Chapter 3: Environmental Analysis

This chapter explains the existing environmental setting and evaluates the potential environmental impacts associated with the implementation of the DHSP for the following issues:

- Land Use and Planning
- Transportation and Traffic
- Air Quality and Greenhouse Gas Emissions
- Noise
- Geology and Soils
- Hydrology
- Hazards and Hazardous Materials
- Aesthetics
- Cultural Resources
- Public Services and Recreation
- Public Utilities

Other environmental issues not analyzed in detail are discussed in *Chapter 5: CEQA Mandated Analysis* as environmental impacts found to have no impacts or less than significant impacts.

The environmental analysis in each of these sections is organized into five subsections:

1. **Environmental Setting** – This subsection includes local and regional information on the existing conditions of the DHSP area and is intended to define the baseline conditions for the area.
2. **Regulatory Framework** – The Regulatory Framework present local, regional and federal regulations that are relevant to the DHSP.
3. **Standard of Significance** – This subsection provides the standards or criteria used to evaluate whether an environmental impact is considered less than significant or significant .
4. **Impacts and Mitigation Measures** – The Impacts and Mitigation Measures section examines any direct and/or indirect impacts of implementing the proposed DHSP. If potentially significant adverse impacts are determined, feasible mitigation measures are identified to reduce these impacts to less than significance levels.
5. **Unavoidable Significant Adverse Impact(s)** – Even after mitigations are identified, adverse effect may still remain, in which case it is considered an unavoidable significant environmental impact.

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3.1 Land Use and Planning

This section of the EIR describes existing land uses and planning practices affecting the proposed DHSP and the surrounding area. This section examines the potential for direct impacts to land use or planning resulting from adoption and implementation of the proposed DHSP, including implementation and development within the four Transformative Project areas. It also examines indirect impacts resulting from potential future uses pursuant to the proposed Plan, including those indirect effects associated with other sections discussed in this EIR.

Specifically, this section analyzes the potential for change in land uses that could result from the adoption the DHSP, which would encourage greater flexibility in the mix of uses within the commercial and mixed-use zones and establish design and development standards that facilitate a built urban form within the DHSP area such that it supports long-term, sustainable development with a focus on connectivity, community and enhanced public transit amenities. Additionally, this section analyzes the potential for conflicts between existing and future land uses within and around the vicinity of the proposed Plan area, and the relationship of the proposed land use changes to relevant planning policies.

Environmental Setting

The DHSP area is located along and adjacent to the Hawthorne Boulevard and Imperial Highway corridors within the city of Hawthorne. The central portion of the City is framed along the north and west by the I-105 and I-405 Freeways, respectively. Surrounding cities include Inglewood, Gardena, Lawndale, Redondo Beach, and Manhattan Beach, as well as the unincorporated communities of Lennox and West Athens. The area is urbanized and the Los Angeles International Airport (LAX) is located less than two miles to the northwest. The city of Hawthorne has a history of attracting industrial and commercial development, being the original home to Northrop Grumman and many other aerospace businesses. The primary land uses in the proposed Plan area include residential, commercial, institutional and public facilities.

Plan Area Orientation

The proposed DHSP area encompasses an approximate 786-acre T-shaped area that is oriented primarily along a two-mile stretch of Hawthorne Boulevard (extending generally from the I-105 Freeway on the north to 142nd Street and Rosecrans Avenue on the south). Inclusion of an approximate half-mile stretch of the Imperial Highway corridor forms the top crossbar of this T-shaped area. The Plan area extends outwardly approximately two blocks (i.e., a distance between 500 and 800 feet) from each of the primary roadway corridors.

To facilitate the discussion of land uses, the Plan area can be functionally defined as three segments, as described below and used herein for reference.

The northern portion of the Plan area, or North Section, can generally be described as that area north of 118th Street, and which includes properties along and outlying from Imperial Highway and

the northerly portion of Hawthorne Boulevard that generally represent the top of the T-shaped Plan area. For reference, the 8-acre RFK Hospital site, although not part of the project, is encompassed within this northern portion.

The Middle Section of the Plan area is generally that portion of Hawthorne Boulevard (approximately three-quarter miles in length) and the land extending two blocks to the east and west of the roadway, that lies south of 118th Street and north of El Segundo Boulevard.

The South Section of the Plan area is that portion of the land area south of El Segundo Boulevard extending south to the Plan boundary along 142nd Street and Rosecrans Avenue. This includes an approximate one-mile segment of Hawthorne Boulevard.

Existing Land Uses

The proposed DHSP area contains a diverse mix of building sizes and conditions that reflect the area's historic development trends. Included within the Plan area are parcels of varied sizes and configurations, and a wide range of land uses and development intensities. For example, Hawthorne Boulevard is flanked by many small, shallow parcels, a common pattern in former streetcar corridors. The major exception to the pattern of small parcels along this corridor is the Hawthorne Mall site, which dates from a redevelopment project in the 1970s. Other exceptions include larger lots occupied by institutional uses, such as the Civic Center and several public school facilities.

In some parts of the Hawthorne Boulevard corridor, particularly in the southern portion of the Plan area between Rosecrans Avenue and El Segundo Boulevard, building patterns reflect development practice from the streetcar era, with narrow storefronts directly fronting onto the street and limited on-site parking. Other parts of the corridor are more automobile-oriented, with strip retail centers featuring significant surface parking and buildings set back from the street. Retail is the predominant land use, including a number of grocery stores, drug stores, restaurants, automotive service uses, personal and financial services, and other stores that primarily serve residents and employees who live and work in and around the Downtown Hawthorne area. The Plan area also includes a wide array of different single family and multi-family residential uses, with many older neighborhoods.

More specifically, the Plan area is comprised of a mix of land uses, including a range of commercial, residential and public and quasi-public facilities. Commercial uses are located along both sides of Hawthorne Boulevard, Imperial Highway and El Segundo Boulevard within the Plan area. Residential uses represent almost 50 percent of the total Plan area. Comprised equally of both single and multiple-family development, the residential uses are generally located behind the commercial uses that line Hawthorne Boulevard, Imperial Highway and El Segundo Boulevard. Single-family residential uses total 186.8 acres (23.8% of the total DHSP area) and multi-family residential uses total 203.9 acres (25.9% of the total). Commercial office, retail and services and associated parking total 135.9 acres (17.3% of the total). The remaining developed land uses include public facilities at 24.7 acres (3.1%), transportation, communication and utilities at 4.3 acres (0.5%) and industrial at 3.9 acres (0.5%). Although the DHSP area is highly urbanized, 75 parcels have been identified as vacant and total 17.7 acres or 2.3 percent of the DHSP area.

Existing Land Use Designations

The Plan area includes a variety of land use designations defined through the 1989 Hawthorne General Plan Land Use Element (which is discussed below under regulatory setting). Land Use Plan designations include four categories of commercial identified as Freeway Commercial/Mixed Use (FCMU), General Commercial (GC), Local Commercial (LC), and Mixed Use (MU); and three residential designations including Low-Density Residential (LDR), Medium-Density Residential (MDR) and High-Density Residential (HDR). Public Facility (PF) designated parcels are also scattered throughout the Plan area, consistent with larger parcels occupied by schools and civic uses.

Commercial designations within the northern portion of the Plan area are predominately FCMU (Freeway Commercial/Mixed Use), which lines both sides of Imperial Highway and extends several parcels, and in some areas up to a block, deep. The south edge of this northern area, as it transitions to the middle portion of the Plan area along Hawthorne Boulevard is designated GC (General Commercial), as are all the properties abutting Hawthorne Boulevard. Commercial GC designations within the middle portion of the Plan area include both large consolidated properties as well as small-lot parcels. The GC designation typically extends about 250 feet (i.e., about one block) back from the roadway corridor. Within the southern portion of the Plan area, commercial designations are limited to LC (Local Commercial), except for a few parcels along El Segundo Boulevard that are also designated GC. The LC designation along Hawthorne and El Segundo Boulevards typically extends outward up to 125 feet or less from the edge of the roadway.

Within the Plan area, residential land use designations are setback from the major roadways and the higher density uses are generally located toward the northerly end of the Plan area. Lower density residential land uses are generally designated with the southern portion of the Plan area, setback from the major roadways and separated from the road corridor by commercial and higher density residential uses.

Existing schools, the Civic Center and similar public/quasi-public facilities are designated PF (Public Facility). These PF designated areas are generally clustered in the vicinity of the intersection of Hawthorne and El Segundo Boulevards.

Land use intensities transition from north to south within the Plan area with 116th Street and El Segundo Boulevard marking notable transitions zones. The General Plan land use designations reflect an intended future buildout scenario that is somewhat different from the existing land uses and development currently observed in the Plan area. Most notable is the General Plan's vision of a more intense urban corridor along the entire segment of Imperial Highway, intended for a mix of freeway commercial (e.g., hotels, restaurants, auto centers, business parks, regional-serving retail, etc.) and medium-to-high density residential, with that designated mixed-use corridor extending almost a block deep (i.e., 250 feet or more) on either side of the roadway.

Existing Zoning

The Plan area encompasses a range of zone categories, including: C-1 (Freeway Commercial/Mixed Use); C-2 (Local Commercial); C-3 (General Commercial); R-1 (Low-Density Residential); R-2 (Medium-Density Residential); R-3 (High-Density Residential) and SP (Specific Plan). Several areas also reflect the MU (Mixed Use) Overlay.

Commercial zoned properties line both sides of Imperial Highway, Hawthorne Boulevard and El Segundo Boulevard. Within the northern portion, the commercial zone is primarily limited to C-1 (Freeway Commercial) or C-1 (MU) (Freeway Commercial with Mixed Use Overlay). Within the middle portion of the Plan area the commercial zone is primarily limited to C-3 (General Commercial). In the southern portion of the Plan area, the commercial zone is primarily C-2 (Local Commercial).

Residential zoned properties are located along the side streets paralleling the commercial corridors, generally behind the commercial zones. Within the northern and middle portion of the Plan area, R-3 (High-Density Residential) is the predominant residential zone. The area northerly of Imperial Highway also includes pockets of mixed use (supporting medium-to-high density residential with commercial) and R-2 (Medium-Density Residential). Within the middle section, there are also small pockets of R-1 (Low-Density Residential) along the east and west edges of the Plan area. Within the southern section, the residential zones include relatively equal area of properties as R-3 and R-1, with the R-3 zone functioning as a transitional buffer between the C-2 corridor along Hawthorne Boulevard and the R-1 zones along the east and west edges of the Plan area.

Two previously adopted specific plans represent site-specific zoning at two locations associated with the Plan area. These include the Prestige Village Specific Plan at the RFK Hospital site (technically, not a part of nor within the Plan area, but fully surrounded by it within the northern portion), and the Primavera Villas Specific Plan at the South Bay Ford site (i.e., the T3 Transformative Area). Neither of these two specific plan areas has been implemented. The RFK Hospital facility is currently vacant.

Existing General Plan land use designations within the Plan area provides for densities up to 30 units per acre in the R-3 zone, but with an overall average density of about 17 units per acre throughout. Maximum allowed intensities for the commercial zones range between 1.5 and 2.5 floor-to-area ratio (FAR).

The existing zoning generally reflects and corresponds to the existing land uses and development within the Plan area. Notable exceptions are that the public and quasi-public facilities within the Plan area (i.e., the Civic Center, Hawthorne Middle School, Washington Elementary School and Hawthorne Math/Science Academy) are zoned as non-institutional districts (i.e., commercial or residential), rather than institutional or public facility districts that are more representative of the actual current use. Another notable difference is that the current zoning does not reflect the extent of vacant (but developed) properties within the Plan area, such as the vacant Hawthorne Mall. A total of 75 parcels throughout the Plan area are vacant and have potential for being rezoned/redeveloped to transition these parcels as conforming upon redevelopment.

Compared to the future land uses intended by the General Plan land use designations and map, the existing zoning does not fully reflect the extent of the intended mixed-use and freeway commercial corridor along Imperial Highway and some adjustments would be necessary to attain a higher degree of consistency between adopted land use designations and the current observed zoning.

Regulatory Framework

Two principal documents govern land use within the Plan area; these are the Hawthorne General Plan Land Use Element and the Hawthorne Zoning Ordinance (both of which are described below). Other state and regional regulations and policy documents influence land use planning within the Hawthorne community. The applicable regulatory components are described below.

Federal Regulations

There are no federal regulations pertaining to land use and planning applicable to the DHSP and Transformative Projects.

State Regulations

Specific Plan Authority. Authority for a specific plan is established by the California Government Code, Title 8, Division 1, Chapter 3, Article 8, Sections 65450 through 65457, which grants authority to cities to adopt specific plans for the purposes of implementing the goals and policies of their general plans. A specific plan must be consistent with the adopted general plan of the jurisdiction within which it is located. In turn, all subsequent subdivision, development, public works projects and zoning regulations for the defined area must be consistent with the adopted specific plan. As with a general plan, the authority for adoption of the specific plan is vested with the local legislative body pursuant to Government Code Section 65453(a).

A specific plan is a tool for the systematic implementation of the general plan for a designated area. It should effectively establish a link between implementing policies of the general plan and the individual development proposal(s) within a defined plan area.

Specific plans systematically implement the general plan by: 1) acting as statements of planning policy that refine the general plan policies applicable to a defined area, 2) directly regulating land use, or 3) bringing together detailed policies and regulations into a focused development scheme. Once a specific plan is adopted, all development projects and development agreements for that specific area must be consistent with the plan.

A specific plan may be as general as setting forth broad policy concepts, or as detailed as providing direction to every facet of development from the type, location and intensity of uses to the design and capacity of infrastructure; from the resources used to finance public improvements to the design guidelines of a subdivision. The range of issues contained in a specific plan is generally left to the discretion of the decision-making body; however, all specific plans, must comply with Sections 65450 - 65457 of the Government Code. Further, the California Office of Planning and Research provides guidelines for the preparation of specific plans. Section 65451 of the Government Code mandates that a specific plan be structured as follows:

> (a) A specific plan shall include a text and a diagram or diagrams which specify all of the following in detail:
>
> > (1) The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.

(2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.

(3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.

(4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

(b) The specific plan shall include a statement of the relationship of the specific plan to the general plan.

As noted above, the previously adopted Primavera Villas Specific Plan (T3 Transformative Project) would be superceded by the DHSP. Also, once adopted, the proposed DHSP, which is the subject of this EIR, would become the policy-based and implementing action plan document for the 786 acres within its designated boundary.

Regional Regulations

Southern California Association of Governments (SCAG) and the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Southern California Association of Governments (SCAG) is the designated Regional Transportation Planning Agency under state law, and is responsible for preparing the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS) component pursuant to Senate Bill (SB) 375. SCAG reviews the consistency of local plans, projects, and programs with regional plans. Guidance provided by this review is intended to assist local agencies and project sponsors to take actions that contribute toward the attainment of regional goals and policies in the RTP/SCS.

In April 2012, the SCAG Regional Council adopted the 2012 RTP/SCS. The 2012 RTP/SCS links the goals of sustaining mobility with goals of fostering economic development, enhancing the environmental, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations.

Local Regulations

Hawthorne General Plan Land Use Element (LUE). The Hawthorne General Plan serves as a blueprint for future growth and development within the city of Hawthorne through 2020. The Land Use Element (LUE) of the General Plan is intended to guide future development in the city, including aspects of circulation, transportation, and housing planning, which are related to and closely integrated with land use issues. The LUE contains goals and policies that guide the pattern of land development, including development related to residential, commercial, industrial, recreational and other uses, and it establishes the distribution and intensity for those land uses within the city.

To that end, the LUE assigns each piece of land within city a land use designation that reflects the goals and policies of the overall General Plan and provides guidance for determining allowable land

uses. The current land use designations for property within the Plan area are described above under existing setting. These designations also note the associated zoning classifications that implement the various land use designations.

In addition to establishing land use designations for land within the city of Hawthorne, the LUE identifies numerous goals and related policies to ensure that the city's character will be preserved and the vision for future growth accomplished.

The goals and policies contained in the LUE are concerned with preserving the integrity of the individual neighborhoods that make up the city while ensuring that future development is compatible with the environment (existing and future) and responsive to constraints that might be present. While new development can be beneficial to a city, future growth must be managed in a sensible and rational manner. The City seeks to accomplish the following with the implementation of the goals and policies contained in the LUE:

- Establish a balanced and functional mix of development consistent with the long-range goals, objectives and values of the City;
- Provide a guide for both public and private investments indicating where new development is permitted and the nature, density, and intensity of that development;
- Identify opportunities for new development and the redevelopment and revitalization of existing development in the city as well as any constraints that might affect this new development;
- Reduce of loss of life, injury and property damage that might result from flooding, seismic hazards and other natural and man-made hazards that need to be considered in future land use planning and decision making;
- Preserve and maintain the residential quality of the individual neighborhoods which comprise the city.

Hawthorne Zoning Code. Zoning provides specific regulation for development (including regulation of its physical buildout, permitted uses and ongoing operation). As required by law, the Hawthorne General Plan LUE and Zoning Ordinance should be consistent with each other to ensure that long-term goals and objectives are implemented as intended through land use regulations and other tools. The Zoning Ordinance and zoning districts (e.g., zoning map) are the primary tools for implementing the LUE. One or more zone districts may correspond to a LUE land use designation. The current zoning districts for property within the Plan area are described above. However, some zones may differ from the corresponding land use designation, thus indicating the intent that zoning changes are required to maintain consistency with the LUE.

In 2012, the city of Hawthorne approved a high density residential zoning category and established a Mixed-Use Overlay. The objective of this program was to focus growth and development in established urban areas, to encourage and facilitate infill development, to provide for affordable housing, and to create opportunities for transit-oriented development. Areas targeted by the Mixed-Use Overlay included the North Section of the Plan area and pockets of properties within the South Section.

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to land use and planning if it would:

- Introduce new land uses that would result in conflicts of use;
- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

Impacts and Mitigation Measures

Impact 3.1-1 Conflict of Land Use

The DHSP would be considered to result in a conflict of land use(s) due to implementation and/or buildout of the Plan area, or any one of the four Transformative Project areas, if any of the following conditions were to result:

- A substantial amount of existing development would be considered non-conforming as a result of zoning actions;
- There would be a substantial change in the residential density and commercial development intensity of an area resulting in compatibility concerns;
- There would be increased potential for land use conflicts and nuisance relationships between existing and future land uses; or
- A substantial shift in the overall balance of land uses between what exists and what is presumed due to future buildout of the Plan Area, such as the conversion of developed areas from residential to non-residential uses over time or vice versa.

Specific Plan

Implementation of the proposed DHSP is expected to result in a net increase of 317 residential dwelling units and a net increase of approximately 2.17 million square feet of non-residential uses throughout the DHSP area by 2035. New development resulting from the Plan could result in land use conflicts between existing or future land uses, which are explained below.

The proposed Plan would not result in a substantial amount of existing development being rendered non-conforming. Over the years, development and growth in the city of Hawthorne has not evolved to the levels envisioned under the General Plan. Consequently, current developed conditions in some areas within the Plan area reflect a built environment for which existing uses and present zoning are found to be inconsistent with the designated General Plan land uses. Many of the

current uses were developed before the current General Plan and zoning were adopted; thus, these properties are not consistent with those regulations but still are considered "legally non-conforming" uses; that is, the uses/buildings are on record as legal development because they existing prior to adoption of the current zoning designation. The proposed Plan would establish a land use program that bridges the gap between existing established uses under current zoning with a directive toward future uses that promote transit orientation and economic viability and closer conformity with the General Plan LUE goals.

While comparison of existing uses with proposed future uses does have the potential to cause some existing buildings or uses to become non-conforming, it is recognized that any future development would be required to comply with all applicable City regulations, including design, setbacks, heights, and others. Further, future projects would be required to re-zone properties accordingly to reflect the intended future uses consistent with the DHSP Land Use Diagram (see previous **Figure 2-4**). Thus, the proposed DHSP is anticipated to function as a catalyst of change that would in turn result in revitalization of existing non-conforming properties, bringing about a higher degree of conformity (with both the existing General Plan land use designation and future zoning).

Land use incompatibility can occur where differences exist among uses that are located in close proximity to each other. These incompatibilities may result from differences in the physical scale of development, noise levels, traffic levels, hours of operation, and other factors. The potential for conflicts within the proposed Plan area exists in particular where residential land uses are proposed within mixed-use developments (e.g., residential uses placed in proximity to commercial, office and entertainment uses), and where residential uses may be located adjacent to existing and/or permitted or planned intensive commercial development.

Conventional zoning typically divides cities into zones that rigidly segregate residential, commercial, industrial, and institutional uses into separate areas. The proposed DHSP provides for a mixture of land uses that are based on development intensity and relative location to freeway access and regional public transit. The transition of the Plan area from predominantly segregated land uses, to mixed-use and integrated development at higher densities would occur over time as individual properties are developed under the DHSP standards and guidelines.

Currently, only limited areas permit mixed-use development based on previously targeted nodes per the Mixed Use Overlay ordinance (adopted in 2012) and previously approved specific plans (i.e., the Primavera Villas). The proposed DHSP would permit and facilitate mixed-use development through the two mile Hawthorne Boulevard corridor.

The proposed Plan creates the potential for conflict between abutting residential and commercial land uses, as well as residential land uses within mixed-use areas. However, mixed uses are already permitted and encouraged within the Plan area. With the approval of the Mixed Use Overlay (adopted 2012), the city of Hawthorne established a mechanism to integrate varied and combination uses as infill development. Ultimately, the City determined that such potential conflicts could be readily avoided or mitigated through thoughtful design. Development implementing the proposed DHSP would be subject to project review and expected to adhere to the City's zoning regulations, which include operational standards for nonresidential uses to protect adjacent uses from potential detrimental effects by reason of noise, odor, refuse matter, light,

vibration, inadequate screening, or lack of proper maintenance of grounds or buildings, and requires that all property be maintained in a safe, sanitary, and attractive condition. The City's land use standards control the type of activities and intensity of development such that land use incompatibilities would be minimized. Therefore, provided new development within the Plan area adheres to adopted development and design standards, potential land use conflict impacts would be ***less than significant***.

Transformative Projects

Buildout of the DHSP Transformative Projects only (i.e. not including remaining non-Transformative Project areas) through year 2020 would collectively generate a net increase of 655 multi-family residential units, but a net increase of 822,700 square feet of non-residential building space (commercial, medical, office, and public). The Transformative Projects are a combination of commercial, public, and mixed uses (including residential). Below is an impact analysis for each Transformative Project as it relates to land use compatibility and land use conflicts.

Hawthorne Mall (T1). The currently vacant mall building would be demolished and new construction at the T1 site would accommodate 608 residential units (i.e., 304 market rate apartments and 304 units for seniors) and approximately 2.49 million square feet of non-residential uses, including parking structures, 180,000 square feet of office, 403,000 square feet of retail/retail flex-space, and 455,000 square feet of research and development (R&D)/production studio uses. Because the building has sat vacant for almost two decades, the adjacent single-family residential neighborhoods to the north and east would experience potential increases in noise, traffic and nighttime illumination associated with reactivation of the T1 site. The City's land use standards control the type of activities and intensity of development such that land use incompatibilities would be minimized. Therefore, provided new development within the Plan area adheres to adopted development and design standards, potential land use conflict impacts would be ***less than significant***.

