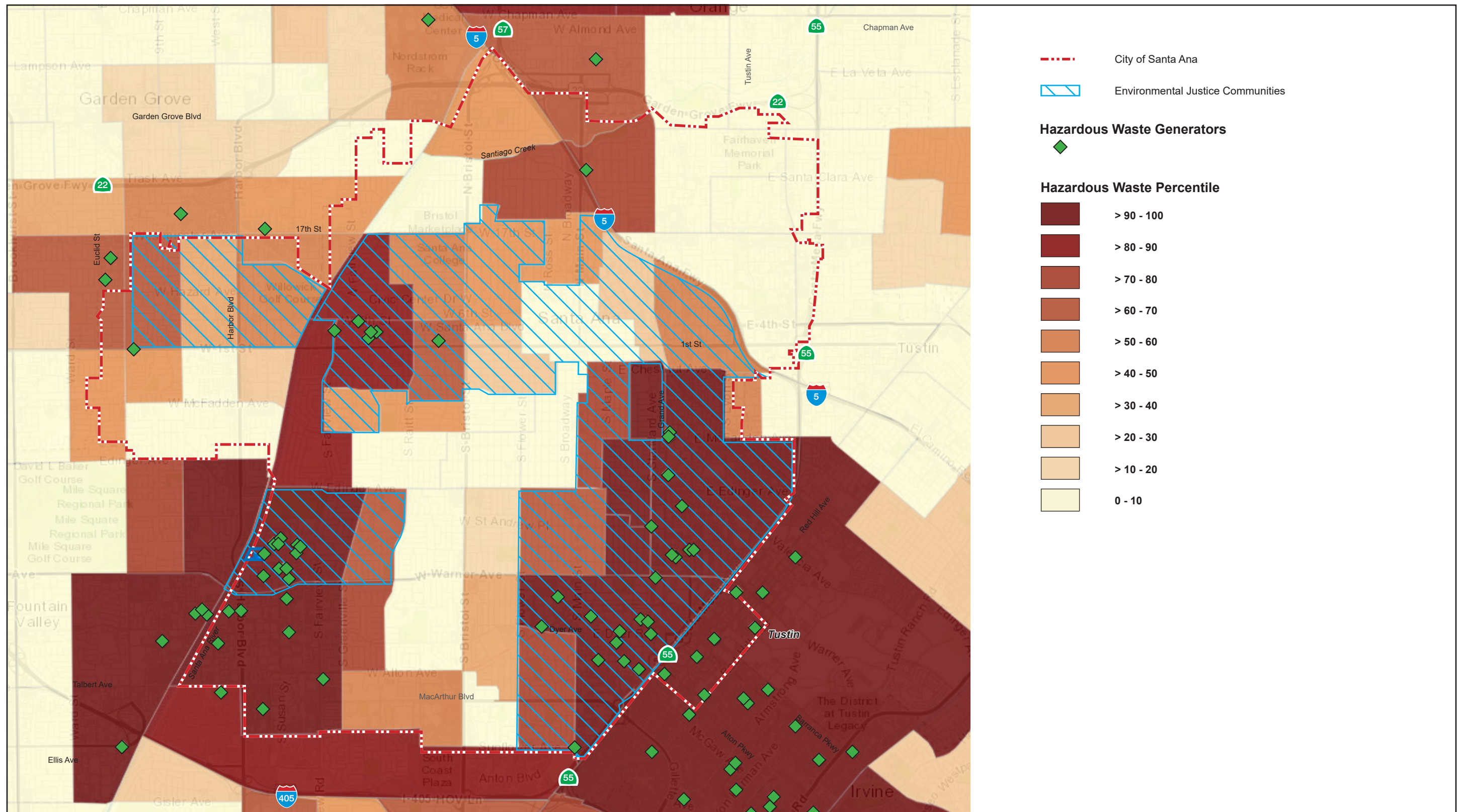


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Figure 5.8-4 - CalEnviroScreen 4.0, Hazardous Waste Generators and Percentiles in Santa Ana



Source: CalEnviroScreen, 2021



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Table 5.8-2 GeoTracker Sites in Santa Ana

Type of Site	Status	Number of Sites
Leaking Underground Storage Tank (LUST)	Completed – Case Closed	215
	Open – Eligible For Closure	5
	Open - Remediation	15
	Open – Site Assessment	8
	Open – Verification Monitoring	6
	Open – Assessment and interim Remedial Action	1
	Open – Inactive	1
	Subtotal, Open Cases	36
	Total	251
Cleanup Program Site	Completed– Case Closed	22
	Open – Remediation	13
	Open – Verification Monitoring	1
	Open – Inactive	6
	Open – Site Assessment	13
	Open – Eligible for Closure	1
	Open – Assessment and interim Remedial Action	1
	Subtotal, Open Cases	35
	Total	57
Permitted Underground Storage Tanks	NA	74
Total		382

Source: SWRCB 2019.
Note: NA = Not Applicable

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Table 5.8-3 EnviroStor Sites in Santa Ana

Type of Site	Status	Number of Sites
Corrective Action Sites	Active	4
	Refer: RWQCB	1
	Refer: SMBRP	1
	No Further Action	3
	Inactive – Needs Evaluation	1
	Total	10
Evaluation Sites	Refer: RWQCB	11
	Refer: 1248 Local Agency	14
	Inactive – Needs Evaluation	2
	No Action Required	2
	Total	29
Military Evaluation Sites	Inactive - Needs Evaluation	7
	Active	1
	Total	8
Tiered Permit	Active	2
	Certified O&M - Land Use Restrictions Only	1
	Inactive - Needs Evaluation	30
	No Action Required	10
	Refer: Local Agency	3
	Refer: Other Agency	2
	Total	48
State Response	Refer: RWQCB	1
	No Further Action	1
	Certified	1
	Active	4
	Total	7
Permits	Non-Operating	9
	Operating	1
	Total	10
School Investigation	Inactive - Needs Evaluation	5
	Inactive - Needs Evaluation	9
	Total	14
School Cleanup	Certified	3
	Inactive - Needs Evaluation	1
	Total	4
Total		130

Source: DTSC 2019.

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Table 5.8-4 RCRA Info Sites in Santa Ana

Facility Name	Number of Sites
Transporter	123
Large Quantity Generators	18
Small Quantity Generators	110
Conditionally Exempt Small Quantity Generators	2
Permitted Wastewater Discharging Facilities	172
Toxics Release Inventory (TRI)	101
Total	526

Source: USEPA 2019a, 2019b.

Large Quantity Generator (LQG): generates over 1,000 kg (2,205 pounds) of hazardous waste, or 1 kg (2.2 pounds) of acutely hazardous waste during any month within the year.

Small Quantity Generator (SQG): generates 100 to 1,000 kg (220.5 to 2,205 pounds) of hazardous waste per month.

Asbestos

Asbestos is the name of a group of silicate minerals that are heat resistant and thus were commonly used as insulation and fire retardant. Inhaling asbestos fibers has been shown to cause lung disease (asbestosis) and lung cancer (mesothelioma). Beginning in the early 1970s, a series of bans was established by the EPA and the Consumer Product Safety Commission on the use of certain asbestos-containing materials in construction. Most US manufacturers voluntarily discontinued the use of asbestos in certain building products during the 1980s. Requirements for limiting asbestos emissions from building demolition and renovation activities are specified in South Coast AQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities).

Lead

Lead was formerly used as an ingredient in paint (before 1978) and as a gasoline additive; both of these uses have been banned. Lead is listed as a reproductive toxin and a cancer-causing substance; it also impairs the development of the nervous system and blood cells in children. Those demolishing pre-1978 structures may presume the buildings contain lead-based paint (LBP) without having an inspection for LBP. Lead must be contained during demolition activities (California Health & Safety Code sections 17920.10 and 105255).

Groundwater Plume

The south basin area includes a plume originating from more than 20 industrial locations located in Santa Ana, Irvine, and Tustin. The plume is bounded by Edinger Avenue, Main Street, the I-405 Freeway, Red Hill, and Von Karman. The contaminants of concern include volatile organic compounds (VOCs) and perchlorate. The uncontrolled plume occurs predominately in the shallow aquifer at 100-foot depth which flows into a deeper principal aquifer, bringing VOC contaminants with it. So far, contaminants have arrived in two municipal drinking water wells (OCWD 2018). OCWD is embarking on a comprehensive plan to control the spread and eventually remove these chemicals that have migrated beyond their original pollution sources. Regulatory oversight is provided by the DTSC and the Regional Water Quality Control Board. These two state agencies are working closely with OCWD and some cooperative potentially responsible parties to map the occurrence

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of the contaminants, identify appropriate remedies and implement groundwater cleanup (OCWD 2020a). As a component of the remedial plan, OCWD's consultant performed an assessment of the risk to human health and the environment associated with contaminated groundwater in the south basin area (OCWD 2020b).

Airport-Related Hazards

The John Wayne Airport (JWA) is outside of the city's southeast boundary (see Figure 3-2, *Citywide Aerial*). JWA is an international, commercial service airport owned and operated by the County of Orange. The service area includes more than three million people in 34 cities and unincorporated areas of Orange County.

In 2018, there were 204,561 civil takeoffs or landings and 706 military takeoffs or landings, for a total of 205,267 takeoffs or landings (FAA 2012).⁴

The John Wayne Airport Compatibility Land Use Plan (ACLUP) was issued by the Orange County Airport Commission in 2008. Parts of the city are within Safety Compatibility Zones for JWA, and parts of the city are in areas where heights of structures are limited pursuant to FAA Part 77 Regulations protecting airspace near the airport (Santa Ana 2009).

Safety Compatibility Zones

Zone 6, the Traffic Pattern Zone for JWA, extends over the southeast corner of the city (see Figure 5.8-5, *John Wayne Airport Safety Compatibility Zones*). Zone 6 allows for all residential uses and most nonresidential uses. Outdoor stadiums and similar uses with high intensities are not allowed. Additionally, children's schools, large day-care centers, hospitals, and nursing homes are to be avoided (ALUC 2008).

Height Limits

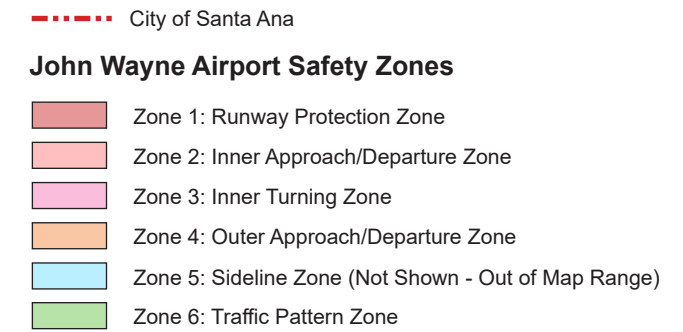
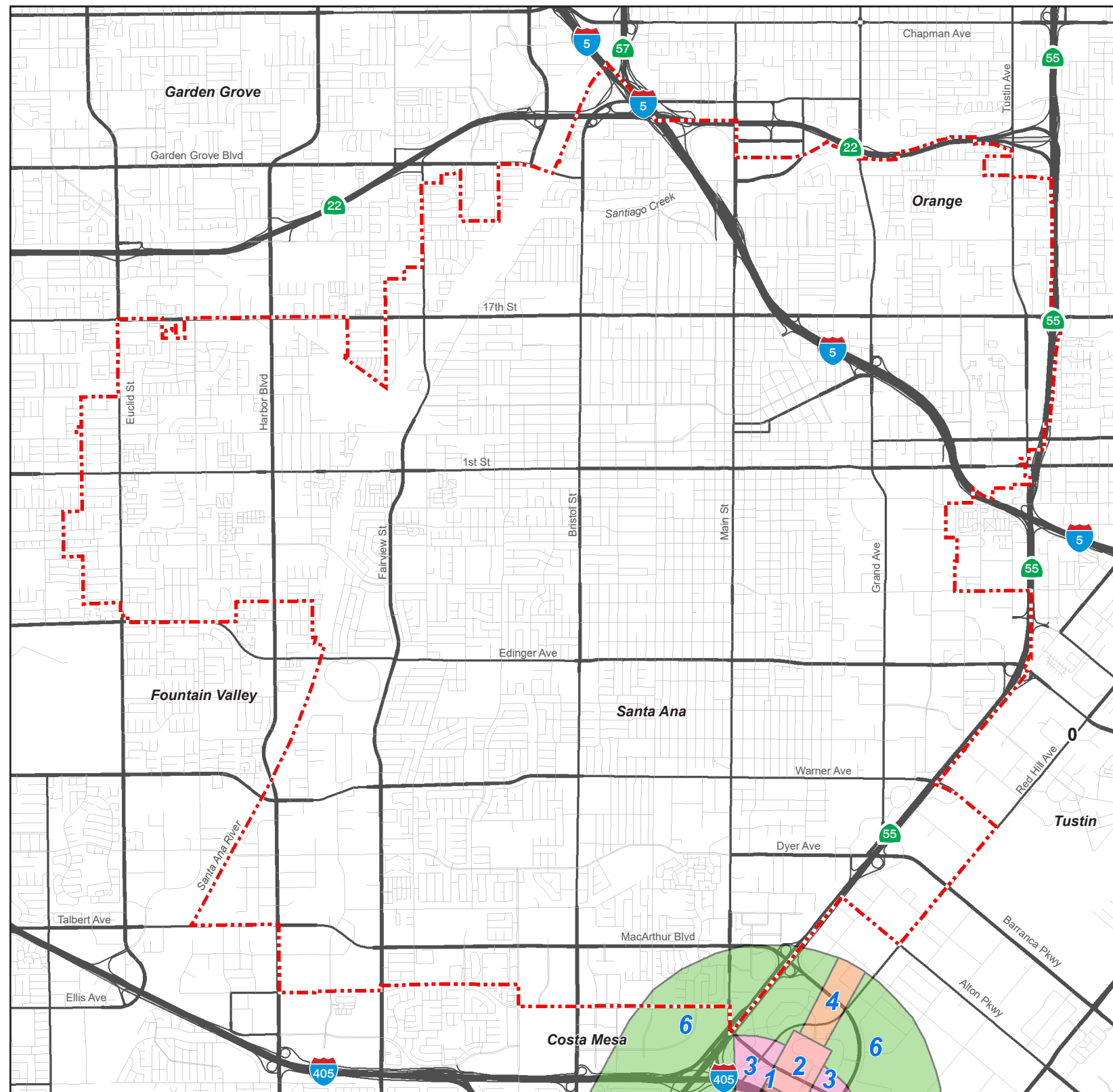
Most of the southeast parts of the city are in areas where heights of structures are regulated to avoid obstructions to aircraft under FAA Part 77 regulations (see Figure 5.8-6, *Height Restrictions per Federal Air Regulations Part 77*). For these areas, the regulation requires that notice be given to the FAA by a person proposing to construct a structure that would exceed specified heights and/or would be erected at specified sites. Notification requirements are described under Section 5.8.1.1, *Regulatory Background*.

Heliports

Heliports are only allowed outside of residential zoning districts with a Conditional Use Permit pursuant to Section 41-621 of the Santa Ana Municipal Code. In addition, any proposed heliports shall undergo review from ALUC, obtain an Airspace Analysis from the FAA as specified in Section 2.1.5 of the AELUP and confirm consistency with the AELUP prior to construction as specified in Section 4.7 of the AELUP.

⁴ "Itinerant" takeoffs or landings where the aircraft arrives from, or departs to, outside the airport area. Does not include practice flights limited to within 20 miles of the airport.