Civic Center (T2). Additional non-residential uses (including general commercial and a 300-room hotel) associated with the addition of mixed-use development within the existing civic center uses as the T2 site will attract people to and intensify activity within this area. Intensification of this area to accommodate commercial uses integrated into the existing Civic Center would increase noise, traffic and nighttime illumination levels beyond those currently experienced in the T2 area. However, the City's land use standards control the type of activities and intensity of development such that land use incompatibilities would be minimized. Therefore, provided new development within the Plan area adheres to adopted development and design standards, potential land use conflict impacts would be ***less than significant***.

South Bay Ford (T3). The mixed-use development proposed for the T3 would be compatible with the residential nature of the uses to the east of the site. In addition, the commercial component of the Transformative Project would continue the commercial uses along Hawthorne Boulevard. Furthermore, the City's land use standards control the type of activities and intensity of development such that land use incompatibilities would be minimized. Therefore, provided new

development within the Plan area adheres to adopted development and design standards, potential land use conflict impacts would be ***less than significant***.

St. Joseph's Plaza (T4). T4 will not generate new residential dwelling units or nonresidential uses, as it will serve as public open space and community amenity within the plan area. Community activities and events may be held in the plaza area. In general, the type of community activities anticipated for St. Joseph's Plaza (i.e., farmers market, local art festivals, community concerts, etc.) would be short-term special events activities that are regulated through the City's temporary use and special events permitting process. Proposed events would individually reviewed, permitted and conditioned such that the potential for conflict and nuisance to nearby businesses and residential neighborhoods, due to temporary noise, traffic, litter, lighting and safety would be minimized or avoided. The impact of T4 would be ***less than significant***.

Mitigation Measures 3.1-1

The proposed DHSP would not result in any significant plan or project-specific impacts related to land use conflicts or compatibility, and therefore no mitigation measures are required. Mitigation measures for indirect impacts related to mixed uses and new development are identified, as appropriate, in other sections of this EIR.

Level of Impact After Implementation of Project Mitigation 3.1-1

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.1-2 Division of Community

Specific Plan

Large-scale development projects could have impacts to an existing community where development results in physical division of an area. However, future development in the Plan area is not likely to alter the basic pattern of development prescribed in the General Plan, and will consist primarily of the recycling of land and intensification of existing development. The proposed DHSP is designed to facilitate better connectivity within and around the Hawthorne Boulevard and Imperial Highway corridors and to stimulate economic rejuvenation of an area. The large abandoned or under-utilized parcels that currently exist do, in essence, divide the community, which in turn distracts from the cohesiveness of the community. The proposed DHSP contributes to improved connectivity through enhanced pedestrian access and integration of public open space and plazas that are intended for bringing together and reinforcing the community, thereby improving upon the sense of disconnection created by vacant voids of healthy development. The DHSP aims to build community and cohesiveness throughout the Plan area as a whole, and specifically through more immediate development of the Transformative Project sites. Because the proposed DHSP aims to improve the compatibility between land uses and the interconnectedness between neighborhoods and communities, project impacts associated with the physical division of an established community would be ***less than significant***, and may in fact be considered beneficial.

Transformative Projects

Development of the Transformative Projects would have a positive effect on establishing cohesiveness and would enhance the overall sense of community. Specifically, the Transformative Projects are viewed as catalyst development projects that would jumpstart transitionary changes throughout the Plan area by year 2020. Implementation of projects at the T1, T3 and T4 sites would enhance cohesiveness and connectivity by supporting active uses on vacant or unoccupied parcels. Incorporation of mixed-uses at the T1 (Hawthorne Mall) and T3 (South Bay Ford) sites and commercial uses (government and retail/office) at the T2 (Civic Center) site would further emphasize the pedestrian environment and encourage community connectivity through each Transformative Project site. As with the implementation of the DHSP generally, the project impacts associated with the physical division of an established community due to development at any of the Transformative Areas would be ***less than significant***.

Mitigation Measures 3.1-2

The proposed DHSP would not result in any significant plan or project-specific impacts related to the physical division of the community, and therefore no mitigation measures are required.

Level of Impact After Implementation of Project Mitigation 3.1-2

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.1-3 Consistency with Applicable Land Use Plans

Specific Plan

The proposed DHSP is a strategic document that provides guidance to City officials and staff, addresses the community's unique issues, and sets the course for positive future change. It includes a series of text, diagrams and graphics that describe concepts and requirements for future public improvements and private developments. It will be used by the City to enhance the economic vibrancy, character, health and overall quality of the Downtown area. Chapter 2 of the proposed DHSP provides the Vision Framework, which includes the broad goals and strategies for the entire Plan area, as well as targeted objectives for each of the four Transformative Project areas. The DHSP has been prepared pursuant to the provisions of California Government Code Title 7, Division 1, Chapter 3, Article 8, Sections 65450 through 65457, which grants cities the authority to adopt specific plans for the purposes of implementing the goals and policies of general plans.

Hawthorne General Plan. The DHSP establishes a link between implementing policies of the General Plan and individual projects that would occur within the Plan area. State law requires the DHSP to be consistent with the Hawthorne General Plan. The General Plan provides the overarching framework used for the DHSP visioning blueprint.

The Land Use Element of the City's General Plan serves as a long-range guide for land use and development in the City. This element indicates the type, location, and intensity of development and land uses permitted in the City. The primary objective of the Land Use Element is to assist in the

management of future growth, to improve the overall physical appearance, to minimize potential land use conflicts, and to facilitate growth and development reflecting the community's vision. Specifically, the Hawthorne General Plan addresses the issue of compatibility between existing and future development though thoughtful design.

The DHSP builds from those broader goals and policies of the General Plan to ensure consistency, and well as establish more definitive policies and strategies for implementation within the Plan area. Through this approach, the proposed DHSP is consistent with the General Plan. Specifically, the DHSP is consistent with General Plan Land Use Policies 1.2 and 2.3 that provide for review of the Hawthorne Boulevard area to determine a feasible approach for commercial revitalization. In addition, the major goals, policies and strategies of the DHSP are consistent with other goals and policies established in the General Plan.

When adopted, the DHSP would serve as the Land Use Plan for the Plan area. All other city of Hawthorne codes and ordinances would continue to apply to properties and projects within the proposed DHSP area, unless expressly superseded by the terms of the Specific Plan. The DHSP proposes a land use configuration that would integrate mixed use (i.e., mixed residential and commercial developments) throughout the Plan area. The mixed uses are consistent with the City's General Plan and zoning designations generally within the Plan area. However, to adopt the DHSP requires a General Plan Amendment (GPA) and subsequent zone changes so that a mix of commercial and residential uses can be integrated within single development concepts and at buildout intensities that are generally greater than what currently exists. In addition, the DHSP mixed use concept would introduce non-traditional commercial and quasi-commercial/office uses, such as flexible retail, administrative offices, research and development (R&D), and studio/media production uses, as well as hotel uses. Since the proposed Plan would result in a change in some of the existing land use designations, this could be considered a significant change in terms of land use planning. However, with adoption of the proposed General Plan amendment and related designations, no planning conflict would result. And the nature of the land use changes are intended to update the range to uses to reflect current and future land use trends through a broader range of business options within the traditional land use categories.

The proposed DHSP would redesignate the land use categories in strategic areas that are identified on the basis of prevailing density and intensity of use. The proposed DHSP is intended to facilitate a well-designed mix of development projects that combine residential and non-residential uses to be integrated with existing development in a manner that is compatible and non-intrusive, and more likely to encourage a balance of live-work-shop-dine within a walkable and well connected environment.

More specifically, the proposed Plan would alter the existing General Plan land use allocation by integrating more mixed use (and including a broader range of uses within that mix) within the Middle Section of the Plan Area and reducing the degree of intended mixed use within the North Section. Further, the DHSP would establish a Hospitality within the North Section that would consolidate higher intensity commercial uses rather than spread them throughout the Imperial Highway corridor. In general, the densities and intensities that would be allowed under the proposed DHSP would decrease in some areas, increase in a few selected areas, and leave them unchanged in other areas. Overall, the net change in density/intensity would remain consistent with

that already allowed under the General Plan, but the DHSP presents a physical land use strategy that would make better utilization of the City's land resources and enhance its ability to realize its long-range community objectives.

With the implementation of the proposed land use designations, the existing mid-rise and single family land use pattern within the Middle Section could evolve over time into a denser urban pattern with more mid-rise residential and new mixed residential and commercial uses. While any future development would be required to comply with all applicable City regulations, including design, setbacks, heights, and others, this potential change could be considered by some to be a significant impact.

The DHSP is designed to be consistent with policies contained in the General Plan, including those related to land uses, safety and visual resources. The proposed Plan would encourage and focus on development of vacant and underutilized lands within the corridor neighborhoods to create an environment that would be neighborhood serving, and which would enhance the visual quality and land use compatibility of the Plan area and the surrounding neighborhoods by replacing areas of blight and poorly maintained vacant parcels. Additionally, the City would provide design review on a project-level basis that is based on current guidelines for neighborhood compatibility and visual enhancement. Because the DHSP is overall designed to enhance, promote and implement the existing policies of the City's General Plan, implementation of the proposed Plan would not conflict with the identified policies.

Concurrent with approval of the DHSP by the Hawthorne decision makers, the Hawthorne General Plan would be amended accordingly to reflect minor adjustments to tie the two planning documents together and resolve any internal conflicts.

SCAG 2012 RTP/SCS. As the proposed DHSP is consistent with Hawthorne General Plan, it is also consistent with goals of the SCAG 2012 RTP/SCS. As presented in **Table 3.1-1**, the analysis identified the DHSP strategies that are consistent with the SCAG RTP/SCS.

The DHSP area is a completely urbanized, built out environment that does not contain large areas of undeveloped open space, environmentally sensitive areas or agricultural lands. The DHSP strategies serve to strengthen and reinforce the SCAG 2012 RTP/SCS goals as demonstrated in **Table 3.1-1**. The proposed land use arrangement anticipated for the Plan area provides for a significant employment center adjacent to Metro Green Line's Hawthorne station, thus encouraging increased transit use and reducing the number of auto trips and vehicle miles traveled. These land use plan aspects reinforce broader public policy goals for sustainability. Further, the DHSP emphasizes pedestrian orientation, and mixing land uses to promote and enhance the experience and convenience of walking as a viable alternative to driving within the code area. The proposed DHSP establishes a framework for future development of underutilized parcels within the Plan area and would make use of existing infrastructure and transportation systems.

Because the proposed DHSP would not conflict with the land use plans, policies and regulations of the applicable land use planning documents, impacts related to plan consistency would be ***less than significant***.

Table 3.1-1: Consistency with SCAG 2012 RTP/SCS Goals

SCAG RTP/SCS Goals		Consistency Analysis - DHSP Strategies
RTP/SCS G1	Align the plan investments and policies with improving regional economic development and competitiveness	▪ **Strategy A1:** To create a business-friendly environment and expand retail, service and dining opportunities in order to support existing business, while attracting new businesses and investment in Downtown Hawthorne. ▪ **Strategy A2:** To leverage Downtown Hawthorne's proximity to the Los Angeles International Airport, great beaches and the broader South Bay region by encouraging hotel development and related uses that attract travelers and tourists. ▪ **Strategy A3:** To capitalize on Downtown Hawthorne's location to create innovative mixed-use and employment centers. ▪ **Strategy A4:** To maintain the City of Hawthorne's long-term fiscal sustainability by encouraging development and economic activity that contributes to the City's overall economic and fiscal health. ▪ **Strategy B4**: To upgrade and expand existing public infrastructure to make it more efficient and to ensure that it supports long-term economic growth.
RTP/SCS G2	Maximize mobility and accessibility for all people and goods in the region	▪ **Strategy B4**: To upgrade and expand existing public infrastructure to make it more efficient and to ensure that it supports long-term economic growth.
RTP/SCS G3	Ensure travel safety and reliability for all people and goods in the region	▪ **Strategy B1:** To enhance the pedestrian and bicycle network within Downtown in order to expand connectivity, improve safety and foster better access. ▪ **Strategy B2:** To improve the experience for transit riders through enhanced amenities, access, safety and landscaping.
RTP/SCS G4	Preserve and ensure a sustainable regional transportation system	▪ **Strategy B4**: To upgrade and expand existing public infrastructure to make it more efficient and to ensure that it supports long-term economic growth. ▪ **Strategy B1:** To enhance the pedestrian and bicycle network within Downtown in order to expand connectivity, improve safety and foster better access. ▪ **Strategy B2:** To improve the experience for transit riders through enhanced amenities, access, safety and landscaping.
RTP/SCS G5	Maximize the productivity of our transportation system	▪ **Strategy B1:** To enhance the pedestrian and bicycle network within Downtown in order to expand connectivity, improve safety and foster better access.

Table 3.1-1 (Continued): Consistency with SCAG 2012 RTP/SCS Goals

SCAG RTP/SCS Goals		Consistency Analysis - DHSP Strategies
RTP/SCS G6	Protect the environment and health for our residents by improving air quality and encouraging active transportation, such as bicycling and walking)	▪ **Strategy B1:** To enhance the pedestrian and bicycle network within Downtown in order to expand connectivity, improve safety and foster better access. ▪ **Strategy C1: Gathering Spaces.** To create a range of open spaces at varying scales to provide opportunities for community gathering, activities and economic development. ▪ **Strategy C3: Sustainable Community and Environment.** Support community-oriented programs that support inclusivity, community health and sustainability.
RTP/SCS G7	Actively encourage and create incentives for energy efficiency, where possible	▪ **Strategy B4**: To upgrade and expand existing public infrastructure to make it more efficient and to ensure that it supports long-term economic growth -- expand the use of renewable energy generation.
RTP/SCS G8	Encourage land use and growth patterns that facilitate transit and non-motorized transportation	▪ **Strategy A3:** To capitalize on Downtown Hawthorne's location to create innovative mixed-use and employment centers. ▪ **Strategy B1:** To enhance the pedestrian and bicycle network within Downtown in order to expand connectivity, improve safety and foster better access.
RTP/SCS G9	Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies	▪ The City of Hawthorne will continue to coordinate transportation planning with federal, state and local transportation agencies.

Transformative Projects

Implementation of the Transformative Projects would serve as a catalyst for the realization of the DHSP. Because the proposed DHSP would be consistent with applicable land use plans, policies and regulations, so too would be the Transformative Projects. Therefore, impacts associated with plans, policies and regulations due to development of any of the Transformative Projects defined in the DHSP would be ***less than significant***.

Mitigation Measures 3.1-3

The proposed DHSP would not result in any significant plan or project-specific impacts related to land use plans, policies or regulations, and therefore no mitigation measures are required.

Level of Impact After Implementation of Project Mitigation 3.1-3

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.1-4 Consistency with Applicable Population/Households/ Employment Forecasts

Specific Plan

The SCAG population, households and employment forecasts were adopted along with the SCAG 2012 RTP/SCS. These regional growth forecasts represent the most likely growth scenario for the Southern California region in the future, taking into account a combination of recent and past trends, reasonable key technical assumptions, and local or regional growth policies. The regional growth forecast is used as a key guide for future transportation investments in the SCAG region.

The local SCAG forecasts, including those of the City of Hawthorne, reflect local and regional policies. **Table 3.1-2**, presents the SCAG forecast of population, households, and employment for Hawthorne for the years 2020, and 2035 for the City of Hawthorne. Current population and households are based on the State Department of Finance (DOF) E-5 2014 estimates. For the purposes of this analysis, current employment for the City was based on the 2008 estimates by SCAG, which was also the base year for the SCAG 2012 RTP/SCS forecast.

As presented in **Table 3.1-2**, there were 86,685 residents and 28,877 households in Hawthorne in 2014. The number of jobs in Hawthorne totaled approximately 20,600 in 2008. According to SCAG, Hawthorne's population is forecast to increase to 89,600 residents by 2020 and 96,300 residents by 2035, an increase of 2,915 and 9,615 from the 2014 estimates, respectively. Households are forecast to increase between 2014 and 2020 and 2035 by 623 and 1,723, respectively. Employment is forecast to increase by 500 jobs between 2008 and 2020, and by 1,200 jobs between 2008 and 2035.

Table 3.1-2: SCAG Population/Households/Employment Growth Forecast for City of Hawthorne

Forecast	2014[a]	2020	2035	Growth 2015-2020	Growth 2015-2035
Population	86,685	89,600	96,300	2,915	9,615
Households	28,877	29,500	30,600	623	1,723
Employment	20,600[b]	21,100	21,800	500	1,200

Source: SCAG 2012 RTP/SCS Growth Forecast
(a) Population and Households estimates from the California Department of Finance E-5 report
(b) Current employment estimate represents 2008 as shown in the SCAG Growth Forecast

Based on the development potential of the proposed Plan, it is estimated the Plan area's housing stock will increase by 317 units by 2035. With implementation of the Plan and assuming current household sizes in the future, areas designated by the Plan as Residential and Mixed-Use are anticipated to increase, while areas designated for Commercial, Hospitality and Public/Quasi-Public are anticipated to decline, but overall both population and households will increase over the 2014-2035 period. Assuming the DOF 2014 estimate of Hawthorne's persons per dwelling unit of 2.86 and a vacancy rate of 4.6 percent, buildout of the Plan would increase population by 906 residents and 303 households. It is also anticipated that areas outside the Plan area, but within the City will continue to develop according to the General Plan and at levels forecast by SCAG. Therefore, the development of the Plan area is not anticipated to push the City's overall population and household totals beyond those levels forecast by SCAG in 2035. This is considered a ***less than significant*** impact.

The non-residential development in the Plan area is anticipated to increase by approximately 2.49 million square feet of building space by 2035. This figure takes into account the demolition and new construction of the existing vacant Hawthorne Mall. Assuming an employment generation rate of 400 square feet per employee, development of the Plan in 2035 would generate approximately 6,221 jobs in the Plan area. This would far exceed the SCAG employment forecast by 4,600 jobs. However, since Hawthorne is housing-rich and jobs-poor, with a job-to-household ratio of 0.71 as compared to a region-wide ratio of 1.29, the increase in jobs is a benefit not only to the City, but to the subregion as well.

Transformative Projects

Development of the four Transformative Projects could result in 655 more dwelling units and approximately 822,700 square feet of non-residential uses. Based on the DOF 2014 estimate of Hawthorne's persons per dwelling unit of 2.86, the proposed Transformative Projects would generate a net increase of 1,873 more residents to the Plan area by 2020. By applying the current DOF vacancy rate of 4.6 percent for the City, the net increase in households is estimated at 625. This potential increase in households and population of the Transformative Projects represent 64 percent of the SCAG population forecast and almost the same number of future as the SCAG households forecast for Hawthorne. This level of growth is consistent with the levels of growth forecast by SCAG for the City and would be considered a ***less than significant*** impact.

For employment growth, development of the Transformative Projects would result in a net increase of approximately 2,145 jobs by 2020. This is based on an employment generation factor of 400 square feet per employee. This level of employment growth exceeds the job growth forecast by SCAG for the City by about 1,556 jobs. Similar to the findings for the total Plan area in 2035, the job growth would benefit the City since it is housing-rich and jobs-poor.

Mitigation Measures 3.1-4

The proposed DHSP is consistent with the SCAG 2012 RTP/SCS growth forecasts, and thus, impacts are considered ***less than significant***. No mitigation measures are required.

Level of Impact After Implementation of Project Mitigation 3.1-4

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

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3.2 Transportation/Traffic

This section is based on the traffic impact study prepared by Evan Brook Associates in November 2015. The traffic study evaluated the potential impacts associated with the implementation of the DHSP. The Intersection Capacity Utilization (ICU) method of intersection analysis was used to determine the volume-to-capacity ratio (V/C) and corresponding level of service (LOS). The study presents existing 2015 traffic conditions and calculated future 2020 and 2035 peak-hour conditions on six selected roadway segments, five on/off freeway ramps and 15 street intersections. Additionally, the traffic impact study incorporated the comments from the California Department of Transportation ("Caltrans") as part of the NOP review of this project. The Caltrans letter dated March 19, 2015 is included in **Appendix A**, and the complete traffic impact study is in **Appendix B** of this EIR.

Environmental Setting

Regional Access

Freeways are controlled-access, high-speed facilities with grade-separated interchanges. They are intended to carry high volumes of traffic from region to region. The planning, design, construction, and maintenance of freeways in California are the responsibility of the Caltrans.

The City of Hawthorne is served by two nearby interstate freeways, which effectively provide connections to and from the South Bay subregion, and to other subregions within the metropolitan area and regional destinations. The two interstate freeways to Hawthorne are described below:

Interstate 105. The Century Freeway (I-105) is an east-west freeway that connects the South Bay/LAX area and the I-405 freeway to the I-110 and I-605 freeway in Norwalk. This freeway is the northern border of the DHSP and is the border between the City of Hawthorne and the unincorporated community of Lennox. There are west-bound off ramps at Prairie Avenue and Hawthorne Boulevard and an east-bound off ramp at Prairie Avenue. On ramps to the east-bound I-105 are located on Hawthorne Boulevard and at the intersection of Imperial Highway and Freeman Avenue.

Interstate 405. The San Diego Freeway (I-405) traverses the western portion of the City Hawthorne and is generally located approximately one mile west of the DHSP area. The closest I-405 on and off ramps to the DHSP area are at El Segundo Boulevard and Rosecrans Avenue.

Local Roadway Network

Arterial Street. An arterial street is defined as a major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to properties. Major north-south arterials serving the DHSP area are Inglewood Avenue, Hawthorne Boulevard, and Prairie Avenue. Major east-west arterials found in the DHSP area include Imperial Highway, El Segundo Boulevard and Rosecrans Avenue. Generally, both north-south and east-west arterial streets are spaced apart at even one-mile distances.

Minimum arterial street right-of-way width in Hawthorne is one hundred feet and is designed to provide an eighty-four foot width curb-to-curb.

Collector Streets. A collector street is a street for traffic moving between arterial and local streets, generally providing direct access to properties. Typical collector streets found in the DHSP area include 120th Street, 135th Street, Broadway Avenue, and Ramona Avenue. Minimum collector street right-of-way width in Hawthorne is eighty feet and is designed to provide a sixty-four foot width curb to curb.

Local Streets. A local street provides direct access to properties and is designed to discourage through-traffic. Generally, these types of streets serve the residential needs of the community by carrying low volumes of traffic. They also serve neighborhood commercial and industrial land uses. Minimum local street right-of-way width in Hawthorne is sixty feet and is designed to provide a forty-foot width curb to curb.

Truck Routes

The City of Hawthorne presently has a designated truck route system that utilizes many of its major traffic ways. According to the 1989 General Plan Circulation Element, designated truck routes in the DHSP area include Imperial Highway, Hawthorne Boulevard, Inglewood Avenue, Prairie Avenue, El Segundo Boulevard and Rosecrans Avenue. These routes provide the city with a system which offers truck access to commercial and industrial areas while confining trucks to major streets. As such, existing truck routes reduce excessive noise, dust, and traffic hazards associated with truck movement from encroaching upon residential areas.

Transit Lines

The Los Angeles County Metropolitan Transportation Authority (MTA) provides an extensive bus service through Hawthorne and adjacent areas connecting commuters and visitors to area-wide employment, shopping, residential, entertainment, commercial and other attraction centers. Hawthorne Boulevard is served by Line Nos. 40, and 740, while Line Nos. 215, 211, 126 serve Inglewood Avenue, Prairie Avenue and Yukon Avenue, respectively. Line Nos. 120 and 125 serve Imperial Highway and Rosecrans Avenue, respectively. Municipal bus operators, Gardena Municipal Bus Service and Torrance Transit lines run along El Segundo Boulevard. Metro Green Line Rail service, running along I-105 Freeway connecting cities on the west and east serves Hawthorne businesses and residents through its Hawthorne/Lennox Station located at Hawthorne Boulevard.