Figure 5.8-5 - John Wayne Airport Safety Compatibility Zones



Source: Orange County Airport Land Use Commission Airport Environs Land Use Plan for John Wayne Airport, 2008

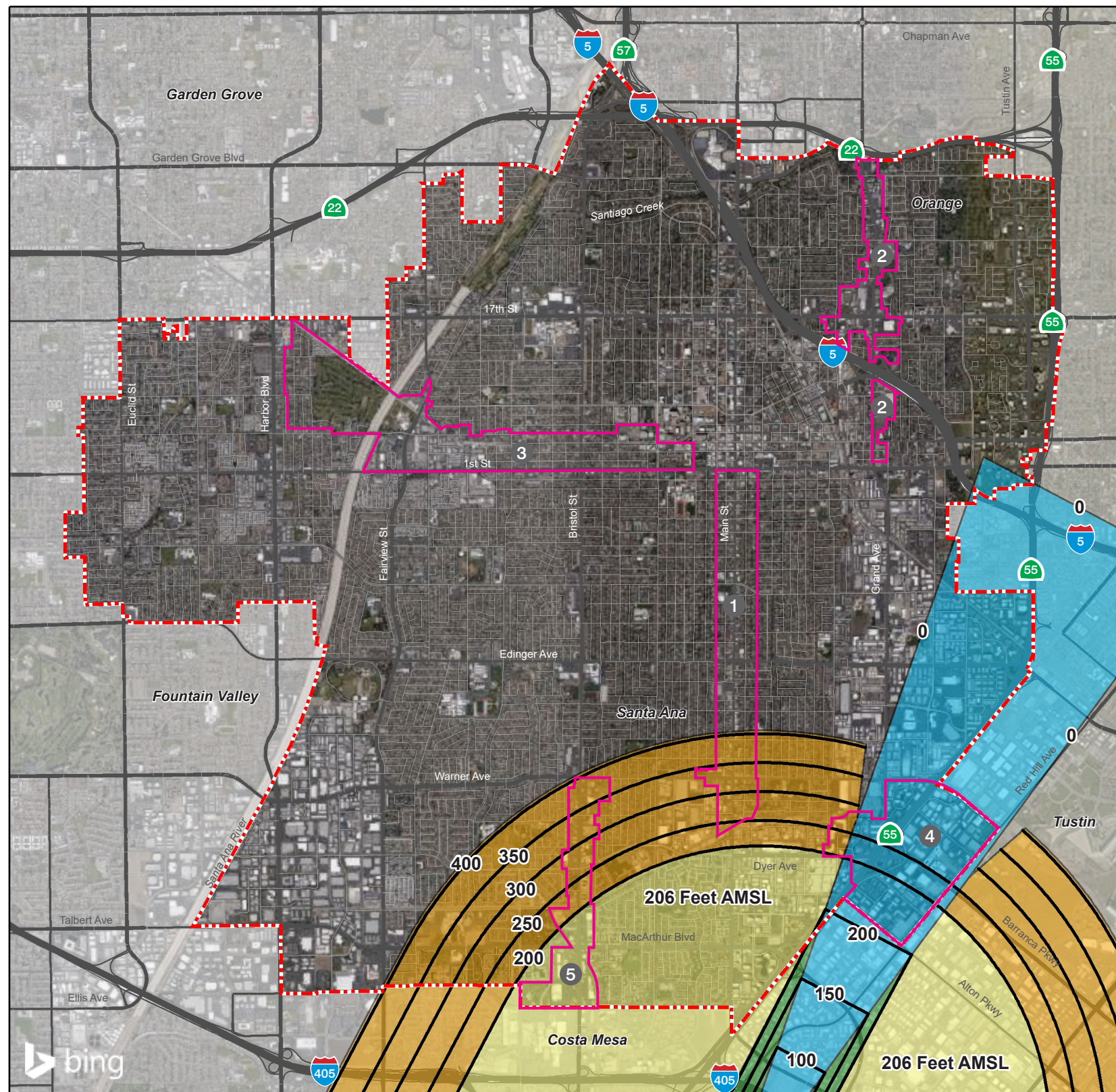


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Figure 5.8-6 - Height Restrictions per Federal Air Regulations Part 77



- - - City of Santa Ana
 - Elevation Contours in feet above mean sea level (AMSL)
- Airport Surfaces**
- Horizontal Surface - Elevation 206 Feet AMSL
 - Departure Surface - Slope 50:1 (Horizontal:Vertical)
 - Transitional Surface - Slope 7:1 (Horizontal:Vertical)
 - Conical Surface - Slope 20:1 (Horizontal:Vertical)
 - Runway - Elevation 54 Feet AMSL
- Focus Areas**
- 1 South Main Street
 - 2 Grand Ave/17th Street
 - 3 West Santa Ana Boulevard
 - 4 55 Fry/Dyer Road
 - 5 South Bristol Street

Source: Orange County Airport Land Use Commission Airport Environs Land Use Plan for John Wayne Airport, 2008



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5.8.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- H-2 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.
- H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.
- H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- H-5 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 result in a safety hazard or excessive noise for people residing or working in the project area.
- H-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- H-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

5.8.3 Regulatory Requirements and General Plan Policies

5.8.3.1 REGULATORY REQUIREMENTS

- RR HAZ-1 Hazardous materials and hazardous wastes will be transported to and/or from projects developed under the General Plan Update in compliance with any applicable state and federal requirements, including the U.S. Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation standards; and the California Occupational Safety and Health Administration standards.
- RR HAZ-2 Hazardous waste generation, transportation, treatment, storage, and disposal will be conducted in compliance with Subtitle C of the Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Part 263), including the management of nonhazardous solid wastes and underground tanks storing petroleum and other hazardous substances. The projects developed under the General Plan Update will be designed and constructed in

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accordance with the regulations of the Orange County Health Care Agency, Environmental Health Division , which serves as the designated Certified Unified Program Agency.

- RR HAZ-3 Underground storage tank (UST) repairs and/or removals will be conducted in accordance with the California UST Regulations (Title 23, Chapter 16 of the California Code of Regulations). Any unauthorized release of hazardous materials will require release reporting, initial abatement, and corrective actions that will be completed with oversight from the Regional Water Quality Control Board, Department of Toxic Substances Control, Orange County Health Care Agency Environmental Health Division , South Coast Air Quality Management District, and/or other regulatory agencies, as necessary. Use of existing USTs will also have to be conducted (i.e., used, maintained and monitored) in accordance with the California UST Regulations (Title 23, Chapter 16 of the California Code of Regulations).
- RR HAZ-4 Demolition activities that have the potential to expose construction workers and/or the public to asbestos-containing materials or lead-based paint will be conducted in accordance with applicable regulations, including, but not limited to:
- South Coast Air Quality Management District’s Rule 1403
 - California Health and Safety Code (Section 39650 et seq.)
 - California Code of Regulations (Title 8, Section 1529)
 - California Occupational Safety and Health Administration regulations (California Code of Regulations, Title 8, Section 1529 [Asbestos] and Section 1532.1 [Lead])
 - Code of Federal Regulations (Title 40, Part 61 [asbestos], Title 40, Part 763 [asbestos], and Title 29, Part 1926 [asbestos and lead])
- RR HAZ-5 The removal of hazardous materials, such as polychlorinated biphenyls (PCBs), mercury-containing light ballast, and mold, will be completed in accordance with applicable regulations pursuant to 40 CFR 761 (PCBs), 40 CFR 273 (mercury-containing light ballast), and 29 CFR 1926 (molds) by workers with the hazardous waste operations and emergency response (HAZWOPER) training, as outlined in 29 CFR 1910.120 and 8 CCR 5192.
- RR HAZ-6 New construction, excavations, and/or new utility lines within 10 feet or crossing existing high-pressure pipelines, natural gas/petroleum pipelines, or electrical lines greater than 60,000 volts will be designed and constructed in accordance with the California Code of Regulations (Title 8, Section 1541).
- RR HAZ-7 Development will be designed and constructed in accordance with the airport environs land use plan for John Wayne Airport. Building height restrictions, as specified in the airport environs land use plan, would apply in the city.

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5.8.3.2 GENERAL PLAN UPDATE POLICIES AND IMPLEMENTATION ACTIONS

The following are relevant policies and implementation actions of the Santa Ana General Plan update that may reduce hazard impacts. Policy and implementation action revisions since the original Draft PEIR are shown in track changes (see Section 2.1 for color code). Implementation actions were not in the original Draft PEIR and have been added to more fully describe GPU components that will mitigate impacts. However, only new implementation actions since the Draft PEIR public circulation are in color (changes after August 3, 2020). ~~The comprehensive, track changes listing of Policies and Implementation Actions in Volume III, Appendix B-a show the changes since October 2020, when the GPU was presented to the Planning Commission. With the changes as marked, both versions represent the most up-to-date GPU Policies and Implementation Actions.~~

Community Element

- **Policy 3.2 Healthy Neighborhoods.** Continue to support the creation of healthy neighborhoods by addressing public safety, ~~mitigating land use conflicts,~~ **hazardous soil contamination,** incompatible uses, and maintaining building code standards.
- **Implementation Action 1.3 Collaboration.** Develop intentional, strategic partnerships with public, private, and nonprofit entities to improve health outcomes by leveraging capacity, resources, and programs around mutually beneficial initiatives that promote health, equity, and sustainability in neighborhoods within environmental justice area boundaries. Develop a comprehensive partnership policy providing guidelines that can be used throughout the City organization.
- **Implementation Action 3.3 Health Metrics.** Engage with the Orange County Health Care Agency and other stakeholders to monitor key health indicators to measure the success of the outcome of General Plan policies and the implementation plan, including reduction in incidence in asthma and low birth weight of infants.
- **Implementation Action 3.5 Environmental Education.** Encourage all education institutions in Santa Ana to include curriculum regarding environmental justice and local efforts to promote clean business operations, environmental quality, and the health in our community.