Rail Lines

A Union Pacific Railroad (UP) line traverses east-west through the Plan area between Broadway Avenue and 126th Street. It runs perpendicular to Hawthorne Boulevard and bisects the Hawthorne Mall Transformative Project (T1) area. It is also a portion of the northern boundaries of the Civic Center Transformative Project (T2) area. On average, one freight train travels west-bound on the rail line per day between the hours of 10:00 AM and 11:00 AM, and returns east-bound between the hours of 1:00 PM and 2:00 PM.

Bicycling

The City of Hawthorne's Bicycle Transportation Plan shows existing and proposed bike ways along major arterials and corridors within and around DHSP area. The City has recently installed a Class II Bike Lane to segments of Hawthorne Blvd.

The City has worked closely with Los Angeles County to coordinate with the Los Angeles County Bicycle Master Plan. Most recently, the City has designed bicycle corridors and facilities as part of two new major capital improvement projects.

These include a Class II Bike Lane to Hawthorne Boulevard between El Segundo Boulevard and Rosecrans Avenue, and a Class III Bike route between Imperial Highway and El Segundo Boulevard. An additional stretch of Class III bike lane will be extended along Imperial Highway from Hawthorne Boulevard to the City's western boundary at Inglewood Avenue. This will result in a bike corridor that stretches the entire north-south axis of the City of Hawthorne.

Parking

The City Hawthorne Municipal Code establishes parking requirements, design and access criteria appropriate to each land use category. Parking provided within the City is a combination of on-street parking and surface parking on-site.

Level of Service Criteria

Roadway operations and the relationship between capacity and traffic volumes are generally expressed in terms of levels of service (LOS). Levels of service are defined as LOS A through F. These levels recognize that, while an absolute limit exists as to the amount of traffic traveling through a given intersection (the absolute capacity), the conditions that motorists experience rapidly deteriorate as traffic approaches the absolute capacity. Under such conditions, congestion is experienced. There is generally instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity is exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. An upstream queue will form and continue to expand in length until the demand volume reduces.

A complete description of the meaning of level of service can be found in the Highway Research Board's Special Report 209: Highway Capacity Manual which establishes the definitions for LOS A through F. Brief descriptions of the six levels of service, as extracted from the manual, are listed in **Table 3.2-1**.

Table 3.2-1: Level of Service Definition

LOS	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to congestion. In the extreme case, both speed and volume can drop to zero.

Source: Highway Research Board's Special Report 209: Highway Capacity Manual

LOS D is the minimum threshold at all key intersections in the urbanized areas. The traffic study guidelines require that traffic mitigation measures be identified to provide for operations at the minimum threshold levels.

For the Plan area intersections, the Intersection Capacity Utilization (ICU) procedure has been utilized to determine intersection levels of service. Levels of service are presented for the entire intersection, consistent with the local and regional agency policies.

The level of service criteria for unsignalized and signalized intersections are shown in **Table 3.2-2.**

Table 3.2-2: Level of Service Criteria

Level of Service	Two-Way or All-Way Stop Controlled Intersection Average Delay per Vehicle (sec)	Signalized Intersection Average Delay per Vehicle (sec)	Volume to Capacity (V/C) Ratio
A	0 - 10	< or = 10	0 – 0.60
B	> 10 - 15	> 10 - 20	> 0.60 – 0.70
C	> 15 - 25	> 20 - 35	> 0.70 - 0.80
D	> 25 - 35	> 35 - 55	> 0.80 – 0.90
E	> 35 - 50	> 55 - 80	> 0.90 – 1.00
F	> 50	> 80 or a V/C ratio greater than 1.0	> 1.00

Existing Traffic Conditions

The Specific Plan's existing conditions (as well as future conditions) analysis includes existing intersection traffic volumes, traffic controls and lane geometrics, parking and pedestrian facilities, a review of existing land uses, and determination of existing levels of service at the following 22 intersections (17 street intersections and five freeway ramps) within the Plan area and its vicinity.

Street Intersections and Freeway On/Off Ramps

1. Prairie Ave./120th St.
2. Hawthorne Blvd./120th St.
3. Inglewood Ave./120th St.
4. Hawthorne Blvd./Lennox Blvd.
5. Hawthorne Blvd./Marine Ave.
6. Hawthorne Blvd./139th St.
7. Hawthorne Blvd./Imperial Hwy.
8. Hawthorne Blvd./Broadway.
9. Hawthorne Blvd./El Segundo Blvd.
10. Hawthorne Blvd./Rosecrans Ave.
11. Inglewood Ave./Imperial Hwy.
12. Inglewood Ave./El Segundo Blvd.
13. Inglewood Ave./Rosecrans Ave.
14. Prairie Ave./El Segundo Ave.
15. Prairie Ave./Imperial Hwy.
16. Hawthorne Blvd. and I-105 Westbound (WB) Off-ramp
17. Imperial Hwy. and I-105 Eastbound (EB) On-ramp
18. Prairie Ave. and I-105 EB Off-ramp
19. El Segundo Blvd. and I-405 Northbound (NB) On/Off-ramp
20. El Segundo Blvd. and I-405 Southbound (SB) On/Off-ramp
21. Birch Ave./El Segundo Blvd.
22. Birch Ave./120th St.

Traffic count data for these intersections were conducted in the month of February, 2015 during weekday AM and PM peak periods as well as during a Saturday peak period. **Figure 3.2-1** shows the location of the 20 intersections.

Six major roadways provide regional access to the Specific Plan area. The three major roadways that provide north-south access are Inglewood Avenue, Hawthorne Boulevard and Prairie Avenue, and the three major roadways that provide east-west access are Imperial Highway, 120th Street and El Segundo Boulevard. Traffic counts were conducted using automatic traffic counters on six mid-block segments of major roadways in the month of February 2015. Roadway segment level of service analysis was conducted using these traffic count data, roadway characteristics, lane geometry, and roadway capacity for the following six roadway segments:

1. 120th St. between Prairie Ave. and Doty Ave.
2. 120th St. between Inglewood Ave. and Hawthorne Blvd.
3. Hawthorne Blvd. between El Segundo Blvd. and 135th St.
4. Imperial Hwy. between Inglewood Ave. and Hawthorne Blvd.
5. El Segundo Blvd. between Inglewood Ave. and Hawthorne Blvd.
6. El Segundo Blvd. between Prairie Ave. and Yukon Ave.

Existing intersection lane configurations are shown on **Figure 3.2-2**, and existing turning movement volumes for AM and PM peak hour conditions are shown on **Figure 3.2-3.** Detailed turning movement counts as well as 24-hour daily traffic counts data are included in **Appendix B**.

Existing 2015 Conditions and Levels of Service

Year 2015 existing traffic conditions were evaluated using the Intersection Capacity Utilization (ICU) procedure of level of service analysis.

Table 3.2-3 presents a summary analysis of the existing weekday intersection level of service. Detailed calculations relating to the study intersections are included in **Appendix B**. The results indicate that 18 of the 22 study intersections are currently operating at an acceptable level of service (LOS D or better). The remaining four intersections are operating at an unacceptable LOS E during either AM or PM or both peak hours. These four intersections are:

- Prairie Ave. and 120th St.
- Inglewood Ave. and El Segundo Blvd.
- Inglewood Ave. and Rosecrans Ave.
- Prairie Ave. and Imperial Hwy.

Table 3.2-4 presents a summary of existing weekday level of service for roadway segments. The results indicate that the six roadway segments analyzed are operating at an acceptable level of service (LOS A through D) during peak hours and also on a weekday 24-hour basis.

Study Intersections:			
1. Prairie Av / 120th St	7. Hawthorne Bl / Imperial Hwy	13. Inglewood Av / Rosecrans Av	19. El Segundo Av / I-405 NB on-off-ramp
2. Hawthorne Bl / 120th St	8. Hawthorne Bl / Broadway	14. Prairie Av / El Segundo Bl	20. El Segundo Av / I-405 SB on-off-ramp
3. Inglewood Av / 120th St	9. Hawthorne Bl / El Segundo Bl	15. Prairie Av / Imperial Hwy	21. Birch Av / El Segundo Bl
4. Hawthorne Bl / Lennox Bl	10. Hawthorne Bl / Rosecrans Av	16. Prairie Av / I-105 EB off-ramp	22. Birch Av / 120th St
5. Hawthorne Bl / Marine Av	11. Inglewood Av / Imperial Hwy	17. Imperial Hwy / I-105 EB on-ramp	
6. Hawthorne Bl / 139th St	12. Inglewood Av / El Segundo Bl	18. Hawthorne Bl / I-105 WB off-ramp	

North

Downtown Hawthorne Specific Plan
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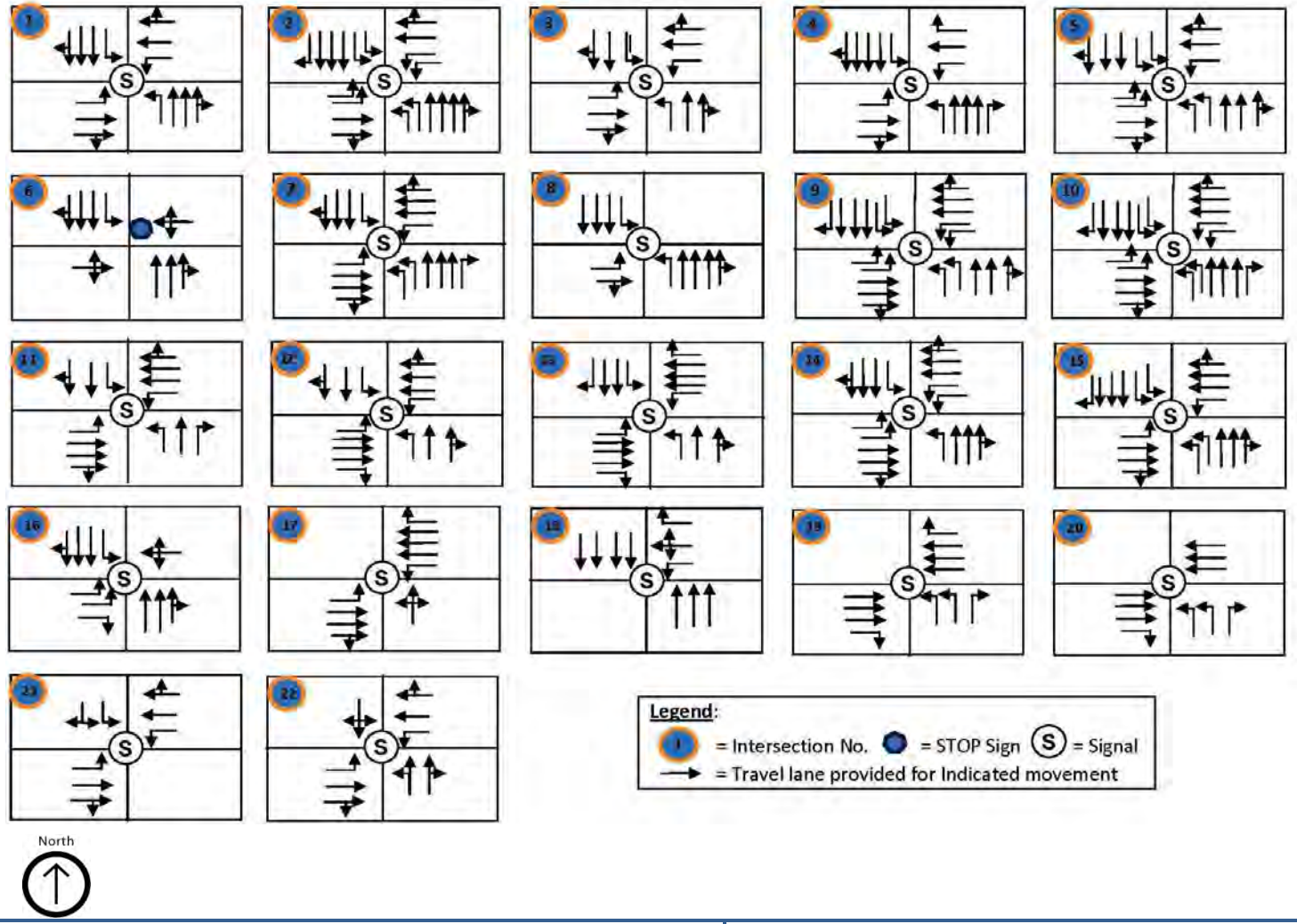
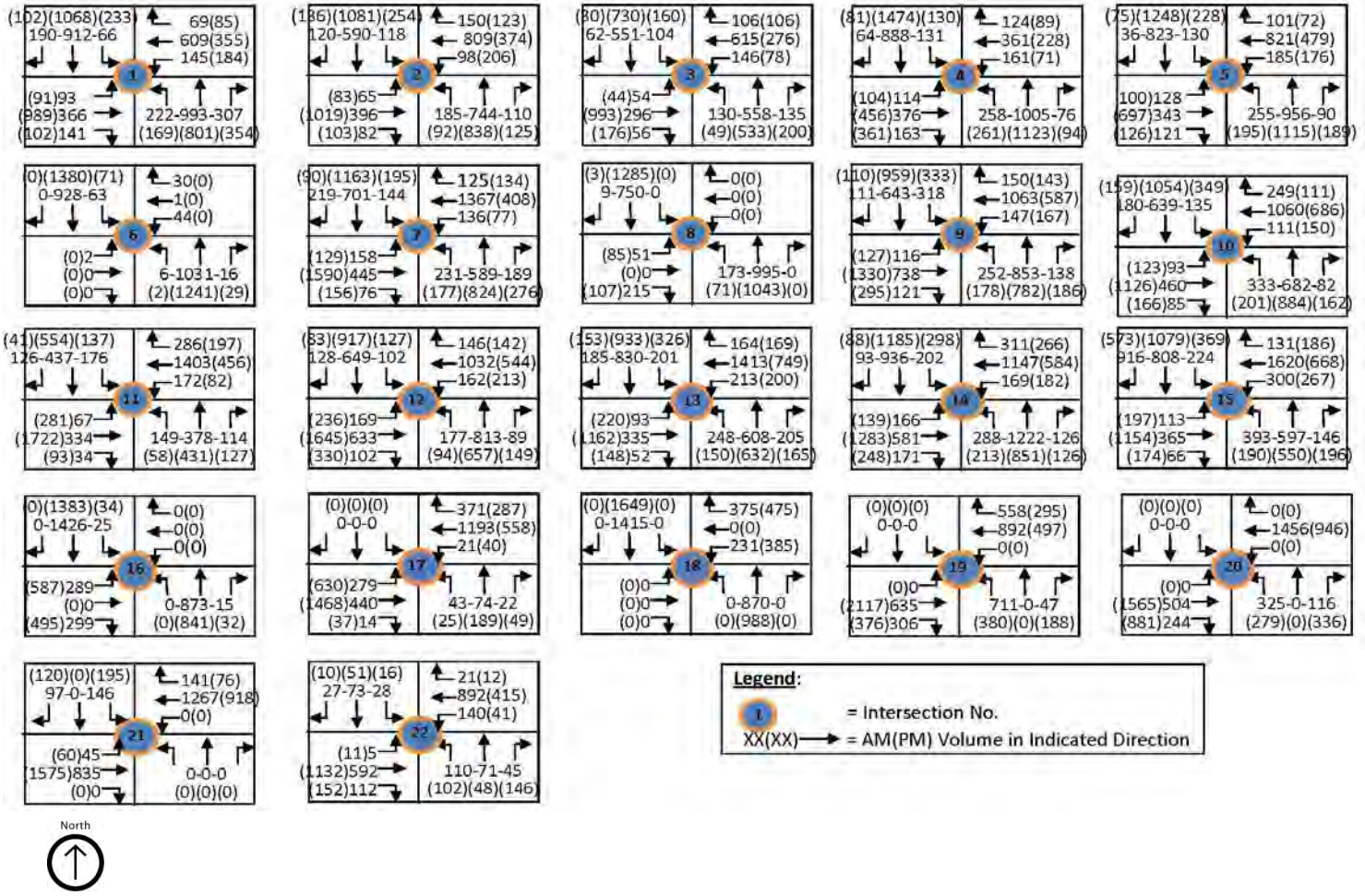
Figure 3.2-1
Study Intersections



Downtown Hawthorne Specific Plan ***Draft EIR***	**Figure 3.2-2** **Existing Intersection Lane Configurations**



Downtown Hawthorne Specific Plan ***Draft EIR***	**Figure 3.2-3** **Existing Turning Movement Volumes** **AM and PM Peak**

Table 3.2-3: Existing 2015 Intersection Level of Service (Weekday)

Intersection	Peak Hour	Existing 2015 Traffic Volumes	
		V/C	LOS
1. Prairies Ave. and 120th St.	AM	0.738	C
	PM	0.942	**E**
2. Hawthorne Blvd. and 120th St.	AM	0.609	B
	PM	0.779	C
3. Inglewood Ave. and 120th St.	AM	0.641	B
	PM	0.843	D
4. Hawthorne Blvd. and Lennox Blvd.	AM	0.707	C
	PM	0.806	D
5. Hawthorne Blvd. and Marine Ave.	AM	0.700	B
	PM	0.818	D
6. Hawthorne Blvd. and 139th St.	AM	0.406	A
	PM	0.410	A
7. Hawthorne Blvd. and Imperial Hwy.	AM	0.781	C
	PM	0.834	D
8. Hawthorne Blvd. and Broadway	AM	0.501	A
	PM	0.480	A
9. Hawthorne Blvd. and El Segundo Blvd.	AM	0.710	C
	PM	0.814	D
10. Hawthorne Blvd. and Rosecrans Ave.	AM	0.654	B
	PM	0.727	C
11. Inglewood Ave. and Imperial Hwy.	AM	0.840	D
	PM	0.884	D
12. Inglewood Ave. and El Segundo Blvd.	AM	0.804	C
	PM	0.947	E
13. Inglewood Ave. and Rosecrans Ave.	AM	0.867	D
	PM	0.920	**E**
14. Prairie Ave. and El Segundo Ave.	AM	0.868	D
	PM	0.880	D
15. Prairie Ave. and Imperial Hwy.	AM	1.174	**F**
	PM	0.845	D
16. Prairie Ave. and I-105 EB Off-ramp	AM	0.584	A
	PM	0.698	B
17. Imperial Hwy. and I-105 EB On-ramp	AM	0.610	B
	PM	0.838	D
18. Hawthorne Blvd. and I-105 WB Off-ramp	AM	0.465	A
	PM	0.598	A
19. El Segundo Blvd. and I-405 NB On/off-ramp	AM	0.696	B
	PM	0.673	B
20. El Segundo Blvd. and I-405 SB On/off-ramp	AM	0.516	A
	PM	0.773	C
21. Birch Ave. and El Segundo Blvd.	AM	0.513	A
	PM	0.714	C
22. Birch Ave. and 120th St.	AM	0.488	A
	PM	0.619	B

Source: Traffic Impact Study by Evan Brook Associates, November 2015

Table 3.2-4: Existing 2015 Roadway Segment Level of Service (Weekday)

Roadway Type	Dir.	No. of Lanes	AM Peak Hour				PM Peak Hour				Average Daily Traffic	Weekday Both Direction			
			Vol	Cap	V/C	LOS	Vol	Cap	V/C	LOS		Vol	Cap	V/C	LOS
120th St between Prairie Ave and Doty Ave															
Major Arterial	EB	2	701	1,600	0.44	A	1,324	1,600	0.83	D	13,561	32,879	60,000	0.55	A
	WB	2	693	1,600	0.43	A	574	1,600	0.36	A	7,947				
120th St between Inglewood Ave and Hawthorne Blvd															
Major Arterial	EB	2	682	1,600	0.43	A	1,368	1,600	0.86	D	11,669	19,541	40,000	0.49	A
	WB	2	841	1,600	0.53	A	485	1,600	0.30	A	7,872				
Hawthorne Blvd between El Segundo Blvd and 135th St															
Major Arterial	NB	3	1,030	2,400	0.43	A	1,373	2,400	0.57	A	14,518	29,519	60,000	0.49	A
	SB	3	878	2,400	0.37	A	1,386	2,400	0.58	A	15,001				
Imperial Hwy between Inglewood Ave and Hawthorne Blvd															
Major Arterial	EB	3	623	2,400	0.26	A	1,373	2,400	0.57	A	14,518	29,519	60,000	0.49	A
	WB	3	1648	2,400	0.69	B	1,386	2,400	0.58	A	15,001				
El Segundo Blvd between Inglewood Ave and Hawthorne Blvd															
Major Arterial	EB	3	843	2,400	0.35	A	1,702	2,400	0.71	C	15,771	30,737	60,000	0.51	A
	WB	3	1413	2,400	0.59	A	829	2,400	0.35	A	14,966				
El Segundo Blvd between Prairie Ave and Yukon Ave															
Major Arterial	EB	3	950	2,400	0.40	A	1,744	2,400	0.73	C	18,403	33,545	60,000	0.56	A
	WB	3	1354	2,400	0.56	A	1,023	2,400	0.43	A	15,142				

Source: Traffic Impact Study by Evan Brook Associates, July 2015

Note: Daily Capacity for Major Arterial is 60,000 vehicles/day (6-lane), and 40,000 vehicles/day (4-lane)

Daily Capacity for 4-lane Secondary Arterial is 40,000 vehicles/day

Peak hour Capacity for Major Arterial is 800 vehicles/hour per lane

Peak hour Capacity for Secondary Arterial is 700 vehicles/hour per lane

Regulatory Framework

Regional Regulations

Los Angeles County Metropolitan Transportation Authority, Congestion Management Program. The Congestion Management Program (CMP) was created statewide because of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority. The CMP for Los Angeles County requires that the traffic impact of individual development projects of potentially regional significance be analyzed. A specific system of arterial roadways plus all freeways comprises the CMP system. There are no CMP roadways and no CMP monitoring stations within the DHSP area; however, there are two regional freeways (I-105 and I-405) serving the City of Hawthorne that are in the CMP system.

Southern California Association of Governments, Regional Transportation Plan/Sustainable Communities Strategy. The Southern California Association of Governments (SCAG) is the designated Regional Transportation Planning Agency under state law, and is responsible for preparing the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS) component pursuant to SB 375. SCAG reviews the consistency of local plans, projects, and programs with regional plans. Guidance provided by this review is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of the regional goals and policies in the RTP/SCS.

The goals of the SCAG 2012 RTP/SCS that pertain to transportation include:

- Maximize mobility and accessibility for all people and goods in the region.
- Ensure travel safety and reliability for all people and goods in the region.
- Preserve and ensure a sustainable regional transportation system.
- Maximize the productivity of our transportation system.
- Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).
- Encourage land use and growth patterns that facilitate transit and non-motorized transportation.

Local Regulations

Hawthorne General Plan Circulation Element. The Circulation Element sets forth goals and policies that are to be implemented and promotes the effective use of transportation facilities to efficiently and safely move people and goods while striving to preserve and protect the economic, environmental, and natural resources. The City seeks to accomplish the following with the implementation of the goals and policies contained in the Circulation Element:

Goal 1.0: Provide for the safe and efficient movement of people, goods, and services throughout the City.

Policy 1.1: The City shall maintain a coherent local circulation system based on a hierarchy of streets which serve the needs of all residents.

Policy 1.2: The City shall review and improve traffic control signalization and signage.

Policy 1.3: The City shall maintain and develop new traffic and parking restrictions along narrow streets in neighborhood areas which impede through traffic.

Policy 1.4: The City shall continue to require land dedication from existing alleys in order to create minimum 20 foot alleyways.

Policy 1.5: The City shall review and improve existing parking conditions and requirements for all land uses within the City.

Policy 1.6: The City shall review and authorize design, engineering, and roadway improvement projects.

Policy 1.8: The City shall encourage the maintenance and improvement, where appropriate, of the safe and convenient bicycle and pedestrian movement through the City.

Policy 1.9: The City shall discourage driveway approach entrances/exits for all corner lots and all reverse corner lots in all zone classifications from being located closer than twenty feet from the point formed by the intersection of the front lot line and the side lot line separating the lot from the street.

Policy 1.10: The City shall discourage driveway approaches to be taken in all zone classifications that would exceed 50% of the street frontage on any lot.

Policy 1.11: The City shall review and consider the re-design of the center median along Hawthorne Boulevard between Imperial Highway and Rosecrans Avenue.

Policy 1.12: The City shall examine the feasibility of designating streets for one-way traffic flow.

Policy 1.13: The City shall review and consider the designation of additional bike-lanes where appropriate.

Policy 1.15: The City shall encourage the reconstruction and upgrading of railroad crossings to improve circulation and safety.

Policy 1.16: The City shall review and encourage the use of public transportation through the expansion of local and regional bus systems; encouragement of vanpooling, carpooling, jitneys, and the new light-rail transit system; and consideration of staggered work hours for local businesses.

Policy 1.17: Properties abutting an alley shall be discouraged from using the street for ingress and egress.

Policy 1.18: The City shall discourage the use of local city streets as carriers of inter-city traffic.

Policy 1.20: The City shall consider the vacation of the street between 129th Street from Washington Avenue to the first alley east of Hawthorne Boulevard (Williams Way) and Washington Avenue from El Segundo Boulevard to 129th Street.

Policy 1.21: The City shall recommend to the county that the following traffic signals along five uniform traffic control county corridor routes be upgraded with respect to signal timing and coordination:

Policy 1.22: The City shall encourage the improvement of traffic signals along major corridors in the City as follows:

Standard of Significance

The following thresholds of significance are based on Appendix G of the CEQA Guidelines, as amended. For purposes of this EIR, implementation of the proposed DHSP may have a significant adverse impact on transportation if it would result in any of the following:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)

A project's traffic impact on the circulation system is determined by comparing the level of service and V/C ratios at key intersections under the future pre-project conditions and future post-project conditions. A LOS D or better is acceptable for urban area intersections, and a level of service worse than D (i.e., LOS E or F) is unacceptable.

Impacts and Mitigation Measures

Impact 3.2-1 Level of Service

Specific Plan

Traffic generation was based on the development potential of the DHSP area by 2035. **Table 3.2-5** shows the estimated increase of 20,978 daily trips over existing conditions, an increase 22.9 percent. For trip distribution purposes, the percentage increases of existing trips due to cumulative developments were applied to existing peak hour volumes at each study intersection. The results provided traffic volumes at each study intersection under 2035 cumulative traffic scenario.

Table 3.2-5: Trip Generation by DHSP Development, 2035

ITE Land Use Code	Land Use	Amount of Units	Estimated Trip Generation						
			Daily	AM Total	AM In	AM Out	PM Total	PM In	PM out
Existing Conditions									
230	Residential Condominium	7,116 DU	41,344	3,131	532	2,599	3,629	2,432	1,198
820	Shopping Center	1,780 KSF	76,433	1,780	1,086	694	6,639	3,253	3,386
	Less Pass-by Trips (20%)		22,930	534	326	208	1,992	976	1,016
710	Office	1,780 KSF	19,633	2,777	2,444	333	2,652	451	2,201
	Total		114,481	7,154	3,736	3,418	10,929	5,160	5,769
	Internal Capture (20%)		22,896	1,431	747	684	2,186	1,032	1,154
Net Total			**91,584**	**5,723**	**2,989**	**2,734**	**8,743**	**4,128**	**4,615**
DHSP Developments by 2035									
230	Residential Condominium	-388 DU	-1,964	-149	-25	-123	-172	-115	-57
820	Shopping Center	672 KSF	28,856	672	410	262	2,507	1,228	1,278
	Less Pass-by Trips (20%)		8,309	194	118	75	722	354	368
710	Office	672 KSF	7,412	1,048	923	126	1,001	170	831
	Total		26,223	1,437	1,157	279	2,621	972	1,648
	Internal Capture (20%)		5,245	287	231	56	524	194	330
Net Total			**20,978**	**1,149**	**926**	**223**	**2,097**	**778**	**1,319**
% increase of Existing Traffic due to DHSP Development			**23.4%**	**19.6%**	**31.9%**	**6.1%**	**24.4%**	**18.9%**	**29.4%**

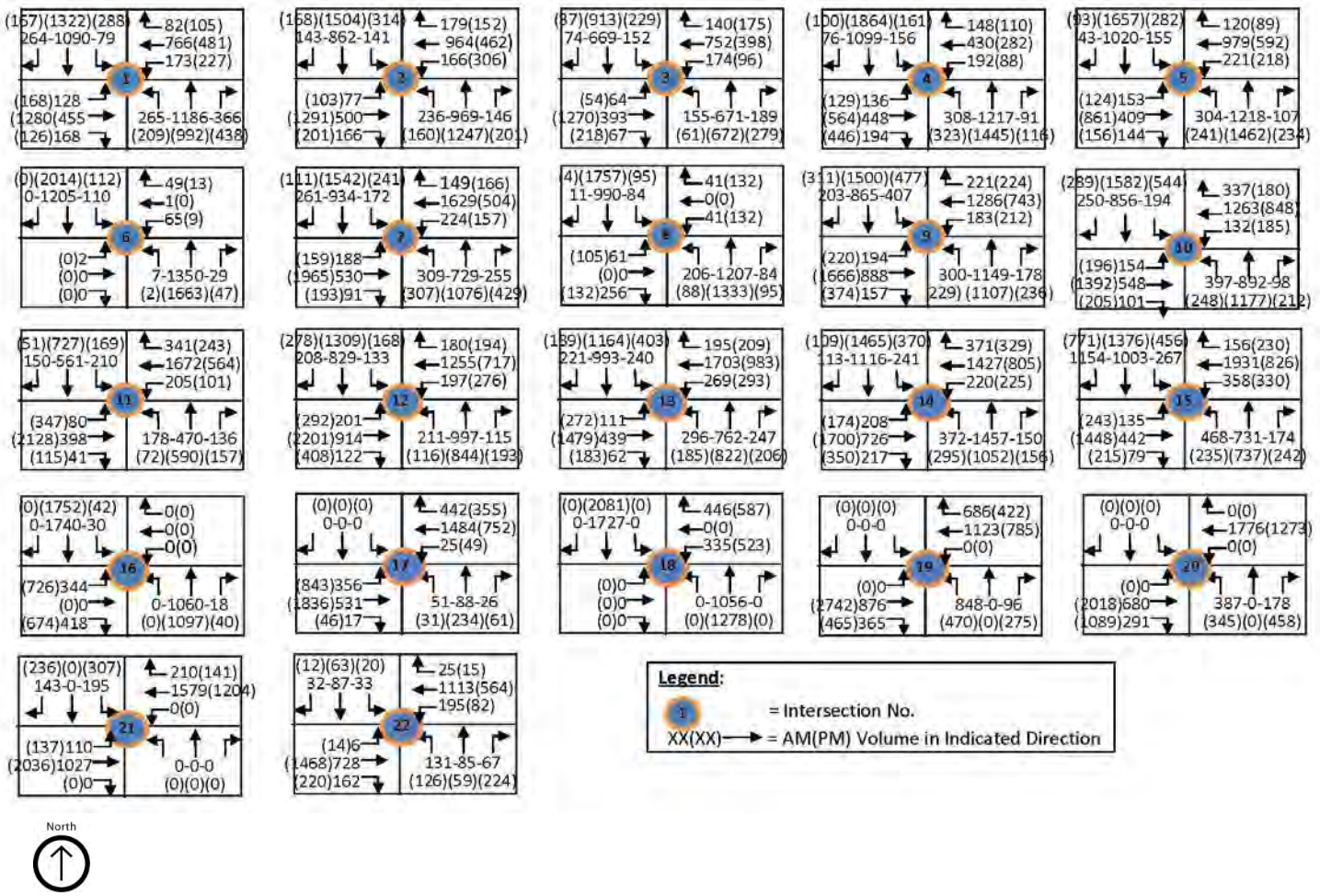
Source: Traffic Impact Study by Evan Brook Associates, November 2015

Level of service analysis was conducted for the 22 key intersections with projected future traffic volumes with and without the DHSP project. The results are illustrated in **Figure 3.2-4** and presented in **Table 3.2-6.**

The results indicate that 16 of the 22 study intersections would be operating at an unacceptable LOS E or F during either AM or PM or both peak hours. These 16 intersections include:

- Prairie Ave. and 120th St.
- Hawthorne Blvd. and 120th St.
- Inglewood Ave. and 120th St.
- Hawthorne Blvd. and Lennox Blvd.
- Hawthorne Blvd. and Marine Ave.
- Hawthorne Blvd. and Imperial Hwy.
- Hawthorne Blvd. and El Segundo Blvd
- Hawthorne Blvd. and Rosecrans Ave.
- Inglewood Ave. and Imperial Hwy.
- Inglewood Ave. and El Segundo Blvd.
- Inglewood Ave. and Rosecrans Ave.
- Prairie Ave. and El Segundo Ave.
- Prairie Ave. and Imperial Hwy.
- Imperial Hwy. and I-105 EB On-ramp
- El Segundo Blvd. and I-405 SB On-off-ramp
- Birch Ave. and El Segundo Blvd.

However, a comparison between 2035 with and without DHSP projects indicates that except for the intersection of Hawthorne Boulevard and Lennox Boulevard, the remaining 15 intersections show project-related ***significant*** impacts in 2035.



Downtown Hawthorne Specific Plan ***Draft EIR***	**Figure 3.2-4** **2035 Turning Movement Volumes** **AM and PM Peak**

Table 3.2-6: Future 2035 Intersection Level of Service With and Without DHSP

Intersection	Peak Hour	Future 2035 Traffic Conditions				+/- V/C
		Without DHSP		With DHSP		
		V/C	LOS	V/C	LOS	
1. Prairies Ave. and 120th St.	AM	0.861	D	0.893	D	0.032
	PM	1.141	F	1.159	F	***0.018***
2. Hawthorne Blvd. and 120th St.	AM	0.707	C	0.746	C	0.039
	PM	0.940	E	1.041	F	***0.101***
3. Inglewood Ave. and 120th St.	AM	0.744	C	0.783	C	0.039
	PM	1.019	F	1.066	F	***0.047***
4. Hawthorne Blvd. and Lennox Blvd.	AM	0.823	D	0.830	D	0.007
	PM	0.972	E	0.979	E	***0.007***
5. Hawthorne Blvd. and Marine Ave.	AM	0.815	D	0.826	D	0.011
	PM	0.997	E	1.005	F	***0.018***
6. Hawthorne Blvd. and 139th St.	AM	0.464	A	0.530	A	0.066
	PM	0.483	A	0.540	A	0.057
7. Hawthorne Blvd. and Imperial Hwy.	AM	0.912	E	0.945	E	***0.033***
	PM	1.008	F	1.099	F	***0.091***
8. Hawthorne Blvd. and Broadway	AM	0.578	A	0.597	A	0.019
	PM	0.569	A	0.604	A	0.035
9. Hawthorne Blvd. and El Segundo Blvd.	AM	0.827	D	0.899	D	***0.072***
	PM	0.982	E	1.044	F	***0.062***
10. Hawthorne Blvd. and Rosecrans Ave.	AM	0.760	C	0.803	D	0.043
	PM	0.874	D	0.931	E	***0.057***
11. Inglewood Ave. and Imperial Hwy.	AM	0.982	E	0.994	F	***0.012***
	PM	1.069	F	1.105	F	***0.036***
12. Inglewood Ave. and El Segundo Blvd.	AM	0.940	E	0.981	E	***0.041***
	PM	1.147	F	1.299	F	***0.152***
13. Inglewood Ave. and Rosecrans Ave.	AM	1.014	F	1.019	F	0.005
	PM	1.113	F	1.164	F	***0.051***
14. Prairie Ave. and El Segundo Ave.	AM	1.016	F	1.035	F	***0.019***
	PM	1.065	F	1.117	F	***0.052***
15. Prairie Ave. and Imperial Hwy.	AM	1.380	F	1.419	F	***0.039***
	PM	1.020	F	1.064	F	***0.044***
16. Prairie Ave. and I-105 EB Off-ramp	AM	0.677	B	0.724	C	0.047
	PM	0.839	E	0.886	E	0.047
17. Imperial Hwy. and I-105 EB On-ramp	AM	0.708	C	0.735	C	0.027
	PM	1.012	F	1.052	F	***0.040***
18. Hawthorne Blvd. and I-105 WB Off-ramp	AM	0.536	A	0.579	A	0.043
	PM	0.716	C	0.752	C	0.036
19. El Segundo Blvd. and I-405 NB On/off-ramp	AM	0.810	D	0.823	D	0.013
	PM	0.808	D	0.843	D	0.035
20. El Segundo Blvd. and I-405 SB On/off-ramp	AM	0.596	A	0.604	A	0.008
	PM	0.932	E	0.959	E	***0.027***
21 Birch Ave. and El Segundo Blvd.	AM	0.592	A	0.686	B	0.032
	PM	0.859	D	0.925	E	***0.018***
22. Birch Ave. and 120th St.	AM	0.562	A	0.607	B	0.032
	PM	0.742	C	0.801	C	0.018

*Source: Traffic Impact Study by Evan Brook Associates, July 2015 Note: Italic and **Bold** indicate significant impacts*

Transformative Projects

The year 2020 traffic conditions were analyzed with and without the DHSP projects to determine the potential traffic impacts of DHSP on traffic circulation system in the future. The year 2015 existing traffic volumes were updated by multiplying with a traffic growth factor to develop the estimated 2020 traffic volumes without the four transformative projects. The Los Angeles County Metropolitan Transportation Authority provides traffic growth factors for various areas within the Los Angeles County in its CMP publications. The 2010 CMP provides traffic growth factors for Hawthorne area (i.e., South Bay/LAX region) as 1.013 between 2010 and 2015, 1.026 between 2010 and 2020, and 1.053 between 2010 and 2035. Using these factors, the traffic growth in Hawthorne is estimated to be 0.26 percent per year for the years between 2015 and 2020.

The estimated trip generation from four Transformative Projects within the DHSP area are presented in **Table 3.2-7**, which is based on trip generation rates and guidelines provided in the Institute of Transportation Engineers (ITE) publication "Trip Generation", 9th edition. The table indicates that these four Transformative Projects will generate a total of 21,758 trips per day (10,879 trips inbound and 10,879 trips outbound), of which 1,193 trips will be generated during the AM peak hour (789 inbound and 404 outbound) and 1,077 trips will be generated during the PM peak hour (839 inbound and 1,138 outbound).

The LOS, V/C ratio (or ICU) for the study intersections under 2020 cumulative conditions (with project as well as without project) are summarized in **Figure 3.2-5 and Table 3.2-8**. As the results indicate, 7 of the 22 study intersections are expected to operate at an unacceptable LOS E or F during either the AM or PM peak hours (or both peak hours) under 2020 cumulative traffic conditions (with project). The increase in the V/C ratio at these intersections would exceed the threshold of ***significant*** impacts.

These intersections are:

- Prairie Ave. and 120th St.
- Hawthorne Blvd. and Imperial Hwy.
- Inglewood Ave. and Imperial Hwy.
- Inglewood Ave. and El Segundo Blvd.
- Inglewood Ave. and Rosecrans Ave.
- Prairie Ave. and El Segundo Blvd.
- Prairie Ave. and Imperial Hwy.

Since the project will ***significantly*** impact traffic conditions at these intersections, appropriate off-site traffic mitigation measures will be necessary for the development of the transformative projects to reduce impacts to a less than significant level.

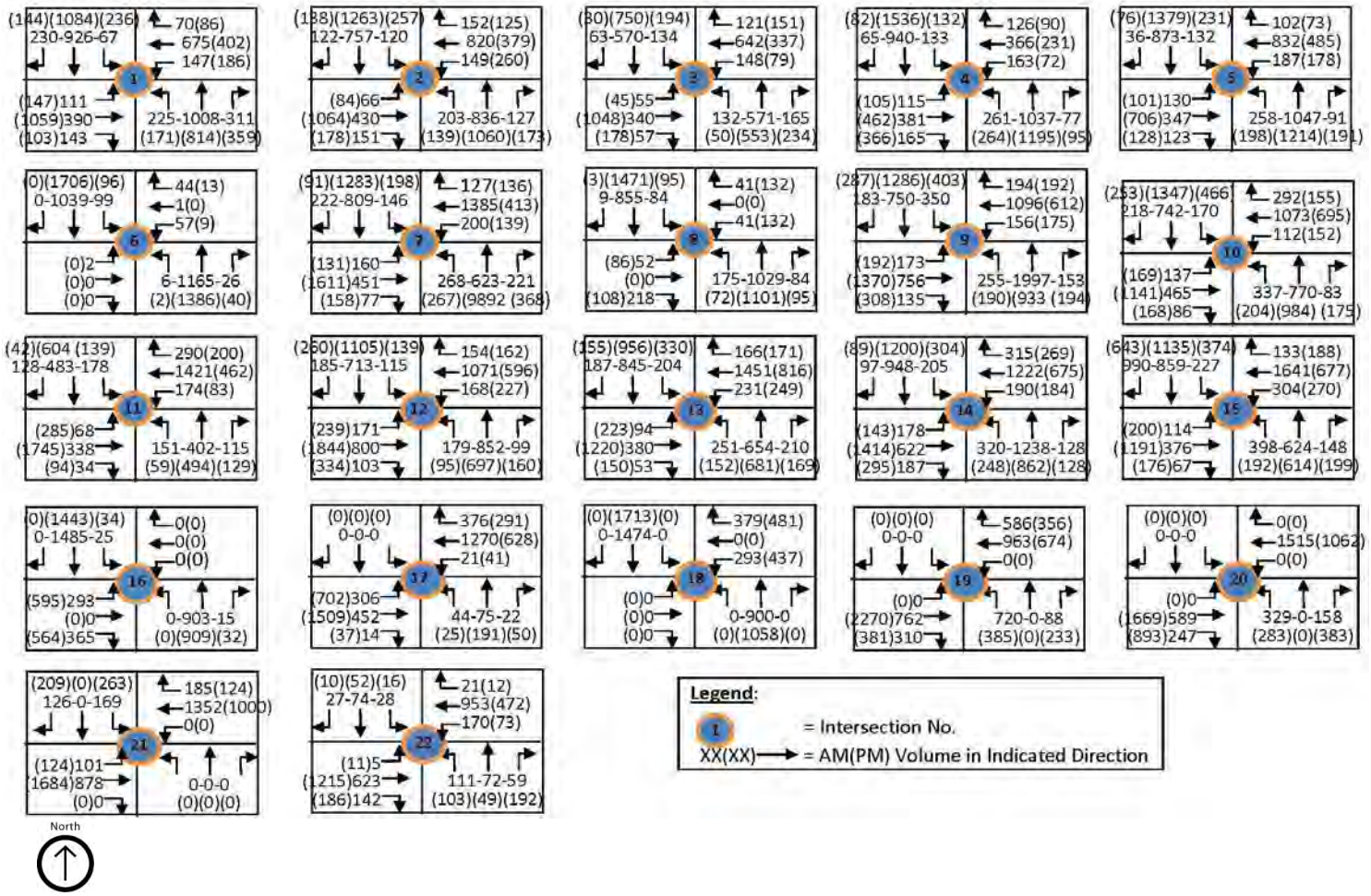
Table 3.2-7: Trip Generation by DHSP Development, 2020

ITE LU Code	Land Use	Units	Estimated Trip Generation						
			Daily	AM Total	AM In	AM Out	PM Total	PM In	PM out
Transformative Project T1-Hawthorne Mall									
230	Residential (Condo/Townhouse)	304 DU	1,766	134	23	111	158	106	52
252	Sen. Adult Housing	304 DU	1,058	24	11	13	33	20	13
820	Retail (Shop. Ctr.)	173 KSF	7,429	173	106	67	645	316	329
820	Retail Flex (Shop. Ctr.)	230 KSF	9,876	230	140	90	858	420	438
	Less: Pass-by Trips (20%)		3,461	81	49	31	301	147	153
760	Flex Space (R%D)	455 KSF	3,690	564	468	96	491	74	418
730	Gov't Office Bldg.	90 KSF	6,204	529	445	85	109	34	75
710	General Office	90 KSF	994	140	124	17	134	23	111
730	Less: Exist. Gov't Off.	-90 KSF	6,204	529	445	85	109	34	75
710	Less: General Office	-90 KSF	994	140	124	17	134	23	111
	Total		20,358	1,045	699	346	1,885	789	1,096
	Less: Internal Capture (20%)		4,072	209	140	69	377	158	219
	Net Total		16,286	836	559	277	1,508	631	877
Transformative Project T2- Civic Center									
820	Retail (Shopping Ctr.)	128.5 KSF	5,518	129	78	50	479	235	244
820	Less: Exist. Ret./Shop	49.5 KSF	2,126	50	30	19	185	90	94
	Less Pass-by Trips (20%)		678	16	10	6	59	29	30
710	Office	128.5 KSF	1,417	200	176	24	191	33	159
710	Less: Exist. Office	58.7 KSF	647	92	81	11	87	15	73
310	Hotel	300 Rm	2,451	168	102	66	168	89	79
730	Gov't Office	77 KSF	5,308	453	380	72	93	29	64
730	Less: Gov't Office	-77 KSF	5,308	453	380	72	93	29	64
210	Less: Exist S. Family	8	77	6	2	5	8	5	3
	Total		5,858	334	235	99	500	217	283
	Internal Capture (20%)		1,172	67	47	20	100	43	57
	Net Total		4,687	267	188	79	400	174	226
Transformative Project T3-South Bay Ford									
220	Apartment	55 DU	366	28	6	22	34	22	12
814	Specialty Retail	9.9 KSF	439	68	32	36	26	11	15
	Less: Pass-by (20%)		88	14	7	7	5	2	3
710	Office	9.9 KSF	109	15	14	2	15	3	12
	Total		826	98	45	52	70	34	36

Table 3.2-7 (Continue) : Trip Generation by DHSP Development, 2020

ITE LU Code	Land Use	Units	Estimated Trip Generation						
			Daily	AM Total	AM In	AM Out	PM Total	PM In	PM out
Transformative Project T5-St. Joseph's Plaza									
814	Specialty Retail	-1.8 KSF	-80	-12	-6	-6	-5	-2	-3
	Less: Pass-by (20%)		-16	-2	-1	-1	-1	0	-1
411	Park/Open Space	0.457 Ac.	23	2	1	1	3	1	1
	Total		-41	-8	-4	-4	-1	0	-1
Total Trip Generation			**21,758**	**1,193**	**789**	**404**	**1,977**	**839**	**1,138**