Conservation Element

- **Policy 1.5 Sensitive Receptor Decisions.** Consider potential impacts of stationary and non-stationary emission sources on existing and proposed sensitive uses and opportunities to minimize health and safety risks. **Develop and adopt new regulations on the siting of facilities that might significantly increase pollution near sensitive receptors within environmental justice area boundaries.**
- **Implementation Action 1.5 Agency Permits.** Monitor the South Coast Air Quality Management District permitting and inspection process and the Orange County Health Care Agency to identify businesses in Santa Ana with potential hazardous materials or by-products, with a special focus on environmental justice communities. Serve as a liaison for residents to identify potential emission violations. Share information and data with the community on the City's Environmental Quality web page.

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Economic Prosperity Element

- **Policy 2.3 Complementary Businesses.** Encourage the development of mutually beneficial and complementary business clusters within the community.
- **Policy 2.5 Sufficient Industrial Land.** Ensure sufficient availability of industrial zoned properties and businesses that provide employment opportunities for the City's resident population.

Land Use Element

- ~~Policy 1.5 Sensitive Receptor Decisions.~~ Consider potential impacts of stationary and non-stationary emission sources on existing and proposed sensitive uses and opportunities to minimize health and safety risks.
- **Policy 3.7 Attractive Environment.** Promote a clean, safe, and creative environment for Santa Ana's residents, workers, and visitors.
- **Policy 3.8 Sensitive Receptors.** Avoid the development of industry and sensitive receptors in close proximity to land uses each other that could pose a hazard to human health and safety, due to the quantity, concentration, or physical or chemical characteristics of the hazardous materials that they utilize-utilized, or the hazardous waste that they an operation may generate or emit.
- **Policy 3.9 Improving Health-Noxious, Hazardous, Dangerous, and Polluting Uses.** Improve the health of residents, students, and workers by limiting the impacts of construction activities and by discontinuing the operation of noxious, hazardous, dangerous, and polluting uses that are in close proximity to sensitive receptors, with priority given to discontinuing such uses within environmental justice areas boundaries.
- **Implementation Action 3.3 Healthy Lifestyles.** Collaborate with residents and industry stakeholders to create a program to incentivize and amortize the removal of existing heavy industrial uses adjacent to sensitive uses.
- **Implementation Action 3.6 Lead Paint Abatement.** Coordinate with County of Orange Health Care Agency and community organizations to strengthen local programs and initiatives to eliminate lead-based paint hazards, with priority given to residential buildings within environmental justice area boundaries.
- **Implementation Action 3.17 Training for Safe Practice.** Pursue the EPA Renovate Right Program to train local residential contractors for certification as lead renovators to promote safe work practices and prevent lead contamination.
- **Implementation Action 3.18 Renovations and Lead Prevention.** Evaluate the feasibility of requiring contractor training and/or certification for safe work practices to conduct residential renovations for pre-1978 structures that may contain existing lead paint.

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- **Implementation Action 3.19 Promote Health.** Partner with local organizations (e.g., OC Health Care Agency, Latino Health Access, Santa Ana Unified School District, and the Coalition of Community Health Centers) to increase blood lead testing, outreach, education, and referral services through a ‘promotora’ or community peer outreach model that addresses the root causes of elevated blood lead levels impacting Santa Ana residents, with special focus in environmental justice communities and for children living in pre-1978 housing.
- **Implementation Action 3.20 Safe Housing.** Require all residential rehabilitation projects that use local, or HUD federal funds to comply with the Lead Safe Housing Rule, to remove lead paint hazards, depending on the nature of work and the dollar amount of federal investment in the property.
- **Implementation Action 3.21 Prevention Education.** Collaborate with local organizations such as Orange County Health Care Agency and State Environmental Protection Agency and identify funds to create a Santa Ana Prevent Lead Poisoning Education Program, with special focus on disadvantaged communities and pre-1978 housing stock.
- **Implementation Action 3.22 Public Health Outcomes.** Support the Orange County Health Care Agency in their role in investigating public complaints regarding lead hazards, through enforcement of local housing standards to assure healthy outcomes.
- **Implementation Action 3.24 Public Health.** Partner with Orange County Health Care Agency and community serving organizations to evaluate best practices and benefits of preparing a Public Health Plan to address environmental hazards in Santa Ana, with special focus in environmental justice communities. Conduct public meetings to gather information and present preliminary findings.
- **Implementation Action 3.26 Health Conditions.** Work with Orange County Health Care Agency and local stakeholders including Orange County Environmental Justice and UC Irvine Public Health to identify baseline conditions for lead contamination in Santa Ana, monitor indicators of lead contamination, and measure positive outcomes. Collaborate with these organizations to secure grant funds for soil testing and remediation for residential properties in proximity to sites identified with high soil lead levels, with a focus on Environmental Justice census tracts.
- **Implementation Action 3.27 Groundwater Practice.** Coordinate with the State Department of Toxic Substances Control (DTSC) to monitor the Santa Ana Southeast Groundwater Clean Up Project and identify measurable progress to remediate groundwater contamination. Share information with the community on the City’s Environmental Quality web page.
- **Implementation Action 3.29 Development Site History.** Update the City’s Development Review application process to require developers to provide information regarding prior use of the site and history of hazardous materials on the property, to identify potential for site contamination from hazardous materials or soil lead contamination to be remediated.

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Noise Element

- **Policy 3.1 Residential Development.** Residential development within the John Wayne Airport (JWA) 65 dB(A) CNEL Noise Contour or greater is not supported.
- **Policy 3.2 Flight Paths.** Advocate that future flight path selection be directed away from existing noise sensitive land uses.

Public Services Element

- **Policy 2.1 Public Safety Agencies.** Collaborate with the Police Department and the Fire Authority to promote greater public safety ~~the implementation of crime prevention~~ through environmental design implementing Crime Prevention through Environmental Design (CPTED) principles for all development projects.
- **Policy 2.2 Code Compliance.** Require all development to comply with the provisions of the most recently adopted fire and building codes and maintain an ongoing fire inspection program to reduce fire hazards.
- **Policy 2.3 Crime Prevention.** Coordinate, partner, and build relationships with community members and stakeholders to develop and implement crime prevention strategies through restorative practices that focus on rehabilitation, community service, and public safety.
- **Policy 2.4 Community Partnerships.** Provide alternative methods to improve police services that support community partnerships, build public trust, and proactively address public safety issues.
- **Policy 2.5 Safety Programs.** Promote early childhood education and prevention programs that improve public safety and maintain ongoing community education opportunities.
- **Policy 2.6 School Safety.** Collaborate with local schools to establish and implement comprehensive and coordinated services that enhance the security and safety of students, educators, and administrators on and off campus.
- **Policy 2.7 Staffing Levels.** Maintain staffing levels for sworn peace officers, fire fighters, emergency medical responders, code enforcement, and civilian support staff to provide quality services and maintain an optimal response time citywide.
- **Policy 2.8 Efficiency Standards.** Ensure that equipment, facilities, technology, and training for emergency responders are updated and maintained to meet modern standards of safety, dependability, and efficiency.
- **Policy 2.9 Quality Employees.** Enhance public safety efforts by actively seeking a diverse and talented pool of public safety candidates who possess the values and skills consistent with those of the community.

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Open Space Element

- **Policy 2.38 Hazardous Materials.** Reduce or eliminate, where feasible, the use of pesticides and herbicides that negatively impact human health at park facilities and publicly accessible open spaces.