Source: Traffic Impact Study by Evan Brook Associates, November 2015



Downtown Hawthorne Specific Plan ***Draft EIR***	**Figure 3.2-5** **2020 Turning Movement Volumes** **AM and PM Peak**

Table 3.2-8: Future 2020 Intersection Level of Service With and Without Transformative Projects (Weekday)

Intersection	Peak Hour	Future 2020 Traffic Conditions				+/- V/C
		Without Projects		With Projects		
		V/C	LOS	V/C	LOS	
1. Prairies Ave. and 120th St.	AM	0.747	C	0.778	C	0.031
	PM	0.953	E	0.972	E	***0.019***
2. Hawthorne Blvd. and 120th St.	AM	0.610	B	0.655	B	0.045
	PM	0.788	C	0.890	D	0.102
3. Inglewood Ave. and 120th St.	AM	0.648	B	0.686	B	0.038
	PM	0.853	D	0.900	D	0.047
4. Hawthorne Blvd. and Lennox Blvd.	AM	0.715	C	0.721	C	0.006
	PM	0.815	D	0.822	D	0.007
5. Hawthorne Blvd. and Marine Ave.	AM	0.708	C	0.720	C	0.012
	PM	0.827	D	0.845	D	0.018
6. Hawthorne Blvd. and 139th St.	AM	0.410	A	0.475	A	0.065
	PM	0.414	A	0.471	A	0.057
7. Hawthorne Blvd. and Imperial Hwy.	AM	0.790	C	0.823	D	0.033
	PM	0.844	D	0.935	E	***0.091***
8. Hawthorne Blvd. and Broadway	AM	0.506	A	0.528	A	0.022
	PM	0.485	A	0.520	A	0.035
9. Hawthorne Blvd. and El Segundo Blvd.	AM	0.718	C	0.790	C	0.072
	PM	0.823	D	0.885	D	0.062
10. Hawthorne Blvd. and Rosecrans Ave.	AM	0.661	B	0.704	B	0.043
	PM	0.735	C	0.791	C	0.056
11. Inglewood Ave. and Imperial Hwy.	AM	0.850	D	0.862	D	0.012
	PM	0.895	D	0.930	E	***0.035***
12. Inglewood Ave. and El Segundo Blvd.	AM	0.814	C	0.855	D	0.041
	PM	0.958	E	1.110	F	***0.152***
13. Inglewood Ave. and Rosecrans Ave.	AM	0.877	D	0.882	D	0.005
	PM	0.931	E	0.981	E	***0.050***
14. Prairie Ave. and El Segundo Ave.	AM	0.879	D	0.900	D	0.021
	PM	0.891	D	0.943	E	***0.052***
15. Prairie Ave. and Imperial Hwy.	AM	1.188	F	1.226	F	***0.038***
	PM	0.854	D	0.898	D	***0.044***
16. Prairie Ave. and I-105 EB Off-ramp	AM	0.590	A	0.637	B	0.047
	PM	0.705	C	0.753	C	0.074
17. Imperial Hwy. and I-105 EB On-ramp	AM	0.616	B	0.644	B	0.028
	PM	0.847	D	0.887	D	0.040
18. Hawthorne Blvd. and I-105 WB Off-ramp	AM	0.470	A	0.514	D	0.044
	PM	0.605	B	0.641	B	0.036
19. El Segundo Blvd. and I-405 NB On/off-ramp	AM	0.703	B	0.716	C	0.013
	PM	0.680	B	0.719	C	0.039
20. El Segundo Blvd. and I-405 SB On/off-ramp	AM	0.522	A	0.530	A	0.008
	PM	0.782	C	0.809	D	0.027
21 Birch Ave. and El Segundo Blvd.	AM	0.518	A	0.589	A	0.013
	PM	0.722	C	0.791	C	0.039
22. Birch Ave. and 120th St.	AM	0.493	A	0.526	A	0.008
	PM	0.626	B	0.691	B	0.027

*Source: Traffic Impact Study by Evan Brook Associates, July 2015 Note: Italic and **Bold** indicate significant impacts*

Mitigation Measures 3.2-1

In order to mitigate traffic impacts at the identified intersections and area-wide circulation system, a number of transportation improvement measures should be considered for implementation to improve area-wide level of service to acceptable range of LOS D or better.

Specific Plan

The following is a list of site-specific mitigation measures to improve the 16 intersections to perform at LOS to D or better:

- **Prairie Av and 120th St.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 right-turn lane on the northbound approach, 1 right-turn lane on the southbound approach, 1 through lane and 1 right-turn lane on the eastbound approach, and 1 left-turn lane on the westbound approach. This will improve the intersection LOS from D (V/C ratio = 0.893) to LOS D (V/C ratio = 0.837) during the AM peak hour, and from LOS F (V/C ratio = 1.159) to LOS D (V/C ratio = 0.852) during the PM peak hour.
- **Hawthorne Bl and 120th St.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the southbound approach and 1 through lane on the eastbound approach. This will improve the intersection LOS from C (V/C ratio = 0.745) to LOS C (V/C ratio = 0.707) during the AM peak hour, and from LOS F (V/C ratio = 1.041) to LOS D (V/C ratio = 0.852) during the PM peak hour.
- **Inglewood Av and 120th St**. If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane and 1 right-turn lane on the eastbound approach. This will improve the intersection LOS from C (V/C ratio = 0.783) to LOS C (V/C ratio = 0.783) during the AM peak hour, and from LOS F (V/C ratio = 1.066) to LOS D (V/C ratio = 0.865) during the PM peak hour.
- **Hawthorne Bl and Lennox Bl**. If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 right-turn lane on the eastbound approach. This will improve the intersection LOS from D (V/C ratio = 0.830) to LOS D (V/C ratio = 0.830) during the AM peak hour, and from LOS E (V/C ratio = 0.979) to LOS D (V/C ratio = 0.865) during the PM peak hour.
- **Hawthorne Bl and Marine Av.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the eastbound approach and 1 left-turn lane on the westbound approach. This will improve the intersection LOS from D (V/C ratio = 0.826) to LOS D (V/C ratio = 0.826) during the AM peak hour, and from LOS F (V/C ratio = 1.005) to LOS D (V/C ratio = 0.839) during the PM peak hour.
- **Hawthorne Bl and Imperial Hwy.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the southbound approach, 1 through lane on the eastbound approach, and 1 left turn lane on the westbound approach. This will improve the intersection LOS from E (V/C ratio = 0.945) to LOS D (V/C ratio = 0.882) during the AM peak hour, and from LOS F (V/C ratio = 1.099) to LOS D (V/C ratio = 0.866) during the PM peak hour.

- **Hawthorne Bl and El Segundo Bl.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 right-turn lane on the northbound approach and 1 through lane and 1 right-turn lane on the eastbound approach. This will improve the intersection LOS from D (V/C ratio = 0.899) to LOS D (V/C ratio = 0.862) during the AM peak hour, and from LOS E (V/C ratio = 1.044) to LOS D (V/C ratio = 0.830) during the PM peak hour.
- **Hawthorne Bl and Rosecrans Av.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the eastbound approach. This will improve the intersection LOS from C (V/C ratio = 0.803) to LOS C (V/C ratio = 0.803) during the AM peak hour, and from LOS E (V/C ratio = 0.931) to LOS D (V/C ratio = 0.848) during the PM peak hour.
- **Inglewood Av and Imperial Hwy.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the northbound approach, 1 through lane on the eastbound approach, and 1 right-turn lane on the westbound approach. This will improve the intersection LOS from E (V/C ratio = 0.994) to LOS D (V/C ratio = 0.832) during the AM peak hour, and from LOS F (V/C ratio = 1.105) to LOS D (V/C ratio = 0.804) during the PM peak hour.
- **Inglewood Av and El Segundo Bl.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the northbound approach, 2 through lanes and 1 right-turn lane on the southbound approach, 1 through lane on the eastbound approach, and 1 left-turn lane on the westbound approach. This will improve the intersection LOS from E (V/C ratio = 0.981) to LOS D (V/C ratio = 0.840) during the AM peak hour, and from LOS F (V/C ratio = 1.299) to LOS D (V/C ratio = 0.860) during the PM peak hour.
- **Inglewood Av and Rosecrans Av.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the northbound approach, 1 through lane on the southbound approach, 1 through lane on the eastbound approach, and 1 left-turn lane and 1 through lane on the westbound approach. This will improve the intersection LOS from F (V/C ratio = 1.019) to LOS D (V/C ratio = 0.858) during the AM peak hour, and from F (V/C ratio = 1.164) to LOS D (V/C ratio = 0.879) during the PM peak hour.
- **Prairie Av and El Segundo Bl.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 left-turn lane and 1 right-turn lane on the northbound approach, 1 left-turn lane and 1 through lane on the southbound approach, 1 right-turn lane on the eastbound approach, and 1 right-turn lane on the westbound approach. This will improve the intersection LOS from F (V/C ratio = 1.035) to LOS D (V/C ratio = 0.857) during the AM peak hour, and from F (V/C ratio = 1.117) to LOS D (V/C ratio = 0.880) during the PM peak hour.
- **Prairie Av and Imperial Hwy.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 right-turn lane on the southbound approach, 1 through lane on the eastbound approach, and 1 left-turn lane and 1 through lane on the westbound approach. This will improve the intersection LOS from F (V/C ratio = 1.419) to LOS D (V/C ratio = 0.882) during the AM peak hour, and from F (V/C ratio = 1.064) to LOS D (V/C ratio = 0.843) during the PM peak hour.

- **Imperial Hwy and I-105 EB On-ramp.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 left-turn lane on the eastbound approach. This will improve the intersection LOS from C (V/C ratio = 0.735) to LOS B (V/C ratio = 0.636) during the AM peak hour, and from LOS F (V/C ratio = 1.052) to LOS D (V/C ratio = 0.818) during the PM peak hour.
- **El Segundo Bl and I-405 SB On-off-ramp.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 right-turn lane on the eastbound approach. This will improve the intersection LOS from A (V/C ratio = 0.604) to LOS A (V/C ratio = 0.604) during the AM peak hour, and from LOS E (V/C ratio = 0.959) to LOS D (V/C ratio = 0.806) during the PM peak hour.
- **Birch Ave and El Segundo Bl.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 left-turn only lane and 1 right-turn lane on the southbound approach. This will improve the intersection LOS from B (V/C ratio = 0.686) to LOS B (V/C ratio = 0.631) during the AM peak hour, and from E (V/C ratio = 0.925) to LOS D (V/C ratio = 0.838) during the PM peak hour.

Transformative Projects

The following mitigation measures are identified to improve these intersections to perform at LOS to D or better:

- **Prairie Av and 120th St.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the eastbound approach. This will improve the intersection LOS from C (V/C ratio = 0.778) to LOS C (V/C ratio = 0.778) during the AM peak hour, and from LOS E (V/C ratio = 0.972) to LOS D (V/C ratio = 0.850) during the PM peak hour.
- **Hawthorne Bl and Imperial Hwy.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the eastbound approach. This will improve the intersection LOS from D (V/C ratio = 0.823) to LOS D (V/C ratio = 0.823) during the AM peak hour, and from LOS E (V/C ratio = 0.935) to LOS D (V/C ratio = 0.843) during the PM peak hour.
- **Inglewood Av and Imperial Hwy.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the eastbound approach. This will improve the intersection LOS from D (V/C ratio = 0.862) to LOS D (V/C ratio = 0.862) during the AM peak hour, and from LOS E (V/C ratio = 0.930) to LOS D (V/C ratio = 0.835) during the PM peak hour.
- **Inglewood Av and El Segundo Bl.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane and 1 right-turn lane on the southbound approach and 1 through lane on the eastbound approach. This will improve the intersection LOS from D (V/C ratio = 0.855) to LOS D (V/C ratio = 0.831) during the AM peak hour, and from LOS F (V/C ratio = 1.110) to LOS D (V/C ratio = 0.883) during the PM peak hour.

- **Inglewood Av and Rosecrans Av.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 through lane on the northbound approach and 1 through lane on the eastbound approach. This will improve the intersection LOS from D (V/C ratio = 0.882) to LOS D (V/C ratio = 0.882) during the AM peak hour, and from LOS E (V/C ratio = 0.981) to LOS D (V/C ratio = 0.840) during the PM peak hour.
- **Prairie Av and El Segundo Bl.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 right-turn lane on the eastbound approach and 1 right-turn lane on the westbound approach. This will improve the intersection LOS from D (V/C ratio = 0.900) to LOS D (V/C ratio = 0.834) during the AM peak hour, and from LOS E (V/C ratio = 0.943) to LOS D (V/C ratio = 0.882) during the PM peak hour.
- **Prairie Av and Imperial Hwy.** If right-of-way is available or acquiring additional right-of-way is feasible, provide 1 right-turn lane on the southbound approach. This will improve the intersection LOS from F (V/C ratio = 1.226) to LOS D (V/C ratio = 0.858) during the AM peak hour, and from LOS D (V/C ratio = 0.898) to LOS D (V/C ratio = 0.857) during the PM peak hour.

Citywide

In order to mitigate traffic impacts at the identified intersections if right-of-way is not available or acquiring additional right-of-way is not feasible for implementing site-specific mitigation measures identified above, and to further improve area-wide circulation system, a number of transportation improvement measure should be considered for implementation. The following is a list of mitigation measures that can be implemented in phases through 2035 for the DHSP and 2020 for the Transformative Projects.

- **Signal Synchronization and Signal Timing.** All the traffic signals along major arterials shall be interconnected so that a coordinated signal timing plan can be implemented to minimize vehicle stopped delay and traffic congestion. Most of the major arterials in Los Angeles County are already under the County's Traffic Signal Synchronization System (TSSP) and others are in the process of implementation by the County. This strategy will greatly enhance area-wide mobility and efficiency in traffic circulation through arterial intersections when fully completed.
- **Automated Traffic Surveillance and Control and Adaptive Traffic Control.** Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control (ATC) systems are based on a comprehensive monitoring of traffic and circulation of area streets and intersections from a centralized location, usually a Transportation Management Center (TMC) at the City Hall, using video cameras and sensors located at various key locations. The ATSAC system allows City's traffic engineers to observe and adjust signal timing at the intersections based on real-time traffic demands at various approaches for various movements. The ATC system provides real-time advisories and guidance to motorists through various changeable message signs (CMS) located at key arterial locations upstream of congested intersections. These systems are extensively in use in the City of Los Angeles and have been considered as effective mitigation of traffic impacts, reducing intersection V/C ratio by 0.07 with ATSAC

system and by 0.03 with ATC system. When used in combination, these mitigation measures can reduce V/C ratio by a total of 0.10, thereby significantly improving circulation conditions.

- **Single or Dual Left-turn and/or Right-turn lanes at Intersection Approaches.** Many of the major intersections currently provide single or dual left-turn and/or right-turn lane(s) at major street approaches. These intersections as well as other intersections can be further evaluated to determine if any additional turn movement lanes need to be added. If needed, additional lanes can be restriped within existing pavement widths by reducing through lane width to as low as 10 or 11 feet.

- **Carpooling/Rideshare Programs.** The Los Angeles County Metropolitan Transportation Authority and other transportation agencies in the region offer rideshare services to area employers. Metro Commute Services, funded and implemented by MTA, has offered rideshare services to area employers since 2002. Metro Commute Services provides carpool/vanpool match lists, and additional survey data services to calculate employer work site average vehicle ridership for rideshare option.

  Employers who are committed to promoting ridesharing at their work sites and provide rideshare incentives to employees through Metro Commute Services programs are eligible to participate in Metro Rewards and the Guaranteed Ride Home Program. Metro Rewards[1], initiated in 2000, provides a nominal financial reward for employees that commit to rideshare. The Guaranteed Ride Home Program, initiated in 2006, provides a taxi ride or rental car to ridesharing employees in emergency situations, such as unexpected illnesses or unscheduled overtime.

  Various vanpool programs have been undertaken in recent years by several agencies. The Metro Vanpool Program, administered by MTA, is a special incentive program designed to introduce commuters to vanpooling. Eligible commuters receive a vanpool lease subsidy of up to $400 per month, not to exceed 50 percent of the monthly lease costs for commuter vanpools of 7-15 passengers in return for reporting vanpool operating data and making the vanpool open to the public.

- **Shuttle Service to and from Peripheral Parking Lots.** Large employers and shopping center operators can provide their employees, visitors, or patrons free shuttle service to and from peripheral parking lots, metro green line stations, and other transit stops in order to reduce vehicular trips in and around adjacent circulation system and help mitigate traffic impacts and congestion. Hotels can also provide similar service for their guests to and from Los Angeles International Airport and other regional airports.

- **Incentives to Increase Transit Ridership.** Encouraging ridership on transit is an important strategy for reducing vehicular trips on circulation system. The following services are particularly useful because they increase the potential for commuters to ride transit:

  a) *EZ Transit Pass:* The EZ transit pass encourages greater transit ridership by providing the ability for transit patrons to use different transit services with only one pass. It allows

[1] *Metro Rewards was originally named Rideshare 2000, before being renamed in 2002.*

riders to transfer from one transit system to another without worrying about transfer payments or fare differentials.

b) *Transit Access Pass (TAP):* The EZ transit pass and all other paper passes have been transitioning to a universal fare system known as TAP. TAP is a plastic "smart card" that can be used month after month to pay fares. Users simply tap their cards on the bus/rail fare box and a "beep" alert verifies that the cards are valid. Like the EZ transit pass, TAP is used for transfers among different transit systems.

c) *Employer-based transit fare subsidies:* Employers and transit agencies encourage transit use throughout the county with pre-paid fare media. Employers have a choice among several programs that are part of Metro Commute Services. Two of these programs include MTA Annual Transit Access Pass (A-TAP) and Metro Business Transit Access Pass (B-TAP). A-TAP allows employers to buy and distribute annual transit passes to employees who take transit. B-TAP allows employers to purchase annual transit passes at a discounted group rate for all worksite employees. Another program for employers is Metro Mail. Through Metro Mail employers can encourage transit use by ordering monthly passes for employees. Employers also have the option of requesting a weekly pass for newly hired employees. In addition to directly encouraging transit use, participating in any of these programs also makes employers eligible to participate in Metro Rewards and the Regional Guaranteed Ride Home.

d) *Group College Pass Program:* MTA provides transit passes at discounted group rates for colleges in Los Angeles County to distribute at a discounted price to students.

e) *Commuter Benefits:* Federal IRS tax code 132 (f) contains tax breaks available for subsidizing transit and vanpooling for employees. Participating employers can offer pre-tax dollars to employees who ride transit or join a vanpool. Once a year MTA holds a workshop with employers to encourage and help them implement this program. The Commuter Benefits program was recently expanded to include benefits for employees who bicycle to work

- **Bicycle Facilities and Other Non-motorized Transportation.** Continue to implement the City of Hawthorne's Bicycle Transportation Plan, including the second bicycle corridor improvement along El Segundo Boulevard from Crenshaw Boulevard to Hawthorne Boulevard and then to the City's western boundary at El Segundo Boulevard and the I-405 Freeway. This will connect with the Hawthorne Boulevard Bike Lane to create a network of over four miles of bicycle corridors throughout Hawthorne. The recent bike corridor improvements and proposed improvements will allow total bicycle access through the City of Hawthorne in all four cardinal directions. These projects will increase bicycle ridership and are an essential component of the City's efforts to increase overall multi-modal transportation opportunities.

  The City can use many other types of lanes, roadway markings, and intersection treatments to make the bicycle network more safe, comfortable, and convenient. Some of these bicycle facilities are described below:

a) Bicycle Path:

Bicycle paths are off-street paved bikeways. They are separated from vehicle traffic, but may be shared with pedestrians.

b) Bicycle Lane:

Bicycle lanes are marked on-street lanes for bicycle travel. Those riding in a bike lane should always be aware of driveways, mixing zones, car doors and vehicles such as taxis or paratransit that may temporarily occupy the lane.

c) Separated Bikeway:

Separated bikeways are bicycle facilities that are separated from traffic by parked cars, safe-hit posts, or painted buffer zones. Always be considerate of slower-moving bicyclists.

d) Shared Lane:

Shared lanes are typically wide travel lanes shared by bicyclists and vehicles. They are commonly marked with sharrows and signs. Those riding a bike should make sure to stay out of car's door zone.

e) Green Bike lane:

Enhanced green bike lanes and other green road treatments are meant to guide bicyclists, increase visibility, and alert motorists of bicycle facilities.

f) Sharrows:

Sharrows, or Shared Roadway Bicycle Markings, are placed outside the door zone in shared lanes to show both bicyclists and motorists where bicyclists should ride and assist with wayfinding.

g) Greenback Sharrows:

Greenback sharrows are there to guide bicyclists through intersections. Those riding bikes should follow them carefully across turning lanes or through mixing zones.

h) Dashed Green Bicycle Lanes:

Dashed green bicycle lanes indicate areas where cars and bicycles merge. Those driving cars and riding a bike should go slow, watch out and share the road.

- **Wayfinding Signage to Transit Stations, Bus Stops, and Parking Facilities.** An integrated system of wayfinding signage along major streets in the downtown areas for transit stations, bus stops, parking facilities, shopping centers, civic centers, community centers, public parks, libraries, and other attraction facilities can help commuters and area visitors who are less familiar with the surroundings find their destinations easily without additional travel needs along adjacent streets. This can greatly reduce traffic congestion and delays through major intersections.
- **Transportation Demand Management (TDM) at large Non-residential Developments.** The County of Los Angeles' 2010 Congestion Management Program (CMP) Transportation Demand Management (TDM) ordinance (adopted by all 88 cities in the County, including the City of Hawthorne) requires all new non-residential developments in excess of 25,000 square feet to implement on-site programs to reduce drive-alone trips and encourage alternate modes of transportation. The measures required for projects exceeding 25,000 square feet but less than 50,000 square feet include providing an on-site transportation information area. Therefore, the project will be required to implement TDM measures in the form of a transportation information area as a part of project development. The information area

should be located where the greatest number of employees are likely to see it, and it should include a bulletin board, display case, or kiosk displaying transportation information, e.g.

a) Current maps, routes and schedule for public transit routes serving the site

b) Telephone numbers of referrals on transportation information, including numbers for the regional ridesharing agency and local transit operators

c) Ridesharing promotional material supplied by commuter-oriented organizations

d) Bicycle route and facility information, including regional/local bicycle maps and bicycle safety information, and

e) A listing of facilities available for carpoolers, vanpoolers, bicyclists, transit riders and pedestrians at the site.

Measures required for projects exceeding 50,000 square feet but less than 100,000 square feet include providing an on-site transportation information area, and the following:

a) Preferential Carpool/Vanpool Parking

b) Parking Designed to Admit Vanpools, and

c) Bicycle Parking

Measures required for projects exceeding 100,000 square feet include providing an on-site transportation information area, preferential carpool/vanpool parking, parking designed to admit vanpools, bicycle parking, and the following:

a) Carpool/Vanpool Loading Zones

b) Efficient Pedestrian Access

c) Bus Stop Improvements, and

d) Safe Bike Access from Street to Bicycle Parking

Additionally, all residential and non-residential projects subject to an EIR are required to conduct a transit review for the site in order to encourage residents and patrons to take full advantage of available transit services.

Level of Impact After Implementation of Mitigation Measure 3.2-1

The residual impact following implementation of all the recommended Mitigation Measures for 3.2-1 would be ***less than significant***; however, if only a limit number of mitigation measures can be implemented in the short-term because the identified right-of-ways are not available or acquiring additional right-of-ways are not feasible, then Impact 3.2-1 would be considered a ***significant and unavoidable impact.***

Impact 3.2-2 Congestion Management Program Analysis

Specific Plan

The Los Angeles County Metropolitan Transportation Authority, Congestion Management Program requires analysis of all CMP arterial monitoring intersections in the project vicinity, including monitored freeway on-ramps or off-ramps, where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours. Where project definition is insufficient for meaningful intersection level of service analysis, CMP arterial segment analysis may substitute for intersection analysis. If CMP arterial segments are being analyzed rather than intersections, the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.

The CMP also requires an analysis of nearby mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

For purposes of the CMP, a significant impact occurs when the proposed Plan increases traffic demand on a CMP facility by two percent of capacity (V/C ≥.0.02), causing LOS F (V/C > 1.00); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by two percent of capacity (V/C ≥ 0.02).

Although there are no CMP arterial monitoring intersection within the City of Hawthorne, a total of five freeway on-ramp and off-ramp intersections of I-105 and I-405 in vicinity of DHSP project area were analyzed using project related traffic volumes distributed on to these freeway on- and off-ramps. These are:

- I-105 Freeway EB Off-ramp at Prairie Avenue
- I-105 Freeway EB On-ramp at Imperial Highway
- I-105 Freeway WB Off-ramp at Hawthorne Boulevard
- I-405 Freeway NB On/Off-ramps at El Segundo Boulevard
- I-405 Freeway SB On/Off-ramps at El Segundo Boulevard

The project traffic distribution indicates there will be a maximum of 67 trips on I-105 Freeway during the peak hours in any direction on the east and west of Hawthorne Boulevard. Also, there will be a maximum of 61 trips on I-405 Freeway during the peak hours in any direction on the north and south of El Segundo Boulevard. These project traffic volumes are less than 150 trips threshold of freeway monitoring location analysis requirement per MTA's CMP guidelines. Thus, no freeway monitoring location needs to be analyzed in this EIR, and this is considered a ***less than significant*** impact.

Transformative Projects

Impacts of the four Transformative Projects are the same as those found for the Plan area. Therefore, no freeway monitoring location needs to be analyzed in this EIR. This is considered a ***less than significant*** impact.

Mitigation Measure 3.2-2

No mitigation measures are required.

Level of Impact After Implementation of Mitigation Measure 3.2-2

The residual impact following implementation of the recommended Mitigation Measures for 3.2-2 would remain ***less than significant***.

Impact 3.2-3 Caltrans Freeway Segment Analysis

Specific Plan

California State Department of Transportation requires a freeway/State Highway impact analysis, utilizing Caltrans' "Guide for the Preparation of Traffic Impact Studies", for land use proposals that meet any of the following criteria:

- The project's peak hour trips would result in a 1-percent or more increase to the capacity of a freeway mainline segment operating at LOS E or F (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project's peak hour trips would result in a 2-percent or more increase to the capacity of a freeway mainline segment operating at LOS D (based on an assumed capacity of 2,000 vehicles per hour per lane); or
- The project's peak hour trips would result in a 1-percent or more increase to the capacity of a freeway off-ramp operating at LOS E or F (based on an assumed ramp capacity of 1,500 vehicles per hour per lane); or
- The project's peak hour trips would result in a 2-percent or more increase to the capacity of a freeway off-ramp operating at LOS D (based on an assumed ramp capacity of 1,500 vehicles per hour per lane).

A freeway segment evaluation was conducted using Caltrans procedures to determine if freeway segment impact analysis is required for the project. A total of four mainline freeway segments of I-105 and I-405 in vicinity of DHSP area were evaluated using project-related traffic volumes distributed on to these freeway segments. These segments are:

- I-105 Freeway E/O Hawthorne Boulevard (both Eastbound and Westbound directions)
- I-105 Freeway W/O Hawthorne Boulevard (both Eastbound and Westbound directions)
- I-405 Freeway N/O El Segundo Boulevard (both Northbound and Southbound directions)
- I-405 Freeway S/O El Segundo Boulevard (both Northbound and Southbound directions)

The number of lanes on I-105 Freeway is 4 per direction for both segments, east and west of Hawthorne Boulevard. The capacity of a freeway lane is 2,000 vehicles per hour; therefore, the capacity of these freeway segments is 8,000 vehicles per hour for both directions. The number of lanes on I-405 Freeway is 5 per direction for both segments, north and south of El Segundo Boulevard. The capacity of these freeway segments is 10,000 vehicles per hour for both directions.

The existing I-105 Freeway as well as I-405 Freeway segments in the study area are operating at LOS F under the worst case scenario. The criteria for impact analysis of a freeway segment are defined as increase in trips due to a project by one percent or more of capacity (i. e. 80 trips for I-105 and 100 trips for I-405 segments) at LOS E or F. As shown in the table, the project will add a maximum of 64 trips during peak hours to I-105 Freeway traffic volume, less than the threshold for necessary impact analysis. Similarly, the project will add a maximum of 61 trips to I-405 Freeway traffic volume during the peak hours. Therefore, the freeway segment impact analysis per Caltrans methodology is not required. In other words, the project traffic would have ***less than significant*** impacts on the I-105 or I-405 Freeway segments in the study area.

The following **Table 3.2-9** shows the results of this determination for freeway segment:

Table 3.2-9: Caltrans Freeway Segment Analysis

Location	Peak Hour	Project Trips		Freeway Mainline Capacity		Caltrans 1% Criteria for Impact Analysis		Freeway Impact Analysis Required?
		WB/NB	EB/SB	WB/NB	EB/SB	WB/NB	EB/SB	
I-105 Freeway E/O Hawthorne Blvd.	AM	59	24	8,000	8,000	80	80	No
	PM	47	64	8,000	8,000	80	80	No
I-105 Freeway W/O Hawthorne Blvd.	AM	24	62	8,000	8,000	80	80	No
	PM	64	63	8,000	8,000	80	80	No
I-405 Freeway N/O El Segundo Blvd.	AM	21	40	10,000	10,000	100	100	No
	PM	57	42	10,000	10,000	100	100	No
I-405 Freeway S/O El Segundo Blvd.	AM	40	20	10,000	10,000	100	100	No
	PM	42	66	10,000	10,000	100	100	No

Source: Traffic Impact Study by Evan Brook Associates, December 2015

Transformative Projects

Impacts of the four Transformative Projects are the same as those found for the Specific Plan area, and therefore, this is considered a ***less than significant*** impact.

Mitigation Measure 3.2-3

No mitigation measures are required

Level of Impact After Implementation of Mitigation Measure 3.2-3

The residual impact following implementation of the recommended Mitigation Measures for 3.2-3 would remain ***less than significant***.

Impact 3.2-4 Caltrans Freeway Off-Ramp Analysis

Specific Plan

A freeway off-ramp evaluation was conducted using Caltrans procedures to determine if freeway off-ramp impact analysis is required for the project. A total of four freeway off-ramps of I-105 and I-405 in the vicinity of the DHSP project area were evaluated using project related traffic volumes distributed on to these freeway off-ramps. These off-ramps are:

- I-105 Freeway EB Off-ramp at Prairie Avenue
- I-105 Freeway WB Off-ramp at Hawthorne Boulevard
- I-405 Freeway NB Off-ramp at El Segundo Boulevard
- I-405 Freeway SB Off-ramp at El Segundo Boulevard

The number of lanes on I-105 Freeway Eastbound Off-ramp at Prairie Avenue as well as that on I-105 Freeway Westbound Off-ramp at Hawthorne Boulevard is three. The capacity of a freeway off-ramp lane is 1,500 vehicles per hour; therefore, the capacity of these freeway off-ramps is 4,500 vehicles per hour.

Similarly, the number of lanes on I-405 Freeway Northbound Off-ramp at El Segundo Boulevard and that on I-405 Freeway Southbound Off-ramp at El Segundo Boulevard is three and two, respectively. Therefore, the capacity of these freeway off-ramps are 4,500 and 3,000 vehicles per hour, respectively.

The following **Table 3.2-10** shows the results of this determination for freeway off-ramps:

Table 3.2-10: Freeway Off-Ramp Analysis

Location	Peak Hour	Project Trips	Freeway Off-ramp Capacity	Caltrans 1% Criteria for Impact Analysis	Caltrans 2% Criteria for Impact Analysis	Further Off-ramp Analysis Required?
I-105 Freeway EB Off-ramp at Prairie Ave	AM	62	4,500	45	90	No
	PM	63	4,500	45	90	No
I-105 Freeway WB Off-ramp at Hawthorne Blvd	AM	59	4,500	45	90	No
	PM	47	4,500	45	90	No
I-405 Freeway NB Off-ramp at El Segundo Blvd	AM	40	4,500	45	90	No
	PM	42	4,500	45	90	No
I-405 Freeway SB Off-ramp at El Segundo Blvd	AM	40	3,000	30	60	No
	PM	42	3,000	30	60	No

The criteria for impact analysis of a freeway off-ramp are defined as increase in peak hour trips due to project by one percent or more of off-ramp capacity at LOS E or F, and two percent or more of capacity at LOS D. **Table 3.2-11** shows that the I-105 Freeway off-ramps at Prairie Avenue as well as at Hawthorne Boulevard are operating at LOS A. Similarly, the I-405 Freeway off-ramps at El Segundo Boulevard are operating at LOS A. The level of service of these off-ramps under 2020 traffic conditions with DHSP projects are shown in the following:

Table 3.2-11: Freeway Off-Ramp Analysis Level of Service

Off-ramp	Peak Hour	Existing 2015 Volume	2020 W/ Growth	DHSP Added Volume	2020 W/ DHSP	DHSP % in 2020	Off-Ramp Capacity	2020 V/C Ratio	2020 LOS
I-105 EB Off-Ramp at Prairie Ave	AM	588	596	62	658	7.70%	4,500	0.14	A
	PM	1,082	1096	63	1,159	5.75%	4,500	0.26	A
I-105 WB Off-Ramp at Hawthorne Blvd	AM	606	614	58	673	6.97%	4,500	0.15	A
	PM	860	871	47	918	5.39%	4,500	0.20	A
I-405 NB Off-Ramp at El Segundo Blvd	AM	758	768	40	808	4.01%	4,500	0.18	A
	PM	568	575	42	618	7.31%	4,500	0.14	A
I-405 SB Off-Ramp at El Segundo Blvd	AM	441	447	40	479	6.70%	3,000	0.16	A
	PM	615	623	42	668	6.79%	3,000	0.22	A

The impact thresholds are 90 trips at two percent of ramp capacity for the off-ramps of I-105 Freeway at Prairie Avenue and at Hawthorne Boulevard as well as for the off-ramps of I-405 Freeway at El Segundo Boulevard. The project will add a maximum of 63 trips during the peak hours to these off-ramps of I-105 and I-405 Freeways. Similarly, the impact thresholds are 60 trips at two percent of ramp capacity for the southbound off-ramp of I-405 freeway at El Segundo Boulevard. The project will add a maximum of 42 trips during the peak hours to this off-ramp of I-405 Freeway. These off-ramp volumes from the project do not exceed the criteria for further off-ramp analysis. Therefore, the freeway off-ramp impact analysis per Caltrans methodology is not required. In other words, the project traffic would have ***less than significant*** impacts on the I-105 and I-405 Freeway off-ramps in the Plan area.

Transformative Projects

Impacts of the four Transformative Projects are the same as those found for the Specific Plan area, and therefore, this is considered a ***less than significant*** impact.

Mitigation Measure 3.2-4

No mitigation measures are required

Level of Impact After Implementation of Mitigation Measure 3.2-4

The residual impact following implementation of the recommended Mitigation Measures for 3.2-4 would remain ***less than significant***.

Impact 3.2-5 - Parking Analysis

Specific Plan

The implementation of the DHSP will adequately provide on-site parking to satisfy parking needs for various land uses. Parking will be provided with either on surface parking lots or parking structures for each development project within the Plan area by the year 2035 and for the four Transformative Projects by the year 2020. Based on specific land use square footage or dwelling units within each development project site, parking demand or the number of parking spaces needed for the entire site will be calculated using City of Hawthorne's parking codes. For uses which have peak parking demands during different hours of the day (e.g., residential, retail, office, entertainment, etc.) the methodology of shared parking will be used to determine maximum number of parking spaces needed for the site under a shared parking agreement between the various uses. The site plan and internal circulation system for each development project, including the Transformative Projects, will be prepared to accommodate parking needs. This will include the need for the adequate number of ADA spaces, carpool and vanpool spaces, passenger drop-off/pick-up areas, transit stops, commercial loading zones, and bike racks.

Transformative Projects

Impacts of the four Transformative Projects are the same as those found for the Specific Plan area, and therefore, this is considered a ***less than significant*** impact.

Mitigation Measure 3.2-5

No mitigation measures are required

Level of Impact After Implementation of Mitigation Measure 3.2-5

The residual impact following implementation of the recommended Mitigation Measures for 3.2-5 would remain ***less than significant***.

Impact 3.2-6 Alternative Transportation

Specific Plan

The DHSP includes the following two key strategies related to alternative transportation:

- **Walkable and Bikeable Downtown.** To enhance the pedestrian and bicycle network within Downtown in order to expand connectivity, improve safety and foster better access. This includes strategies to create a Complete Street network of automobiles, bicycles, transit and pedestrian circulation. This includes:
  - Implementing the Bicycle Facilities Plan with: (a) Class I Cycle Tracks along Hawthorne Boulevard between el Segundo Boulevard and the Hawthorne/Lennox Green Line Station, and along Imperial Highway through Downtown Hawthorne; (b) Class II Bike Lanes along Hawthorne Boulevard between El Segundo and Rosecrans Boulevards, and other large roadways; and (c) end-of-trip bicycle facilities at public buildings (e.g., bike racks, lockers, storage units, shower facilities, etc.)

- Applying pedestrian-oriented, context-sensitive design solutions to all new public streetscape improvements.
- Improving pedestrian crossings at major intersections with higher viability crosswalks, ADA compliant curbs cuts and signals.
- Improving sidewalk landscaping.
- Securing improvement district funding options to support capital improvement costs and on ongoing maintenance.

- **Enhanced Transit.** To improve the experience for transit riders through enhanced amenities, access, safety, and landscaping. This includes:
  - Encouraging transit station and bus stop enhancements.
  - Working with Metro to improve bus stop seating, shading, and signage at each stop.
  - Designing and installing attractive, functional, and fun bus stops.
  - Integrating the transit system with alternative modes of transportation, particularly walking and biking.
  - Encouraging Metro to improve light rail system efficiency and access.

Implementation of these strategies identified in the DHSP will encourage the use of alternative transportation and be a ***benefit*** to the Plan area.

Transformative Projects

The strategies with the DHSP also apply to the four Transformative Projects, and therefore are considered a ***benefit*** to the Transformative Project area.

Mitigation Measure 3.2-6

No mitigation measures are required.

Level of Impact After Implementation of Mitigation Measure 3.2-6

No mitigation measures are required.

Unavoidable Significant Adverse Impact(s)

Traffic impacts will have Less Than Significant impacts on the levels of service at the identified intersections and area-wide circulation system with the implementation of the mitigation measures. However, if only a limit number of mitigation measure can be implemented in the short-term because the identified right-of-ways are not available or acquiring additional right-of-ways are not feasible, then Impact 3.2-1 would be considered a ***significant and unavoidable impact.***

3.3 Air Quality and Greenhouse Gas

This section describes the existing air quality and greenhouse gas (GHG) emissions within the DHSP area, and the future emissions anticipated as a result of the implementation of the Specific Plan. Existing conditions and the air quality/greenhouse gas emissions analyses were prepared by Kunzman Associates, Inc. using the California Emissions Estimator Model (CalEEMod) to establish quantitative measurements of the amount of air emissions produced, including greenhouse gasses (GHG) that may have direct or indirect impacts on the environment. Both Air Quality and Global Climate Change and Impact Analysis report and the results of the CalEEMod are presented as **Appendix C.**

A. AIR QUALITY

Environmental Setting

The project site is located within the City of Hawthorne, in the southwestern portion of Los Angeles County, which is part of the South Coast Air Basin (SCAB) that includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The South Coast Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the South Coast Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

Climate and Meteorology

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows. The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.

The annual average temperature varies little throughout much of the basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas where the project site is located. The majority of the annual rainfall in the basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunderstorms in the coastal regions and slightly heavier showers in the eastern portion of the basin along the coastal side

of the mountains. Year-to-year patterns in rainfall are unpredictable because of fluctuations in the weather.

Temperature inversions limit the vertical depth through which pollution can be mixed. Among the most common temperature inversions in the basin are radiation inversions, which form on clear winter nights when cold air off mountains sink to the valley floor while the air aloft over the valley remains warm. These inversions, in conjunction with calm winds, trap pollutants near the source. Other types of temperature inversions that affect the basin include marine, subsidence, and high-pressure inversions.

Summers are often periods of hazy visibility and occasionally unhealthful air. Strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloud.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the City of Torrance (closest City to the Hawthorne with available data) are shown below in **Table 3.3-1.** As shown in the table, August is typically the warmest month and December is typically the coolest month. Rainfall in the vicinity of the DHSP area varies considerably. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 3.3-1: Monthly Climate Data

Descriptor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temperature	65.9	66.5	67.4	69.6	71.6	73.8	77.6	78.6	78.0	75.4	71.5	66.9
Avg. Min. Temperature	44.3	45.8	47.4	49.9	53.5	56.7	60.2	61.1	59.5	55.4	48.9	45.0
Avg. Total Precipitation (in.)	3.04	3.23	2.03	0.84	0.18	0.06	0.02	0.06	0.22	0.42	1.31	2.15

Climate date is for the City Torrance, which is the nearest data source to Hawthorne
http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca8973

Criteria Pollutants

Pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

The criteria pollutants consist of: nitrogen dioxide, ozone, carbon monoxide, sulfur dioxide, lead, and particulate matter. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants and related pollutants of concern.

Nitrogen Dioxide. Nitrogen Oxides (NOx) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NOx are colorless and odorless, concentrations of nitrogen dioxide (NO_2) can often be seen as a reddish-brown layer over many urban areas. NOx form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NOx are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NOx reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which cause respiratory problems. NOx and the pollutants formed from NOx can be transported over long distances, following the patterns of prevailing winds. Therefore controlling NOx is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone. Ozone (O_3) is not usually emitted directly into the air but at ground-level is created by a chemical reaction between NOx and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NOx and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NOx and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NOx and VOC emissions.

Carbon Monoxide. Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during

the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

Sulfur Dioxide. Sulfur Oxide (SOx) gases (including SO_2) are formed when fuel containing sulfur, such as coal and oil is burned, and from the refining of gasoline. SOx dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

Lead. Lead is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants and children to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Particulate Matter. Particulate matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Particulate matter is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

Volatile Organic Compounds. Although not a criteria pollutant, reactive organic gases (ROG), or volatile organic compounds (VOC), are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight

differences in the definition of ROGs and VOCs, the two terms are often used interchangeably. Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.

Other Pollutants of Concern

Toxic Air Contaminants. In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important of these toxic air contaminants, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to toxic air contaminants can result from emissions from normal operations as well as from accidental releases. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

Toxic air contaminants are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of toxic air contaminants with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to the 2005 California Almanac of Emissions and Air Quality, the majority of the estimated health risk from toxic air contaminants can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). Diesel particulate matter is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The identification of diesel particulate matter as a toxic air contaminant in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in diesel particulate matter by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of diesel particulate matter as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to diesel particulate matter is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

Asbestos. Asbestos is listed as a TAC by the ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can

result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. Naturally occurring asbestos is not present in Los Angeles County. The nearest likely locations of naturally occurring asbestos, as identified in the General Location Guide for Ultramafic Rocks in California prepared by the California Division of Mines and Geology, is located in Santa Barbara County. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

Monitored Air Quality

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The Plan area is located in Coastal Air Monitoring Area (Source Receptor Area [SRA] 3), which is located in Los Angeles County and covers from the coastline to metropolitan Los Angeles. The nearest air monitoring station to the Plan area is the Compton 700 North Bullis Road Monitoring Station (Compton Station). The Compton Station is located approximately 8.3 miles southeast of the Plan area. **Table 3.3-2** presents the monitored pollutant levels from the Compton Station. However, it should be noted that due to the air monitoring station distance from the Plan area, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the Plan area.

The monitoring data presented in **Table 3.3-2** shows that ozone and particulate matter (PM2.5) are the air pollutants of primary concern in the Plan area, which are detailed below.

Ozone. Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide. CO is another important pollutant that is due mainly to motor vehicles. The Compton Station did not record an exceedance of the state or federal 1-hour or 8-hour CO standards for the last three years.

Nitrogen Dioxide. The Compton Station did not record an exceedance of the State or Federal NO_2 standards for the last three years.

Particulate Matter. During the 2012 to 2014 monitoring period, the State 24-hour concentration standard for PM10 was not exceeded at the Los Angeles Station. Over the same time period the Federal 24-hour and annual standards for PM10 have not been exceeded at the Los Angeles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups

considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

Table 3.3-2: Local Area Air Quality Level from Compton Air Monitoring Station

Pollutant (Standard)[1]	Year		
	2012	2013	2014
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.086	0.090	0.094
Days > CAAQS (0.09 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	0.071	0.080	0.082
Days > NAAQS (0.075 ppm)	0	1	2
Days > CAAQS (0.070 ppm)	1	1	4
Carbon Monoxide:			
Maximum 8-Hour Concentration (ppm)	3.96	--	--
Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppb)	79.3	69.8	68.2
Days > NAAQS (0.1 ppm)	0	0	0
Sulfur Dioxide:[2]			
Maximum 24-Hour Concentration (ppm)	0.002	0.002	--
Days > NAAQS (0.25 ppm)	0	0	0
Inhalable Particulates (PM10):[2]			
Maximum 24-Hour Concentration (ug/m^3)	31.0	38.0	46.0
Days > NAAQS (150 ug/m^3)	0	0	0
Days > CAAQS (50 ug/m^3)	0	0	0
Ultra-Fine Particulates (PM2.5):			
Maximum 24-Hour Concentration (ug/m^3)	51.2	52.1	35.8
Days > NAAQS (35 ug/m^3)	1	1	1

Source: http://www.arb.ca.gov/adam/ , Unless otherwise noted data was taken from Compton-700 North Bullis Road Monitoring Station.
(1) CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb=parts per billion; N/D = no data available
(2) Data taken from the Los Angeles-Westchester Parkway Monitoring Station.

Regulatory Framework

Federal - United States Environmental Protection Agency.

The United States Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The National Ambient Air Quality Standards (NAAQS) pollutants were identified using medical evidence and are shown below in **Table 3.3-3**.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The State Implementation Plan (SIP) must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the State Implementation Plan (SIP).

The Basin has been designated by the EPA as a non-attainment area for ozone (O_3) and suspended particulates (PM10 and PM2.5). Currently, as **Table 3.3-4** shows, the Basin is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO_2), and nitrogen dioxide (NO_2).