Safety Element

- **Policy 2.1 Regional Collaboration.** Consult and collaborate with federal, state, and regional agencies to identify and regulate the disposal and storage of hazardous materials, ~~and~~ prevent the illegal transportation and disposal of hazardous waste., ~~facilitate the cleanup of contaminated sites, and facilitate the cleanup of contaminated sites.~~
- **Policy 2.2 Hazardous Waste Generators.** Collaborate with appropriate agencies to identify and inventory all users and handlers of hazardous materials to proactively mitigate potential impacts.
- **Policy 2.3 Transportation and Storage.** Coordinate with the County of Orange, the California Department of Transportation, and other relevant parties to enforce state and local laws regulating the storage and transport of hazardous materials within the City of Santa Ana, and limit truck routes through the City to arterial streets away from natural habitats and sensitive land uses.
- **Policy 2.4 Planning and Remediation.** Determine the presence of hazardous materials and/or waste contamination prior to approval of new uses and require that appropriate measures be taken to protect the health and safety of site users and the community.
- **Policy 2.5 Education and Best Practices.** ~~Improve~~~~Promote~~ public awareness of best practices for and participation in household hazardous waste management and disposal.
- **Policy 2.6 Existing Sensitive Uses.** Partner and collaborate with property owners, businesses, and community groups to develop strategies to protect and minimize risks from existing hazardous material sites to existing nearby sensitive uses, ~~with priority given to discontinuing such uses within environmental justice area boundaries.~~
- **Policy 4.1 Structures Above 200 Feet.** For development projects that include structures higher than 200 feet above existing grade, the City shall inform the Airport Land Use Commission (ALUC) and submit materials to the ALUC for review. Proposed projects that would exceed a height of 200 feet above existing grade shall be required to file Form 7460-1 with the Federal Aviation Administration.
- **Policy 4.2 Federal Aviation Regulation Part 77.** Do not approve buildings and structures that would penetrate Federal Aviation Regulation (FAR) Part 77 Imaginary Obstruction Surfaces unless found consistent by the Airport Land Use Commission (ALUC). Additionally, in accordance with FAR Part 77, required applicants proposing buildings or structures that penetrate the 100:1 Notification Surface to file a Form 7460-1 Notice of Proposed Construction or Alteration with FAA and provide a copy of the FAA determination to the City and the ALUC for Orange County.

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- **Policy 4.3 Light, Glare, and Other Interference.** Minimize hazards to aeronautical operations by ensuring land uses do not emit excessive glare, light, steam, smoke, dust, or electronic interference in compliance with FAA regulations and the John Wayne Airport Environs Land Use Plan.
- **Policy 4.4 Heliport/Helistop Approval and Requirements.** Any proposals for heliports/helipads within the City shall be submitted through the City to the Airport Land Use Commission (ALUC) for a consistency determination. Approve the development of a heliport or helistop only if it complies with the Airport Environs Land Use Plan for heliports. Ensure that each applicant seeking a conditional use permit or similar approval for the construction or operation of a heliport or helistop complies fully with the state permit procedure provided by law and with all conditions of approval imposed or recommended by the FAA, by Orange County Airport Land Use Commission, and by Caltrans/Division of Aeronautics. This requirement shall be in addition to all other City development requirements.
- **Policy 4.5 Referral to ALUC.** Prior to the amendment of the City's general plan or a specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the Airport Land Use Commission (ALUC), and pursuant to Public Utilities Code Section 21676, the City shall first refer the proposed action to the ALUC.
- **Policy 4.6 Deed Disclosure Notice.** Provide notice of airport in the vicinity where residential development is being proposed within the 60 dBA CNEL noise contours for the John Wayne Airport.
- **Implementation Action 2.4 Lead Contamination.** Work with local with community organizations and regional partners, such as Orange County Environmental Justice, Orange County Health Care Agency and University of California at Irvine Public Health, to understand the prevalence, sources, and implications of lead contamination of soil across Santa Ana. Collaborate with environmental justice stakeholders in proposing solutions to remove hazardous lead-contaminated soils in the city and with benchmarks to measure and track effectiveness of proposed programs.

5.8.4 Environmental Impacts

The following impact analysis addresses thresholds of significance for potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.8.1: Project construction and operations would involve the transport, use, and/or disposal of hazardous materials. [Thresholds H-1, H-2, and H-3]

Existing and Proposed Industrial Facilities

As mentioned in Section 5.8.1.2, residents within the entire city of Santa Ana, like many cities in Los Angeles and Orange County, are exposed to elevated levels of toxic releases from industrial facilities that make or use toxic chemicals. Additionally, hazardous waste exposure is significant in nearly all environmental justice communities in Santa Ana, particularly EJ neighborhoods in the eastern industrial corridor.

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The GPU does not introduce any general or heavy industrial uses anywhere in the city in comparison to existing conditions. The increase in the proposed industrial designated properties is all within the focus areas and is all designated Industrial Flex. The Industrial Flex land use designation is being introduced in areas already designated by the current General Plan for industrial or commercial land uses as a means of providing a buffer between existing industrial areas and existing residential areas (i.e., transition use). The intent of the Industrial Flex zone is to allow for cleaner industrial uses, including office-industrial flex space, small-scale clean manufacturing, research and development, artist galleries, craft maker spaces and live-work spaces. Live-work units are permitted within the Industrial Flex 1.5 land use designation and not permitted within the Industrial Flex 3.0 designation. This proposed zone would not expand industrial areas in the city and would reduce the exposure to hazardous materials and wastes for existing areas in the city that are adjacent to industrial areas. New residential and institutional uses in EJ communities near industrial uses would be minimal.

The West Santa Ana Boulevard Focus Area is primarily within EJ community boundaries. The GPU introduces new residential uses, including live-work spaces in the Industrial Flex 1.5 designation, as shown in Figure 5.2-7, *EJ Communities in the West Santa Ana Boulevard Focus Area*. There are no proposed heavy industrial uses surrounding these new sensitive receptors. The surrounding areas are also designated residential, institutional, and commercial uses in the current General Plan (see Figure 3-6, *Current General Plan Land Use Plan*). No new heavy manufacturing uses are introduced in this focus area pursuant to GPU development. The portion of the Grand Avenue/17th Street Focus Area south of I-5 encompasses an EJ community. The GPU redesignates this entire area as District Center and Urban Neighborhood uses (see Figure 5.2-9, *EJ Communities in the Grand Avenue/17th Street Focus Area*). There are no existing industrial land uses designated in this area (see Figure 3-4, *Existing Land Use*). The surrounding areas are also designated residential, institutional, and commercial uses in the current General Plan (see Figure 3-6, *Current General Plan Land Use Plan*). Therefore, new sensitive receptors within the EJ communities in these two focus areas would not be exposed to new impacts associated with hazardous materials and wastes. The South Bristol Street Focus Area does not include any EJ communities.

Properties in the EJ communities in the western part of the proposed 55 Freeway/Dyer Road Focus Area would be designated Industrial Flex 3.0 and Commercial land uses (see Figure 5.2-8, *EJ Communities in the 55 Freeway/Dyer Road Focus Area*), which would not increase the hazardous materials and hazardous waste burden to EJ communities within and adjacent to the focus area. Heavy manufacturing would not be allowed in this focus area.

The proposed South Main Street Focus Area redesignates properties fronting Main Street in the Pacific Park, Madison Park, Cedar Evergreen, Heninger Park, Memorial Park, and Delhi neighborhoods as Urban Neighborhoods, which provides commercial uses, low- and medium-density housing, or a combination of both in a vertically mixed-use format. These neighborhoods are designated EJ communities. New sensitive receptors would be surrounded by proposed residential and institutional uses (see Figure 5.2-6, *EJ Communities in the South Main Street Focus Area*). The surrounding areas are also designated residential, institutional, and commercial uses in the current General Plan (see Figure 3.6, *Current General Plan Land Use Plan*). However, the area south of Warner Avenue, which encompasses an EJ community, would introduce live-work spaces as part of the Industrial Flex 1.5 designation. The GPU would also introduce new institutional uses north of Warner Avenue (see Figure 5.2-6, *EJ Communities in the South Main Street Focus Area*). These new sensitive receptors would be near existing general industrial uses south of Warner Avenue (see Figure 3-4, *Existing Land Use*).

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The GPU would introduce new residential and institutional uses near existing industrial uses in EJ communities. However, the use, storage, transport, and disposal of hazardous materials would be governed by existing regulations of several agencies, including the EPA, US Department of Transportation, California Division of Occupational Safety and Health, and the OCHCA. Furthermore, the GPU has policies and implementation actions that specifically target existing land use compatibility issues and aim to prevent any future impacts to new sensitive receptors within EJ communities.