Despite substantial improvements in air quality over the past few decades, some air monitoring stations in the Basin still exceed the NAAQS for ozone more frequently than any other stations in the U.S. In 2011, three of the top five stations that exceeded the 8-hour ozone NAAQS were located in the Basin (Central San Bernardino Mountains, East San Bernardino Valley, and Metropolitan Riverside County).

PM2.5 in the Basin has improved significantly in recent years, with 2010 and 2011 being the cleanest years on record. However, the NAAQs for PM2.5 was exceed twice in 2014 and four times in 2012.

The Basin is currently in attainment for the federal standards for carbon monoxide (CO), lead, sulfur dioxide (SO_2), and nitrogen dioxide (NO_2). The concentration level of the 1-hour NO_2 federal standard (100 ppb) was exceeded in the Basin at two stations (Central Los Angeles and Long Beach) on the same day in 2011, the NAAQS NO_2 design value was also exceeded in 2014. Therefore, the Basin may lose its attainment status for NO_2 NAAQS.

State - California Air Resources Board

The California Air Resources Board (CARB), which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the State Implementation Plan (SIP).

Table 3.3-3: State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration/Averaging Time		Most Relevant Effects
	California Standard	Federal Primary Standard	
Ozone (O_3)	0.09 ppm/1-hour 0.07 ppm/8-hour	0.075 ppm/8-hour	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm/1-hour 9.0 ppm/8-hour	35.0 ppm/1-hour 9.0 ppm/8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO_2)	0.18 ppm/1-hour 0.03 ppm/annual	100 ppb/1-hour 0.053 ppm/annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO_2)	0.25 ppm/1-hour 0.04 ppm/24-hour	75 ppb/1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM_{10})	50 µg/m^3/24-hour 20 µg/m^3/annual	150 µg/m^3/24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3/24-hour 12 µg/m^3/annual	a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in elderly.
Sulfates	25 µg/m^3/24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) property damage.
Lead	1.5 µg/m^3/30-day	0.15 µg/m^3/3-month rolling	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer-visibility of 10 miles or more due to particles when humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Table 3.3-4: SCAB Attainment Status

Pollutant	Averaging Time	National Standards	Attainment Date	California Standard
1979 1-Hour Ozone[4]	1-Hour (0.12 ppm)	Nonattainment (Extreme)	11/15/2010 (Not attained[4])	Extreme Nonattainment
1997 8-Hour Ozone[5]	8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024	Nonattainment
2008 8-Hour Ozone	8-Hour (0.075 ppm)	Nonattainment (Extreme)	12/31/2032	
CO	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (Attained)	Maintenance
NO_2[6]	1-Hour (100 ppb) Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (Attained)	Attainment
SO_2[7]	1-Hour (75 ppb) 24-Hour (0.14 ppm) Annual (0.03 ppm)	Designations Pending Unclassifiable/ Attainment	Pending 3/19/1979 (Attained)	Attainment
PM10	24-Hour (150 µg/m^3)	Nonattainment (Serious)[8]	12/31/2006 (Redesignation request submitted)[8]	Nonattainment
PM2.5	24-Hour (35 µg/m^3)	Unclassifiable/ Attainment	Attained	Unclassified
Lead	3-Months Rolling (0.15 µg/m^3)	Nonattainment (Partial)[9]	12/31/2015	Nonattainment

[1] *Obtained from Draft 2012 AQMP, SCAQMD, 2012. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassified/Attainment or Unclassifiable.*

[2] *A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration.*

[3] *Obtained from http://www.arb.ca.gov/desig/adm/adm.htm.*

[4] *1-hour O_3 standard (0.13 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard based on 2008-2010 data has some continuing obligations under the former standard.*

[5] *1997 8-hour O_3 standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the 1997 O3 standard and most related implementation rules remain in place until the 1997 standard is revoked by U.S. EPA.*

[6] *New NO_2 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO_2 standard retained.*

[7] *The 1971 annual and 24-hour SO_2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO_2 1-hour standard. Area designations expected in 2012, with SSAB designated Unclassifiable/Attainment.*

[8] *Annual PM10 standard was revoked, effective December 18, 2006; redesignation request to Attainment of the 24-hour PM10 standard is pending with U.S. EPA*

The California Ambient Air Quality Standards (CAAQS) for criteria pollutants are shown in Table 6. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

The South Coast Air Basin has been designated by the CARB as a nonattainment area for ozone, PM10 and PM2.5. Currently, the South Coast Air Basin is in attainment with the ambient air quality standards for CO, lead, SO_2, NO_2, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

Regional

South Coast Air Quality Management District. The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources.

The 2012 AQMP was prepared in order to meet the federal Clean Air Act requirement that all 24-hour PM2.5 non-attainment areas prepare a SIP, that were required to be submitted to the U.S. EPA by December 14, 2012 and demonstrate attainment with the 24-hour PM2.5 standard by 2014. The 2012 AQMP demonstrates attainment of the federal 24-hour PM2.5 standard by 2014 in the Basin through adoption of all feasible measures, and therefore, no extension of the attainment date is needed.

The 2012 AQMP is designed to satisfy the California Clean Air Act's (CCAA) emission reductions of five percent per year or adoption of all feasible measures requirements and fulfill the EPA's requirement to update transportation conformity emissions budgets based on the latest approved motor vehicle emissions model and planning assumptions. The 2012 AQMP updates and revises the previous 2007 AQMP. The 2012 AQMP was prepared to comply with the Federal and State CCAA and amendments, to accommodate growth, to reduce the high pollutant levels in the Basin, to meet Federal and State ambient air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. The purpose of the 2012 AQMP for the Basin is to set forth a comprehensive program that will lead this area into compliance with all federal and state air-quality planning requirements.

The 2012 AQMP builds upon the approaches taken in the 2007 AQMP for the attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the need to engage in interagency coordinated planning of mobile sources to meet all of the federal criteria pollutant standards. Compared with the 2007 AQMP, the 2012 AQMP utilizes revised emissions inventory projections that use 2008 as the base year. On-road emissions are calculated using CARB EMFAC2011 emission factors and the transportation activity data provided by SCAG from their 2012 Regional Transportation Plan (2012 RTP). Off-road emissions were updated using CARB's 2011 In-Use Off-Road Fleet Inventory Model. Since the 2007 AQMP was finalized new area source categories such as liquid propane gas (LPG) transmission losses, storage tank and pipeline cleaning and degassing, and architectural colorants, were created and included in the emissions inventories. The

2012 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in reaching the GHG target goals in the AB32 Scoping Plan.

The control measures in the 2012 AQMP consist of three components: 1) Basin-wide and episodic short-term PM2.5 measures; 2) Section 182(e)(5) implementation measures; and 3) Transportation control measures. Many of the control measures are not based on command and control regulations, but instead focus on incentives, outreach, and education to bring about emissions reductions through voluntary participation and behavioral changes. More broadly, a transition to zero- and near-zero emission technologies is necessary to meet 2023 and 2032 air quality standards and 2050 climate goals. Many of the same technologies will address both air quality and climate needs.

During construction and operation, the project must comply with applicable rules and regulations. The following are rules the project may be required to comply with, either directly, or indirectly:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.

- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

SCAQMD Rule 445 prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

(1) The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.

(2) Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.

(3) An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

SCAQMD Rule 1108 governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning

operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303 governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM_{10} among other pollutants.

SCAQMD Rule 1401, New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.

SCAQMD Rule 2202, On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

Southern California Association of Governments. The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the Federally designated MPO for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the Regional Transportation Plan and Regional Transportation Improvement Plan (RTIP), which addresses regional development and growth forecasts. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The Regional Transportation Plan, Regional Transportation Improvement Plan, and AQMP are based on projections originating within the City and County General Plans.

Local - City of Hawthorne General Plan

The City of Hawthorne Conservation Element, adopted March,1989 contains the following air quality and/or greenhouse gas emissions reduction-related objectives and policies that are applicable to the proposed project:

GOAL 1.0: Maintain a safe, clean drinking water supply capable of adequately meeting normal and emergency demands in the city through sound conservation and management practice.

> **Policy** 1.7: The City shall develop a "recommended plants list" which encourages the use of native and drought tolerant and water conserving landscapes with low-flow (drip) irrigation systems.

GOAL 2.0: Protect and upgrade our air resources so that ambient air quality standards are met on a consistent basis.

Policy 2.1: The City shall cooperate with and support the California Air Resources Board and the South Coast Air Quality Management District in their efforts to maintain ambient air quality levels.

Policy 2.2: The City shall encourage alternate modes of transportation including vanpooling, carpooling, bicycling and mass transit use.

Policy 2.3: The City shall encourage development plans that are less automobile oriented.

Policy 2.4*:* The City shall promote an integration of land uses so that alternative modes of transportation such as walking and bicycling, can be utilized for movement between uses.

Policy 2.5: The City shall adopt a citywide plan of bicycle routes, and will incorporate bicycle facilities at park-and-ride locations and, where appropriate, along the bicycle routes.

Policy 2.6*:* The City will develop a ride-sharing program for municipal employees.

GOAL 3.0: Encourage the efficient use of energy and promote the conservation of non-renewable energy sources.

Policy 3.1: The City shall encourage the development of alternative renewable energy resources such as wind, solar and co-generation.

Policy 3.2: The City shall encourage the development of smaller scale energy projects and decentralized facilities.

Policy 3.3: The City shall promote community-wide education programs with regard to using energy wisely.

Policy 3.4: The City shall cooperate with and support the efforts of the Public Utilities Commission in making energy affordable and accessible for everyone.

Policy 3.5: The City shall encourage the recycling of paper, metal, plastic and glass wastes.

Policy 3.6: The City should consider the use of reclaimed water for irrigation of public parks and open spaces.

Policy 3.7: The City shall continue to explore possibilities for a co-generation facility to heat the Municipal Swimming Pool and possibilities for utilizing thermal energy storage techniques to heat and cool Civic Center buildings.

Policy 3.8: The City should make an energy evaluation check a routine part of the plan checking process.

Policy 3.9: The City shall develop a monitoring program to identify municipal energy consumption trends and make this information available to the general public.

Policy 3.10: The City shall work with Southern California Edison Company, Southern California Gas Company and Northrop Corporation to formulate specific guidelines designed to use energy more efficiently and control energy waste in the City.

Standard of Significance

Regional Air Quality

The SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the South Coast Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in **Table 3.3-5**.

Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), June 2003, which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO_2 (NO_X), CO, PM10, and PM2.5.

The significance thresholds for the local emissions of NO_2 and CO are determined by subtracting the highest background concentration from the last three years of these pollutants from **Table 3.3-2**, from the most restrictive ambient air quality standards for these pollutants that are outlined in the LST. Previous **Table 3.3-3** shows the LST for NO_X, CO, and PM10 and PM2.5 as well as the background concentrations and resultant significance concentrations.

Table 3.3-5: SCAQMD Air Quality Significance Thresholds

Mass Daily Threshold		
Pollutant	**Construction (lbs/day)**	**Operation (lbs/day)**
NOx	100	55
VOC	75	55
PM10	150	150
PM2.5	55	55
SOx	150	150
CO	550	550
Lead	3	3
Toxic Air Contaminants, Odor and GHG Thresholds		
TACs	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index > 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO2e for industrial facilities	
Ambient Air Quality Standards		
Pollutant	**SCAQMD Standards**	
NO2 -1-hour average	0.18 ppm (338 µg/m^3)	
PM10 -24-hour average Construction Operations	 10.4 µg/m^3 2.5 ug/m^3	
PM2.5 -24-hour average Construction Operations	 10.4 µg/m^3 2.5 µg/m^3	
SO2 1-hour average 24-hour average	 0.25 ppm 0.04 ppm	
CO 1-hour average 8-hour average	 20 ppm (23,000 µg/m^3) 9 ppm (10,000 µg/m^3)	
Lead 30-day average Rolling 3-month average Quarterly average	 1.5 µg/m^3 0.15 µg/m^3 1.5 µg/m^3	

[1] *Source: http://www.aqmd.gov/ceqa/handbook/signthres.pdf*

Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the proposed project would result in a Hazard Index increase of 1 or greater.

In order to determine if the proposed project may have a significant impact related to hazardous air pollutants (HAP), the Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, (Diesel Analysis), prepared by SCAQMD, August 2003, recommends that if the proposed project is anticipated to create hazardous air pollutants through stationary sources or regular operations of diesel trucks on the project site, then the proximity of the nearest receptors to the source of the hazardous air pollutants and the toxicity of the hazardous air pollutants should be analyzed through a comprehensive facility-wide health risk assessment (HRA). According to the most recent Federal Railroad Administration Inventory Data sheets (see Appendix D), approximately 2 freight trains travel on this rail line per day, usually between the hours of 6:00 PM and 6:00 AM. It is currently unknown if new sensitive receptors will be place in proximity to rail uses; however, it is unlikely, furthermore the low level freight train activity is not anticipated to cause a significant increase in TACs beyond existing levels. Additionally, this project would have minimal traffic/on-site idling in the form of heavy-duty trucks at commercial uses; therefore, an HRA is not required.

Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

"A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

Impacts and Mitigation Measures

Impact 3.3A-1 Construction-Related Criteria Pollutants Analysis

Specific Plan

Typical emission rates from construction activities were obtained from CalEEMod Version 2013.2.2 CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. Using CalEEMod, the peak daily air pollutant emissions during each phase was calculated and presented below. These emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions. Details of the construction emissions printouts from CalEEMod are provided in **Appendix C**.

The proposed Plan will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. As only minor grading will occur at demolition sites only, the total grading footprint would be approximately 69.62 acres total (with a maximum of five acres disturbed in one day) a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures are used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur.

The phases of the construction activities which have been analyzed below are: 1) demolition, 2) fine grading, 3) building construction, 4) paving, and 5) application of architectural coatings. For details on construction modeling, please see Appendix B.

The application of architectural coatings would occur after the completion of the construction phase. Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings applied after January 1, 2014 are be limited to an average of 50 grams per liter or less and the CalEEMod model default VOC emissions have been adjusted accordingly.

The construction-related criteria pollutant emissions for each phase are shown below in **Table 3.3-6** Construction of the Transformative Projects and the Additional Cumulative Development are not anticipated to overlap. **Table 3.3-6** shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a ***less than significant*** regional air quality impact would occur from implementation the proposed Plan.

Transformative Projects

Table 3.3-6 also shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds with the construction of the Transformative Projects. Therefore, a ***less than significant*** regional air quality impact would occur from construction of the proposed Transformative Projects.

Table 3.3-6: Construction-Related Regional Pollutant Emission for 2020 and 2035

Activity[1]	Pollutant Emissions (pounds/day)					
	VOC	NO_x	CO	SO_2	PM10	PM2.5
Transformative Projects 2020						
Demolition	6.45	79.14	59.78	0.13	6.81	3.55
Grading	6.18	69.69	48.06	0.06	6.11	4.43
Building Construction	10.24	61.21	120.82	0.26	16.65	6.03
Paving	1.48	15.00	15.15	0.02	0.98	0.79
Architectural Coating	20.28	3.00	14.13	0.03	2.57	0.81
Total Overlapping Phases[2]	31.99	79.21	150.11	0.32	20.20	7.62
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
DHSP 2035						
Demolition	3.19	31.64	30.90	0.04	2.10	1.52
Grading	2.62	26.18	23.81	0.04	3.73	2.44
Building Construction	2.45	23.71	23.11	0.04	7.31	4.35
Paving	0.93	8.46	14.76	0.02	0.58	0.42
Architectural Coating	6.61	1.04	4.20	0.01	0.96	0.27
Total Overlapping Phases[2]	9.98	33.21	42.07	0.07	8.85	5.05
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod Version2013.2.2

(1) On-site emissions from equipment operated on-site that is not operated on public roads and off-site emissions from equipment operated on public roads.

(2) Construction, architectural coatings and paving phases may overlap.

Mitigation Measures 3.3A-1

No mitigation measures are required.

Level of Impact after Implementation of Project Mitigation 3.3A-1

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.3A-2 Construction-Related Local Air Quality

Specific Plan

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2) The maximum number of acres disturbed on the peak day.
3) Any emission control devices added onto off-road equipment.
4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The CalEEMod output sheets included in Appendix B show the equipment used for this analysis.

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed Plan could result in a significant impact to the local air quality. The localized assessment methodology limits the emissions in the analysis to those generated from on-site activities. The emission thresholds were calculated based on the Southwest Coastal Air Monitoring Area source receptor area (SRA) 3 and a disturbance of 5 acres per day at a distance of 25 meters for Transformative Year 2020 projects and a disturbance of 3 acres per day at a distance of 25 meters for Additional Cumulative Year 2035 projects. As the look-up tables only have thresholds for 1, 2 and 5 acres, interpolation was used to calculate the thresholds for 3 acres.

Table 3.3-7 shows the on-site emissions from the CalEEMod model for the different construction phases and the LST emissions thresholds. The data provided in **Table 3.3-7** shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive

receptors during the implementation of the DHSP . Therefore, a ***less than significant*** local air quality impact would occur from implementation of the proposed Plan.

Transformative Projects

Table 3.3-7 also shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors during either construction of the Transformative Projects. Therefore, a ***less than significant*** local air quality impact would occur from construction of the proposed Transformative Projects.

Table 3.3-7: Construction-Related On-Site Pollutant Emission for 2020 and 2035

Activity	On-Site Pollutant Emissions (pounds/day)			
	NO_x	CO	PM10	PM2.5
Transformative Projects 2020				
Demolition	45.66	35.03	3.25	2.28
Grading	69.59	46.81	5.89	4.37
Building Construction	26.41	18.13	1.78	1.67
Paving	14.94	14.37	0.81	0.74
Architectural Coating	2.01	1.85	0.15	0.15
SCAQMD Thresholds for 25 meters (82 feet)[1]	**197**	**1,796**	**15**	**8**
Exceeds Thresholds	**NO**	**NO**	**NO**	**NO**
DHSP 2035				
Demolition	31.02	29.61	1.75	1.43
Grading	26.13	23.25	3.58	2.40
Building Construction	23.67	22.58	7.17	4.31
Paving	8.42	14.28	0.41	0.38
Architectural Coating	0.86	1.80	0.02	0.02
SCAQMD Thresholds for 25 meters (82 feet)[1]	**153**	**1,243**	**10**	**6**
Exceeds Thresholds	**NO**	**NO**	**NO**	**NO**

Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables in Southwest Coastal LA County, Revised October 21, 2009.

(1) The estimated distance from the project site to the nearest sensitive receptor is ~82 feet. Project will disturb a maximum of three acres per day. As the look-up tables only have thresholds for 1, 2 and 5 acres, interpolation was used to calculate the thresholds for 3 acres.

Mitigation Measures 3.3A-2

No mitigation measures are required.

Level of Impact after Implementation of Project Mitigation 3.3A-2

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.3A-3 Construction-Related Toxic Air Contaminants

Specific Plan

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the relatively limited number of heavy-duty construction equipment and the relatively short-term construction schedule, the proposed project would not result in a long-term (i.e., 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. Therefore, ***less than significant*** short-term toxic air contaminant impacts would occur during construction of the proposed project.

Transformative Projects

Construction activities of the Transformative Projects would be similar to those of other development projects within the DHSP. Impacts would thus be considered ***less than significant***.

Mitigation Measures 3.3A-3

No mitigation measures are required.

Level of Impact after Implementation of Project Mitigation 3.3A-3

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.3A-4 Construction-Related Odor

Specific Plan

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement and diesel exhaust emissions. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected to cease upon the drying or hardening of the odor producing materials. Due to the short-

term nature and limited amounts of odor producing materials being utilized, ***less than significant*** impact related to odors would occur during construction of the proposed project.

Transformative Projects

Construction activities of the Transformative Projects would be similar to those of other development projects within the DHSP. Thus, impacts would be considered ***less than significant***.

Mitigation Measures 3.3A-4

No mitigation measures are required.

Level of Impact after Implementation of Project Mitigation 3.3A-4

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.3A-5 Operations-Related Criteria Pollutant Analysis

Specific Plan

The operations-related criteria air quality impacts created by the proposed Plan for Existing Uses 2015, Transformative Year 2020, and Additional Cumulative Development (remaining DHSP) Year 2035 have been analyzed through use of the CalEEMod model. The operations daily emissions printouts from the CalEEMod model are provided in **Appendix C**. The CalEEMod analyzes operational emissions from area sources, energy usage, and mobile sources, which are analyzed below.

- **Mobile Sources.** Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips from the Downtown Hawthorne Specific Plan Traffic Impact Study prepared by Evan Brooks Associates, Inc., 2015, into the CalEEMod Model.
- **Area Sources.** Area sources include emissions from consumer products, landscape equipment and architectural coatings.
- **Energy Usage.** Energy usage includes emissions from the generation of electricity and natural gas used on-site.

The worst-case summer or winter VOC, NOx, CO, SO_2, PM10, and PM2.5 emissions created from the proposed Plan's long-term operations have been calculated and are summarized below in **Table 3.3-8,** which shows that for existing uses, emissions exceed SCAQMD thresholds for all pollutants except SO_2. For the on-going operations activities for the Transformative Projects, VOC, NO_x, and CO emissions would exceed the SCAQMD regional thresholds of significance. For the on-going operations activities for the remaining DHSP (Additional Cumulative Developments), VOC and NO_x emissions would exceed the SCAQMD regional thresholds of significance. At full buildout (Transformative Projects plus the remaining DHSP), emissions would be exceeded for all pollutants

except SO_2 and PM-2.5. Therefore, impacts are considered ***significant*** for all but SO_2 and PM-2.5 emissions.

Transformative Projects

As **Table 3.3-8** shows, for the Transformative Projects in 2020, emissions would be exceeded for VOC, NOx, and CO pollutants, but not for SO_2, PM10, and PM2.5. Therefore, impacts are considered ***significant*** for VOC, NOx, and CO emissions.

Mitigation Measures 3.3A-5

The following mitigation measures shall be implemented:

- The project applicant shall provide sidewalks with pedestrian amenities and biking facilities within the project boundary and along the off-site roadway improvements to facilitate pedestrian traffic.
- The project applicant shall require that all building structures meet or exceed 2013 Title 24, Part 6 Standards, and Green Building Code Standards (CalGreen) per City of Hawthorne requirements.
- The project applicant shall require that indoor water usage be reduced by 20 percent per CalGreen standards.
- The project applicant shall require that ENERGY STAR-compliant appliances are installed wherever appliances are needed in buildings on-site.
- The project applicant shall require recycling programs that reduces waste to landfills by a minimum of 75 percent (per AB 341).

Level of Impact after Implementation of Project Mitigation 3.3A-5

The mitigated operational regional criteria pollutant emissions are shown in **Table 3.3-9**. This table shows that, with incorporation of the aforementioned mitigation measures and utilization of the CAPCOA-based reduction measures in CalEEMod, the analyzed criteria pollutants would still exceed the regional emissions thresholds for VOC and NOx for the Transformative Projects and VOC and NOx for the Additional Cumulative Developments in the remaining DHSP area. Emissions still exceeded for VOC and NOx at full buildout. However, when compared to the existing emissions, the total emissions for the total DHSP are 96.5 percent less for VOC (ROG), 77.2 percent less for NOx, 89.2 percent less for CO, 80.4 percent less for PM-10 and 94.5 percent less for PM-2.5. However, as the emissions exceed the SCAQMD regional operational thresholds, a ***significant and unavoidable*** impact would occur from operation of the proposed Plan.