Safety Element Policies 2.1 through 2.3 promote coordination with federal, state, and regional agencies to identify, inventory, and regulate the disposal and storage of hazardous materials and hazardous wastes to prevent illegal transportation and disposal and to proactively mitigate potential impacts. These policies also limit truck routes through the city to arterial streets away from sensitive land uses. Land Use Element Policies 3.9 and 3.8 aim to discontinue the operation of polluting uses that are near sensitive receptors, with priority given to environmental justice area boundaries. Furthermore, Implementation Action 3.3 of the same element promotes collaboration with residents and industry stakeholders to create a program to incentivize the removal of existing heavy industrial uses adjacent to sensitive uses. Policy 1.5 of the Conservation Element addresses potential impacts of stationary emission sources on existing and proposed sensitive uses and promotes mitigating or applying special considerations and regulations on the siting of facilities that might significantly increase pollution near sensitive receptors within environmental justice boundaries. Implementation Action 1.5 states the City’s commitment to monitor the South Coast Air Quality Management District permitting and inspection process and the Orange County Health Care Agency to identify businesses with potential hazardous materials or by-products, with a special focus on environmental justice communities. The city also commits to serve as a liaison for residents to identify potential emission violations. Therefore, impacts associated with existing and proposed industrial facilities would be less than significant.

Existing Hazardous Materials Sites

As shown in Table 5.8-5, there are 73 open leaking UST or cleanup site cases in the city and sphere of influence.

Table 5.8-5 Hazardous Materials Sites in the Plan Area: Open Cases

Site Name	Address	Type Of Site	Cleanup Status
Plan Area			
1300 Normandy Partners	1300 E. Normandy Pl.	Cleanup Program Site	Open – Inactive
7-Eleven Store #18167	1020 S. Bristol St.	LUST	Open – Site Assessment
Aeromil Engineering Co., Inc.	2344 Pullman St.	LUST	Open – Remediation
Aluminum Precision Products	2621 S. Susan St.	Cleanup Program Site	Open – Inactive
AMR Combs Fuel Farm	19301 Campus Dr.	LUST	Open – Remediation
Archies Texaco	4502 Westminster Ave.	LUST	Open – Site Assessment
ARCO #1047	2646 W. 1st St.	LUST	Open - Remediation
ARCO #3085	3361 S. Bristol St.	LUST	Open - Remediation
ARCO #5147	2245 S. Main St.	LUST	Open – Eligible for Closure
ARCO #6071	3414 S. Main St.	LUST	Open - Remediation
Barlen Enterprises Industrial Park	1410 E. St. Gertrude Pl.	Cleanup Program Site	Open – Assessment & Interim Remedial Action
Behr Process Corporation	3001 S. Yale St.	Cleanup Program Site	Open - Remediation

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Table 5.8-5 Hazardous Materials Sites in the Plan Area: Open Cases

Site Name	Address	Type Of Site	Cleanup Status
Bell Industries	1831 Ritchey St.	Cleanup Program Site	Open - Remediation
BFM Energy Products Corp.	2040 E. Dyer Rd.	Cleanup Program Site	Open - Remediation
Bristol Fiberlite Industries	401 E. Goetz Ave.	LUST	Open – Eligible for Closure
Cabrillo Park Shopping Center – Aztec Cleaners	1730 E. 17 th St.	Voluntary Cleanup Program	Open
Cherry Aerospace	1224 E. Warner Ave.	Cleanup Program Site	Open - Remediation
Chevron #9-1825	2261 N. Fairview St.	LUST	Open – Verification Monitoring
Circuit One	2103 S. Grand Ave.	Cleanup Program Site	Open – Remediation
CTC Global Facility	3901 S. Main St.	Cleanup Program Site	Open – Site Assessment
Diceon Electronics (Former)/Elexsys International Corp.	2215 S. Standard Ave.	Cleanup Program Site	Open – Site Assessment
Dyer Business Park	3107 Kilson Dr.	Cleanup Program Site	Open – Site Assessment
E-Z Serve #100841	2409 W. Edinger Ave.	LUST	Open – Verification Monitoring
Eco Gasoline	1131 S. Main St.	LUST	Open - Remediation
El Modena Flood Channel Investigation	Esplanade Ave. & Fairhaven Ave.	Cleanup Program Site	Open – Site Assessment
Embee Plating	2144 S. Hathaway St.	Cleanup Program Site	Open - Remediation
Empire Auto	110 E. Dyer Rd.	Voluntary Cleanup Program	Open
Former Alcoa Composites/Tre Astech Facility	3030 S. Red Hill Ave.	Cleanup Program Site	Open - Remediation
Former Industrial Property	201 E. Stevens Ave.	Cleanup Program Site	Open – Site Assessment
Former Los Amigos Dry Cleaner	1312 W. Edinger Ave.	Cleanup Program Site	Open – Verification Monitoring
Former Unocal 76 SS #5247 (AKA Crevier BMW)	1500 Auto Mall Rd. (Formerly 2031 E. Edinger)	LUST	Open – Site Assessment
G & M Oil #24	3301 S. Bristol St.	LUST	Open – Verification Monitoring
Gallade Chemical Inc	1230 E. St. Gertrude Pl.	Cleanup Program Site	Open - Remediation
GE Plastics	1831 E. Carnegie Ave.	Cleanup Program Site	Open - Remediation
Guadalajara Tires	2501 Westminster	LUST	Open - Remediation
Gulf Station (Chevron #35-2689)	1606 S. Standard Ave.	LUST	Open – Assessment & Interim Remedial Action
Halladay Properties	3035 Halladay	Cleanup Program Site	Open – Site Assessment
Holchem Service Chemical Co.	1341 Maywood Ave., East	Cleanup Program Site	Open - Remediation
Humble Oil Station 7-8869	1440 Broadway	LUST	Open – Site Assessment
Isaac Main Plaza/Metro CW	1801 S. Main St.	LUST	Open – Verification Monitoring
Isaac, Inc. (Village Pnt & Bdy)	1734 W. 1st St.	LUST	Open – Eligible for Closure
ITT Cannon	666 E. Dyer Rd.	Cleanup Program Site	Open - Remediation
JMA Trust	3320 S. Yale St.	Cleanup Program Site	Open – Site Assessment
Key Cleaners	3033 S. Bristol St.	Cleanup Program Site	Open – Site Assessment
L&N Costume Services	1602 E. Edinger Ave.	Cleanup Program Site	Open – Site Assessment
Llyod Pest Control Upgradient VOC Plume	566 E. Dyer Rd.	Cleanup Program Site	Open - Inactive
Martin Aviation (Fuel Farm)	19331 S. Airport Way	LUST	Open - Remediation
Mobil #18-HCN	1351 E. Dyer Rd.	LUST	Open – Eligible for Closure

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Table 5.8-5 Hazardous Materials Sites in the Plan Area: Open Cases

Site Name	Address	Type Of Site	Cleanup Status
Newport Hydraulics	1716 S. Santa Fe St.	LUST	Open - Inactive
OCWD – South Basin	Hotel Terrace Dr.	Project	Open – Site Assessment
Orange County Fire Station #33	18992 Ike Jones Rd.	Cleanup Program Site	Open – Site Assessment
Orange County South Basin		Complex Site Cleanup Program Facility	
Orco Tools and Equipment	2100 Ritchey St.	LUST	Open - Remediation
SA Recycling	2002 W. 5th St.	Cleanup Program Site	Open – Eligible for Closure
Safety-Kleen	2120 S Yale St.	LUST	Open – Site Assessment
Santa Ana Tower F.A.A.	18990 Ike Jones Rd.	Cleanup Program Site	Open – Site Assessment
Shell #510 Former	510 N. Bristol St.	LUST	Open – Site Assessment
Shell Station #1202 (Former)	1202 E. Edinger Ave.	LUST	Open - Remediation
South Coast Auction	2202 S. Main St.	LUST	Open – Verification Monitoring
South Coast Business Center	3400-3500 Warner Ave.	Cleanup Program Site	Open - Remediation
SPS Technologies	2701 S. Harbor	Cleanup Program Site	Open - Remediation
Thrifty Oil #008	704 N. Bristol St.	LUST	Open - Remediation
Thrifty Oil #015	2016 W. 17th St.	LUST	Open - Remediation
Thrifty Oil #150	1539 S. Standard Ave.	LUST	Open - Remediation
Thrifty Oil #376	801 N. Bristol St.	LUST	Open – Eligible for Closure
Troy Computer	2322 Pullman St.	Cleanup Program Site	Open - Site Assessment
Ultramar, Inc. Station #750	1501 S. Broadway	LUST	Open - Site Assessment
Universal Circuits	1720-1800 Newport Circle, East	Cleanup Program Site	Open - Site Assessment
Unocal #5356	1913 W. Edinger Ave.	LUST	Open – Verification Monitoring
Unocal #5422	1502 E. Edinger Ave.	LUST	Open - Remediation
Unocal #7470	114 S. Bristol St.	LUST	Open - Remediation
US Divers	3323 W. Warner Ave.	Cleanup Program Site	Open - Inactive
Waste Oil UST	3323 W. Warner Ave.	Cleanup Program Site	Open - Inactive
Wells Fargo Bank	2301 S. Main St.	LUST	Open – Site Assessment
West Coast Plating, Former	2525 S. Birch St.	Cleanup Program Site	Open – Inactive

Source: SWRCB 2020.

Any development, redevelopment, or reuse on or immediately adjacent to any of these sites would require environmental site assessment by a qualified environmental professional to ensure that the relevant projects would not disturb hazardous materials on any of the hazardous materials sites or plumes of hazardous materials diffusing from one of the hazardous materials sites, and that any proposed development, redevelopment, or reuse would not create a substantial hazard to the public or the environment.

Additionally, new stationary industrial sources near EJ communities would not be introduced due to the GPU, and new residential and institutional uses situated close to industrial facilities would be minimal. The environmental justice requirements of SB 1000—to update public policies for disadvantaged communities in order to reduce unique or compounded health risks, promote civil engagement in the public decision-making

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process, and prioritize improvements and programs—would also minimize any potential hazard. The Community Air Protection Program (created by the California Air Resources Board in response to AB 617) would reduce the exposure of the communities most impacted by air pollution. AB 617 statewide strategy include: (1) assessing and identification of communities with high cumulative exposure burdens, prioritization disadvantaged communities and sensitive receptor locations, based on modeling information, existing health data; (2) methodology for assessing and identifying the relative contribution of sources or categories of sources to air pollution in the community; (3) updating and implementing risk reduction audit and emissions reduction plans at least once every 5 years; and (4) assessment of measures available to reduce emissions from contributing sources or categories of sources.

Existing Lead-Contaminated Soil

As noted in Section 5.8.1.2, elevated lead concentrations in soils were found in EJ communities in Santa Ana, particularly in the cluster of census tracts in the central part of the city, just south of the I-5 freeway. Potential sources of soil lead contamination in Santa Ana include the historical use of leaded gasoline, historical and present-day point-source emissions from industrial facilities, and lead-based paint in older buildings (Masri 2020).

New sensitive receptors, introduced pursuant to the GPU, that are within EJ communities and near existing industrial uses include:

- Proposed institutional uses north of Warner Avenue in the South Main Street Focus Area.
- Proposed live-work spaces in the Industrial Flex 1.5 designation, in the area south of Warner Avenue in the South Main Street Focus Area.

Additionally, the GPU would introduce opportunities for live-work residential uses in the Industrial Flex 1.5 land use designation in the EJ community south of the I-5 freeway in the Grand Avenue/17th Street Focus Area (see Figure 5.2-9, *EJ Communities in the Grand Avenue/17th Street Focus Area*).

However, the GPU incorporates community health and related environmental hazards into the City's long-term planning and includes a comprehensive approach to be responsive to the community. The topic of lead contamination is one pollution factor the City considered in its development of the GPU policies and implementation actions. These policies and implementation actions include:

- Community Element Policy 3.2, and Implementation Actions 1.3, 3.3, and 3.5
- Conservation Element Policy 1.5, and Implementation Action 1.5
- Safety Element Policy 2.6 and Implementation Action 2.4. This implementation action specifically addresses lead contamination and aims to understand the prevalence, sources, and implications of lead contamination of soil across Santa Ana in addition to proposing solutions in collaboration with environmental justice stakeholders.

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- Land Use Element Policies 3.8 and 3.9, and Implementation Actions 3.3, 3.19, 3.21, 3.22, 3.24, 3.26, 3.27, and 3.29. Implementation Action 3.19 addresses blood lead levels with special focus in environmental justice communities and for children living in pre-1978 housing, and Implementation Action 3.21 aims to identify funds to create a Santa Ana Prevent Lead Poisoning Education Program. Additionally, Implementation Action 3.22 promotes the investigation of public complaints regarding lead hazards and the enforcement of local housing standards to ensure healthy outcomes. Implementation Action 3.26 aims to identify baseline conditions for lead contamination in Santa Ana, monitor indicators of lead contamination, and measure positive outcomes. Implementation Action 3.29 involves updating the City's Development Review application process to require developers to provide information regarding prior use of the site and history of hazardous materials on the property, to identify lead-contaminated soils to be remediated.

These GPU policies and implementation actions are intended to remedy existing lead-contaminated soil impacts on EJ communities and prevent any future impacts associated with new sensitive receptors introduced pursuant to the implementation of the GPU. Therefore, impacts from existing lead-contaminated soils is less than significant.

Existing Asbestos-Containing Materials and Lead-Based Paint

Many buildings in the plan area predate 1978 and thus may contain ACM and LBP. The history of Santa Ana is briefly described in Section 5.5, *Cultural Resources*. Demolition and removal of existing buildings could pose hazards to people and the environment through disturbance and/or release of ACM and LBP. Compliance with RR HAZ-4 and Implementation Action 3.6, 3.17, 3.18, and 3.20 (Land Use Element) would reduce the impact of existing ACM and LBP to less than significant.

Routine Use, Storage, Transport, and Disposal of Hazardous Materials

Construction

Construction in accordance with the General Plan Update will involve demolition, grading, and construction of new buildings. Potentially hazardous materials used during construction include substances such as paints, sealants, solvents, adhesives, cleaners, and diesel fuel. There is potential for these materials to spill or to create hazardous conditions. However, the materials used will not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities will also be short term or one time in nature. Project construction workers will be trained in safe handling and hazardous materials use.

To prevent hazardous conditions, existing local, state, and federal laws—such as those listed under Section 5.8.1.1, *Regulatory Background*—will be enforced at the construction sites. For example, compliance with existing regulations would ensure that construction workers and the general public are not exposed to any risks related to hazardous materials during demolition and construction. Cal/OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans. For example, all spills or leakage of petroleum products during construction activities must be immediately contained, the hazardous material

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identified, and the material remediated in compliance with state and local regulations for that contaminant. All contaminated waste must be collected and disposed of at an appropriately licensed disposal or treatment facility.

Furthermore, strict adherence to all emergency response plan requirements set by the Orange County Fire Authority would be required throughout the duration of project construction.

Operation

Operation of projects developed pursuant to the General Plan Update would involve hazardous materials used in industrial and commercial land uses as well as hazardous materials used for cleaning and maintenance purposes in almost all developed land uses: cleaners, solvents, paints, pesticides, and fertilizers. The amounts of hazardous materials used would vary by land use type: amounts would be small for residential, school, institutional, and many office uses. Amounts would be larger for industrial uses; businesses selling hazardous materials, such as gasoline stations; and service businesses using hazardous materials in their operations, such as construction contractors, painters, cleaners, and printers.

The plan area has 112 small quantity generators of hazardous wastes in the plan area, 2 of which are conditionally exempt, and 18 large quantity generators of hazardous wastes (see Table 5.8-4, above).

The General Plan Update would designate 2,411 acres for industrial uses, a net increase of 683.1 acres over existing industrial uses (1,727.9 acres). The General Plan Update would designate a net decrease of 699.9 acres of commercial and office uses compared to existing conditions and would designate 251.4 acres for mixed uses, including commercial uses. Thus, General Plan Update buildout is expected to result in some increase in the number of hazardous waste generators. Hazardous wastes would be stored, transported, and disposed of in conformance with existing regulations of the EPA, US Department of Transportation, CalRecycle, and other agencies.

Accidental Release of Hazardous Materials

Construction and operation of projects approved under the General Plan Update would involve some risk of accidental release of hazardous materials used by the projects, as well as accidental disturbance of existing hazardous materials in the environment, such as petroleum products released from leaking USTs, or ACM or LBP in existing buildings that would be renovated or demolished. Use, storage, transport, and disposal of hazardous materials in conformance with regulations would reduce both the likelihood of an accidental release and the potential consequences in the event of an accidental release. Impacts would be less than significant.

Level of Significance Before Mitigation: With the implementation of RRs HAZ-1 through HAZ-5; Community Policy 3.2 and Implementation Actions 1.3, 3.3, and 3.5; Conservation Policy 1.5 and Implementation Action 1.5; Economic Prosperity Policies 2.3 and 2.5; Land Use Policies 3.7 through 3.9 and Implementation Actions 3.3, 3.6, 3.17 through 3.22, 3.24, 3.26, 3.27, and 3.29; Open Space Policy 2.8; Safety Policies 2.1 through 2.6; Policies 4.1 through 4.6; and Implementation Action 2.4, Impact 5.8-1 would be less than significant.

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Impact 5.8-2: The plan area includes 555 sites included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 that could create a significant hazard to the public or the environment. [Threshold H-4]

Searches of environmental databases described in Section 5.8.1.2, *Existing Conditions*, identified 555 sites in the plan area: 18 were large quantity generators of hazardous wastes, 112 were small quantity generators, and 425 were hazardous materials sites on the GeoTracker and/or EnviroStor databases.

The list of 130 hazardous waste generators does not document releases of hazardous materials, and these generators are not environmental concerns related to the buildout of the General Plan Update. Of the 425 sites listed on GeoTracker and/or EnviroStor, cases were closed at 362 sites (85 percent). Only 63 sites are still open, which means that assessment, remediation, and/or verification of remediation is required at those sites. All 425 sites listed in Tables 5.8-2 and 5.8-3 are known to regulatory agencies.

Any development, redevelopment, or reuse on or next to any of these sites would require environmental site assessment by a qualified environmental professional to ensure that the project would not disturb hazardous materials on any of the hazardous materials sites or plumes of hazardous materials diffusing from one of the hazardous materials sites, and that any proposed development, redevelopment, or reuse would not create a substantial hazard to the public or the environment. Phase I Environmental Site Assessments are required for land purchasers to qualify for the Innocent Landowner Defense under CERCLA and to minimize environmental liability under other laws such as RCRA, and for lenders as a prerequisite to extend a loan for purchase of land. Impacts would be less than significant.

Level of Significance Before Mitigation: With the implementation of RRs HAZ-1 through HAZ-5, Conservation Policy 1.5, Economic Prosperity Policies 2.3 and 2.5, Land Use Policies 3.7 through 3.9, Open Space Policy 2.8, and Safety Policies 2.1 through 2.6 and Policies 4.1 through 4.6, Impact 5.8-2 would be less than significant.

Impact 5.8-3: Santa Ana is in the vicinity of an airport or within the jurisdiction of an airport land use plan. [Threshold H-5]

Land Use: Safety Compatibility Zones

Although part of the city is within Zone 6 (see Figure 5.8-4), the Traffic Pattern Zone for John Wayne Airport, there are no restrictions on residential land uses or on special characteristics (distracting lights or glare, sources of smoke or electrical interference, or attractors of birds), but Zone 6 prohibits outdoor stadiums and similar uses with very high intensities, and avoids children's schools, large day care centers, hospitals, and nursing homes (ALUC 2008). Safety zones are explained above in Table 5.8-1. The process for filing a project for a consistency determination with ALUC is specified in Section 4.7 of the AELUP. If the ALUC determines that a submittal is inconsistent with the AELUP, the ALUC must promptly notify the affected local agency. The local agency may modify the project to be consistent with the AELUP and resubmit the project to the ALUC for a determination of consistency, or choose to overrule the ALUC by following the procedure in Public Utilities Code Sections 21676 and 21676.5. This procedure requires the local agency to hold a public hearing with its

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governing body (e.g., Board of Supervisors, City Council), make specific findings that the proposed overruling is consistent with the purposes stated in Public Utilities Code Section 21670, and overrule the ALUC by at least a two-thirds vote of the governing body of the local agency.

Airspace Protection

Parts of the city are in areas where heights of structures are limited pursuant to FAA Part 77 Regulations that protect navigable airspace surrounding certain airports. The Airspace Protection Surface extends 10,000 feet horizontally from the runway at an elevation of 150 feet above the airport, or 206 feet above mean sea level (amsl), then angles upward an additional 4,000 feet horizontally at a slope of 1 vertical foot to 20 horizontal feet to an elevation of 400 feet amsl. Elevations in the part of Santa Ana under the Airspace Protection Surface range from 35 feet amsl at the southeast edge of the city to 60 feet amsl along the northeast edge of the Airspace Protection Surface. Maximum allowable heights of structures under the Airspace Protection Surface would vary by location. Existing heights of structures in Santa Ana are far below the maximum allowable heights under the Airspace Protection Surface. As set forth in Public Utilities Code Sections 21676 and 21676.5 and as discussed in the *California Airport Land Use Planning Handbook*, a key responsibility of an ALUC is to review particular types of local actions for compliance with the criteria and policies in a commission's adopted compatibility plan. Section 3.0 of the AELUP sets the policies and criteria by which a local action can be reviewed, and a determination of consistency can be made with the AELUP by the ALUC. Projects approved under the proposed General Plan Update would be required to comply with FAA airspace protection regulations using the AELUP consistency determination process. Thus, impacts are considered less than significant.

Heliports are only allowed outside of residential zoning districts with a conditional use permit pursuant to Section 41-621 of the Santa Ana Municipal Code. In addition, any proposed heliports shall undergo review by the ALUC, obtain an Airspace Analysis from the FAA as specified in Section 2.1.5 of the AELUP, and confirm consistency with the AELUP prior to construction, as specified in Section 4.7 of the AELUP.

Level of Significance Before Mitigation: With the implementation of RR HAZ-7, Conservation Policy 1.5, Economic Prosperity Policy 2.3, Land Use Policy 3.9, and Noise Policies 2.1 and 3.1 through 3.3, Impact 5.8-3 would be less than significant.

Impact 5.8-4: Buildout of the General Plan Update could affect the implementation of an emergency responder or evacuation plan. [Threshold H-6]

The City of Santa Ana has prepared a draft emergency operations plan (EOP) to ensure the most effective allocation of resources for the maximum benefit and protection of the civilian population in time of emergency. The EOP's objective is to incorporate and coordinate all available City resources into an efficient organization capable of responding to any emergency. Though no EOP can prevent all death and destruction, good plans carried out by knowledgeable and well-trained personnel will minimize losses. Santa Ana's EOP establishes the emergency organization and assigns tasks and general procedures. It provides for coordination of planning efforts of the various emergency staff and service elements using the Standardized Emergency Management System and National Incident Management System with all levels of government.

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The proposed General Plan Update permits development of substantial net increases of square footage and dwelling units. By increasing the population, traffic congestion may increase in these areas as well (see Section 5.16, *Transportation*, of this updated Draft PEIR). Thus, in the event of an accident or natural disaster, evacuation plans and routes could be adversely affected by the increased traffic. However, the Santa Ana Police Department commands the City's Emergency Management Division. The Emergency Management Division responds to extraordinary emergency situations, including natural disasters.

The buildout of the General Plan Update would not result in substantial changes to the circulation patterns or emergency access routes, and would not block or otherwise interfere with use of evacuation routes. Buildout would not interfere with operation of the City's Emergency Operations Center and would not interfere with operations of emergency response agencies or with coordination and cooperation between such agencies; thus, impacts to emergency response planning would be less than significant.

Level of Significance Before Mitigation: With the implementation of Public Services Policies 2.1 through 2.9, Impact 5.8-4 would be less than significant.

Impact 5.8-5: Santa Ana is not in a designated fire hazard zone, and implementation of the General Plan Update will not expose structures and/or residences to wildland fire danger. [Threshold H-7]

The plan area is not within a fire hazard severity zone. The nearest fire hazard severity zone to the plan area is over three miles to the northeast. Thus, development pursuant to the General Plan Update would not pose wildland fire hazards, and impacts would be less than significant.

Level of Significance Before Mitigation: Due to the lack of wildland fire hazards in the plan area, Impact 5.8-5 would be less than significant.

5.8.5 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: 5.8-1, 5.8-2, 5.8-3, 5.8-4, and 5.8-5.

There are no significant unavoidable adverse impacts relating to hazards.

5.8.6 References

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