Table 3.3-8: Unmitigated Operational Pollutant Emissions for 2015, 2020 and 2035

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_x	CO	SO_2	PM10	PM2.5
Existing 2015						
Area Sources	2,128.54	54.36	4,175.26	5.72	546.78	546.70
Energy Usage	3.94	34.00	16.77	0.21	2.72	2.72
Mobile Sources	384.85	1,010.69	4,041.87	8.29	558.19	158.59
Total	**2,517.32**	**1,099.05**	**8,233.91**	**14.23**	**1,107.70**	**708.01**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**
Transformative Projects 2020						
Area Sources	61.92	0.58	50.56	0.00	1.01	1.00
Energy Usage	1.18	10.58	7.88	0.06	0.82	0.82
Mobile Sources	106.37	260.01	1,064.24	2.93	203.59	57.18
Subtotal Emissions	**169.47**	**271.17**	**1,122.68**	**3.00**	**205.42**	**59.00**
-Commercial, office and residential uses being removed	-52.98	-100.09	-413.62	-1.18	-77.82	-22.35
Total Emissions	**116.49**	**171.08**	**709.05**	**1.82**	**127.60**	**36.65**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds	**YES**	**YES**	**YES**	**NO**	**NO**	**NO**
Remaining DHSP 2035						
Area Sources	32.11	0.00	0.13	0.00	0.00	0.00
Energy Usage	0.22	2.02	1.69	0.01	0.15	0.15
Mobile Sources	41.17	92.88	427.13	1.70	113.03	32.06
Subtotal Emissions	**73.50**	**94.90**	**428.95**	**1.72**	**113.19**	**32.21**
-338 Residential Condos	-101.19	-15.05	-246.53	-0.50	-40.70	-30.20
Total Emissions	**-27.69**	**79.85**	**182.43**	**1.22**	**72.49**	**2.01**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**
Total DHSP 2035						
Total Emissions For DHSP Area	**88.80**	**250.93**	**891.48**	**3.04**	**200.09**	**38.66**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds	**YES**	**YES**	**YES**	**NO**	**YES**	**NO**

Source: CalEEMod Version2013.2.2,

Table 3.3-9: Mitigated Operational Pollutant Emissions for 2020 and 2035

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_x	CO	SO_2	PM10	PM2.5
Transformative Projects 2020						
Area Sources	54.62	0.58	50.56	0.00	1.01	1.00
Energy Usage	0.94	8.46	6.30	0.05	0.65	0.65
Mobile Sources	93.76	163.82	755.48	1.64	111.20	31.32
Subtotal Emissions	**149.32**	**172.86**	**812.34**	**1.70**	**112.86**	**32.98**
-1,800 SF Special Retail	-52.98	-100.09	-413.62	-1.18	-77.82	-22.35
Total Emissions	**96.34**	**72.77**	**398.72**	**0.52**	**35.04**	**10.63**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**
Remaining DHSP 2035						
Area Sources	32.11	0.00	0.13	0.00	0.00	0.00
Energy Usage	0.16	1.49	1.26	0.00	0.11	0.11
Mobile Sources	38.72	77.34	373.57	1.33	87.55	24.75
Subtotal Emissions	**70.99**	**78.83**	**374.96**	**1.33**	**87.67**	**24.86**
-338 Residential Condos	-101.19	-15.05	-246.53	-0.50	-40.70	-30.20
Total Emissions	**-30.20**	**63.79**	**128.43**	**0.83**	**46.97**	**-5.34**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**
Total DHSP 2035						
Total Emissions For DHSP Area	**66.14**	**136.55**	**527.15**	**1.35**	**82.01**	**5.29**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Thresholds	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod Version2013.2.2

Impact 3.3A-6 Cumulative Regional Air Quality

Specific Plan

Cumulative projects include local development as well as general growth within the Plan area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an

even larger area. Accordingly, the cumulative analysis for the Plan's air quality must be generic by nature.

The Plan area is out of attainment for both ozone and particulate matter. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. With respect to long-term emissions, this Plan would create a ***significant*** cumulative impact.

Transformative Projects

Construction and operational activities of the Transformative Projects would be similar to those of other development projects within the DHSP. Thus, impacts would be considered a ***significant*** cumulative impact.

Mitigation Measures 3.3A-6

Please refer to previous Mitigation Measures 3.3A-5.

Level of Impact after Implementation of Project Mitigation 3.3A-6

The impacts of the proposed Plan would remain ***significant and unavoidable***.

Impact 3.3A-7 Operations-Related Local Air Quality

Specific Plan

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analyzes the vehicular CO emissions, local impacts from on-site operations, and odor impacts.

Local CO Emission Impacts from Project-Generated Vehicular Trips. CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards.

To determine if the proposed Plan could cause emission levels in excess of the CO standards, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, "hot spots" typically occur at high traffic volume intersections with a LOS E or worse.

The Traffic Analysis showed that the highest intersection volume is 2,819 for the Year 2035 with DHSP scenario at El Segundo Boulevard and the I-405 freeway northbound off-ramp. The 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. The volume of traffic at Plan buildout with cumulative projects is much lower than the necessary volume to cause a violation of the CO standard. Therefore no CO "hot spot" modeling was performed and ***less than significant*** long-term air quality impact is anticipated to local air quality with the on-going use of the proposed Plan.

Local Air Quality Impacts from On-Site Operations. The proposed project involves the implementation of a Specific Plan with residential, commercial, and open space /park uses. The long-term emissions, as discussed previously, are primarily in the form of mobile source emissions and consumer products. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site; such as warehouse/transfer facilities. Therefore, due to the lack of stationary source emissions, no long-term LST analysis is warranted.

Operations-Related Odor Impacts. Potential sources that may emit odors during the on-going operations of the proposed Plan would include odor emissions from diesel truck emissions and trash storage areas. Through compliance with SCAQMD's Rule 402 ***less than significant*** impact related to odors would occur during the on-going operations of the proposed Plan.

Transformative Projects

Operational activities from the Transformative Projects would be similar to those of activities from projects within the DHSP. Thus, local air quality impacts from operational activities would be considered ***less than significant***.

Mitigation Measures 3.3A-7

No mitigation measures are required.

Level of Impact after Implementation of Project Mitigation 3.3A-7

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.3A-8 Consistency with General Plan and Regional Plans

Specific Plan

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed Plan and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed Plan includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the proposed Plan with the AQMP.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

1. Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2. Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations. Based on the air quality modeling analysis contained in this Air Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This Air Analysis also found that, even with mitigation, long-term operations impacts will result in significant and unavoidable impacts based on the SCAQMD regional thresholds of significance. Therefore, the proposed Plan is projected to contribute to the exceedance of any air pollutant concentration standards and is found to be inconsistent with the AQMP for the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP. Consistency with the AQMP assumptions is determined by performing an analysis of the proposed Plan with the assumptions in the AQMP. The emphasis of this criterion is to insure that the analyses conducted for the proposed Plan are based on the same forecasts as the AQMP. The Regional Comprehensive Plan and Guide (RCP&G) consists of three sections: Core Chapters, Ancillary Chapters, and Bridge Chapters. The Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management chapters constitute the Core Chapters of the document. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City of Hawthorne General Plan defines the assumptions that are represented in the AQMP.

The City of Hawthorne General Plan Land Use designations for the proposed DHSP area include high and low density residential, local and general commercial, public facility, and open space. The Downtown Hawthorne Specific Plan includes land uses such as residential, commercial, public/quasi-

public, hospitality, and mixed use. Therefore, the project would not result in an inconsistency with the current land use designation. Therefore, the proposed Plan is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

However, based on the failure of Criterion 1 above, the proposed Plan would be inconsistent with the SCAQMD AQMP. Therefore, this is considered a ***significant*** impact.

Transformative Projects

Impacts from the development of the Transformative Projects would be similar to that of the DHSP. Due to the failure of Criterion 1, the Transformative Projects would be inconsistent with the SCAQMD AQMP, and therefore, would be considered a ***significant*** impact.

Mitigation Measures 3.3A-8

Refer to previous Mitigation Measures 3.3A-5

Level of Impact after Implementation of Project Mitigation 3.3A-8

The impacts of the proposed Plan would be ***significant and unavoidable***.

Unavoidable Significant Adverse Impact(s)

Unavoidable significant adverse impacts would occur for: Impact3.3A-5 Operations-Related Criteria Pollutant Analysis; Impact 3.3A-6 Cumulative Regional Air Quality; and, Impact 3.3A-8 Consistency with General Plan and Regional Plans.

B. Greenhouse Gas Emissions

Environmental Setting

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO_2 and nitrous oxide (NOx) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

Greenhouse Gases

Water Vapor. This is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

Carbon Dioxide. The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid 1700s. Each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be

increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC) indicates that concentrations were 379 ppm in 2005, an increase of more than 30 percent. Left unchecked, the IPCC projects that concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources. This could result in an average global temperature rise of at least two degrees Celsius or 3.6 degrees Fahrenheit. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.

Methane. CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and Chlorofluorocarbons (CFCs). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.

Nitrous Oxide. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is also commonly used as an aerosol spray propellant, (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and in race cars). Sources include microbial processes in soil and water, fuel combustion, and industrial processes.

Chlorofluorocarbons. CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. It was used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons. HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-

134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons. PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride. SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols. Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

Global Warming Potential

GHGs have varying global warming potential (GWP). The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere; it is the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to the reference gas, CO_2. One teragram of carbon dioxide equivalent (Tg CO_2e) is essentially the emissions of the gas multiplied by the global warming potential. One teragram is equal to one million metric tons. The carbon dioxide equivalent is a good way to assess emissions because it gives weight to the global warming potential of the gas.

Regulatory Framework

State – California Air Resources Board

The State currently has no regulations that establish ambient air quality standards for GHGs. However, the State has passed laws directing CARB to develop actions to reduce GHG emissions. The key legislation regarding GHG include:

Assembly Bill 1493. California Assembly Bill 1493 (also known as the Pavley Bill, in reference to its author Fran Pavley) was enacted on July 22, 2002 and required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2004, CARB approved the "Pavley I" regulations limiting the amount of GHGs that may be released from new passenger automobiles that are being phased in between model years 2009 through 2016. This regulation will reduce GHG emissions by 30 percent from 2002 levels by 2016. The second set of regulations "Pavley II" is currently in development and will be phased in between model years 2017 through 2025 and will reduce emissions by 45 percent by the year 2020. The Pavley II standards are being developed by linking the GHG emissions and formerly separate toxic tailpipe emissions standards previously known as the "LEV III" (third stage of the Low Emission Vehicle standards) into a single regulatory framework.

In 2005, the CARB submitted a "waiver" request to the EPA in order to implement the GHG standards and in March of 2008, the U.S. EPA denied the request. However, in June 2009, the decision was reversed and the U.S. EPA granted California the authority to implement the GHG standards for passenger cars, pickup trucks and sport utility vehicles. In September 2009, the Pavley I regulations were adopted by CARB.

Assembly Bill 32. In 2006, the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective.

Senate Bill 97. Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Senate Bill 375. Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

Regional – South Coast Air Quality Management District

In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a working group and adopted Rules 2700, 2701, 2702, and 3002 which are described below.

SCAQMD Stakeholder Working Group. Since neither CARB nor the OPR has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual thresholds of 10,000 MTCO2e for industrial uses.

Rules 2700 and 2701. The SCAQMD adopted Rules 2700 and 2701 on December 5, 2008, which establishes the administrative structure for a voluntary program designed to quantify GHG emission reductions. Rule 2701 provides specific protocols for private parties to follow to generate certified GHG emission reductions for projects within the district. Approved protocols include forest projects, urban tree planting, and manure management. The SCAQMD is currently developing additional protocols for other reduction measures. For a GHG emission reduction project to qualify, it must be verified and certified by the SCAQMD Executive Officer, who has 60 days to approve or deny the Plan. Upon approval of the Plan, the Executive Officer issues required to issue a certified receipt of the GHG emission reductions within 90 days.

Rule 2702. The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a Federal cap and trade program.

Rule 3002. The SCAQMD amended Rule 3002 on November 5, 2010 to include facilities that emit greater than 100,000 tons per year of CO_2e are required to apply for a Title V permit by July 1, 2011. A Title V permit is for facilities that are considered major sources of emissions.

Local

Hawthorne General Plan Conservation Element. The City of Hawthorne Conservation Element, adopted March,1989 contains policies that pertain to both air quality and/or greenhouse gas emissions reduction. Those policies are identified in the previous section under Air Quality.

California Green Building Standards Code. The project is subject to the requirements of the California Green Building Standards Code. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The California Green Building Standards Code (code section in parentheses) requires:

- Water Efficiency and Conservation [Indoor Water Use (4.303.1)]. Fixtures and fixture fittings reducing the overall use of potable water within the building by at least 20 percent shall be provided. The 20 percent reduction shall be demonstrated by one of the following methods:
  - Prescriptive Method: Showerheads (≤ 2.0 gpm @ 80 psi); Residential Lavatory Faucets (≤ 1.5 gpm @ 60 psi); Nonresidential Lavatory Faucets (≤ .4 gpm @ 60 psi); Kitchen Faucets (≤ 1.8 gpm @ 60 psi); Toilets (≤ 1.28 gal/flush); and urinals (≤ 0.5 gal/flush).
  - Performance Method: Provide a calculation demonstrating a 20% reduction of indoor potable water using the baseline values set forth in Table 4.303.1. The calculation will be limited to the total water usage of showerheads, lavatory faucets, water closets and urinals within the dwelling.
- Water Efficiency and Conservation [Outdoor Water Use (4.304.1)]. Irrigation Controllers. Automatic irrigation system controllers for landscaping provided by the builder and installed at the time of final inspection shall comply with the following:
  - Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' watering needs as weather or soil conditions change.
  - Weather-based controllers without integral rain sensors or communication systems that account for rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s).
- Construction Waste Reduction of at least 50 percent (4.408.1). Recycle and/or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4; OR meet a more stringent local construction and demolition waste management ordinance. Documentation is required per Section 4.408.5. Exceptions:
  - Excavated soil and land-clearing debris.
  - Alternate waste reduction methods developed by working with local enforcing agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
  - The enforcing agency may make exceptions to the requirements of this section when jobsites are located in areas beyond the haul boundaries of the diversion facility.

- Materials pollution control (4.504.1 – 4.504.6). Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particleboard.
- Installer and Special Inspector Qualifications (702.1-702.2). Mandatory special installer inspector qualifications for installation and inspection of energy systems (e.g., heat furnace, air conditioner, mechanical equipment).

Standard of Significance

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy or regulation adopted for the purposes of reducing the emissions of GHG.

Impacts and Mitigation Measures

Impact 3.3B-1 Greenhouse Gas Emissions

Specific Plan

The CalEEMod Version 2013.2.2 was used to calculate the GHG emissions from the proposed project. The project's Existing Uses 2015, Transformative Year 2020, and Additional Cumulative Development Year 2035 emissions were calculated and the results are shown in **Table 3.3-10**. The Transformative Project Year 2020 emissions were compared to the SCAQMD 2020 Target Service Population threshold of 4.8 $MTCO_2e$/SP/year for projects, and Additional Cumulative Development Year 2035 emissions were compared to the SCAQMD 2035 Target Service Population threshold of 4.1 $MTCO_2e$/SP/year for plans (as the remaining DHSP is programmatic).

The City of Hawthorne does not currently have a Climate Action Plan, but has objectives and policies within the Conservation Element of the City's General Plan that would serve to reduce greenhouse gas emissions. Details of the CalEEMod GHG emissions is described in greater detail in **Appendix C.**

Table 3.3-10: Unmitigated Project-Related Greenhouse Gas Emissions for 2015, 2020 and 2035

Activity	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO_2	NonBio-CO_2	CO_2	CH_4	N_2O	CO_2e
Existing 2015						
Total Emissions	2,425.03	156,960.55	159,385.88	120.57	0.00	**162,275.56**
Transformative Projects 2020						
Total Emissions	321.03	31,193.56	31,514.59	24.67	-0.07	32,140.88
SCAQMD 2020 Target Service Population Threshold 4.8 $MTCO_2e$/SP/year for projects						**5.5**
Exceeds Thresholds?						**YES**
Remaining DHSP 2035						
Total Emissions	236.32	22,124.41	22,360.72	-27,934.55	0.16	22,802.38
SCAQMD 2035 Target Service Population Threshold 4.1 $MTCO_2e$/SP/year for projects						**15.8**
Exceeds Thresholds?						**YES**
Total DHSP 2035						
Total Emissions For DHSP Area	557.35	53,317.96	53,875.31	-27,909.88	0.09	54,943.26
Existing SP Used Emissions ($MTCO_2e$/year)						**162,275.56**
Comparison Between Existing and Proposed Uses				**Emissions from proposed Transformative Projects and Balance of the DHSP are 63.2% lower than Existing Emissions**		

Source: CalEEMod Version2013.2.2.

The Existing Year 2015 emissions would be approximately 162,275.56 metric tons of CO_2e per year. The project's emissions for Year 2020 Transformative Projects would be approximately 32,140.88 metric tons of CO_2e per year, and at 5.5 $MTCO_2e$/SP/year, would exceed the SCAQMD 2020 Target Service Population threshold of 4.8 $MTCO_2e$/SP/year for projects. The project's emissions for the remaining DHSP area (additional Cumulative Projects 2035) would be approximately 22,802.38 metric tons of CO_2e per year, and at 15.8 $MTCO_2e$/SP/year, would exceed the SCAQMD 2035 Target Service Population threshold of 4.1 $MTCO_2e$/SP/year for plans; mainly from mobile source emissions. The total emissions for the Transformative Projects and the remaining DHSP area are 54,943.26 metric tons of CO_2e per year; however, those unmitigated emissions are 63.2 percent lower than the

existing use emissions. As the emissions exceed SCAQMD thresholds, this is considered a ***significant*** impact.

Transformative Projects

The project's emissions for Year 2020 Transformative Projects would be approximately 32,140.88 metric tons of CO_2e per year, and at 5.5 $MTCO_2e$/SP/year, would exceed the SCAQMD 2020 Target Service Population threshold of 4.8 $MTCO_2e$/SP/year for projects. As the emissions exceed SCAQMD thresholds, this is considered a ***significant*** impact.

Mitigation Measures 3.3B-1

Refer to previous Mitigation Measures 3.3A-5.

Level of Impact after Implementation of Project Mitigation 3.3B-1

The data provided in **Table 3.3-11** shows that the proposed Plan's mitigated year 2020 Transformative Projects emissions would be approximately 15,686.71 metric tons of CO_2e per year, and at 2.7 MTCO2e/SP/year, would no longer exceed the SCAQMD 2020 Target Service Population threshold of 4.8 MTCO2e/SP/year for projects. GHG emissions impacts have been mitigated to ***less than significant*** levels.

The project's mitigated emissions for the remaining DHSP area (additional Cumulative Development Year 2035) would be approximately 17,322.43 metric tons of CO_2e per year, and at 12.0 MTCO2e/SP/year, would still exceed the SCAQMD 2035 Target Service Population threshold of 4.1 MTCO2e/SP/year for plans. Again, the emissions are mainly from mobile source emissions. The total mitigated emissions for the Transformative Projects and the remaining DHSP area are 33,009.15 metric tons of CO_2e per year; however, those mitigated emissions are now 79.7 percent lower than the existing use emissions, and are reduced by 21,934.11 metric tons of CO_2e per year over the unmitigated scenarios, which is a reduction of 39.9 percent. However, when comparing the total mitigated emissions for the Transformative Projects and the remaining DHSP area to the SCAQMD 2035 target service population threshold, the emissions exceed the threshold. The mitigated emissions values also incorporate the CAPCOA-based land use and site enhancement measures available for reductions through CalEEMod (see the notes section of the annual CalEEMod outputs in Appendix C). The project will also employ the energy-saving features and emissions reductions features detailed in the DHSP which would reduce emissions further. As the total project-related GHG emissions at buildout (2035) exceed the SCAQMD 2035 target service population threshold, impacts are considered a ***unavoidable significant*** impact after mitigation.

Table 3.3-11: Mitigated Project-Related Greenhouse Gas Emissions for 2020 and 2035

Activity	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO_2	NonBio-CO_2	CO_2	CH_4	N_2O	CO_2e
Transformative Projects 2020						
Total Emissions	76.33	15,345.69	15,422.02	8.58	-0.07	15,686.71
SCAQMD 2020 Target Service Population Threshold 4.8 $MTCO_2e$/SP/year for projects						**2.7**
Exceeds Thresholds						**NO**
Remaining DHSP 2035						
Total Emissions	31.58	17,126.44	17,158.02	-27,947.25	0.13	17,322.43
SCAQMD 2035 Target Service Population Threshold 4.1 $MTCO_2e$/SP/year for plans						**12.0**
Exceeds Thresholds						**YES**
Total DHSP 2035						
Total Emissions For DHSP Area	107.91	32,472.13	32,580.04	-27,938.66	0.06	33,009.15
SCAQMD 2035 Target Service Population Threshold 4.1 $MTCO_2e$/SP/year for projects						**4.5**
Existing SP Used Emissions ($MTCO_2e$/year)						**YES**
Comparison Between Existing and Proposed Uses				**Emissions from proposed Transformative Projects and Balance of the DHSP are 79.7% lower than Existing Emissions**		

Source: CalEEMod Version2013.2.2,

Impact 3.3B-2 Greenhouse Gas Plan Consistency

Specific Plan

Although the GHG emissions generated by the proposed Plan would exceed the SCAQMD Target Service Population thresholds for both 2020 and 2035, overall mitigated emissions would be reduced by 25.6 percent from the unmitigated emissions scenario. Consequently, the implementation of the proposed Plan would not hinder the state's ability to achieve AB 32's goal of achieving 1990 levels of GHG emissions by 2020.

Emission reductions in California alone would not be able to stabilize the concentration of greenhouse gases in the earth's atmosphere. However, California's actions set an example and drive progress towards a reduction in greenhouse gases elsewhere. If other states and countries were to

follow California's emission reduction targets, this could avoid medium or higher ranges of global temperature increases. Thus, severe consequences of climate change could also be avoided.

The ARB Board approved a Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (California Air Resources Board 2008). The measures in the Scoping Plan have been in place since 2012.

In May 2014, CARB released its *First Update to the Climate Change Scoping Plan* (CARB 2014). This *Update* identifies the next steps for California's leadership on climate change. While California continues on its path to meet the near-term 2020 greenhouse gas limit, it must also set a clear path toward long-term, deep GHG emission reductions. This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

The 2008 Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 15 percent from today's (2010) levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman and child in California down to about 10 tons per person by 2020.

As shown in **Table 3.3-12**, the Plan is consistent with the applicable strategies of the CARB Climate Change Scoping Plan and is considered a ***less than significant*** impact.

Transformative Projects

Implementation of the proposed Plan would not hinder the state's ability to achieve AB 32's goal of achieving 1990 levels of GHG emission by 2020. The proposed Plan is consistent with the applicable strategies of the CARB Climate Change Scoping Plan and thus impacts would be considered a ***less than significant*** impact.

Mitigation Measures 3.3B-2

Even though impacts are considered less than significant, previous Mitigation Measures 3.3A-5 are recommended.

Level of Impact after Implementation of Project Mitigation 3.3B-2

The impacts of the proposed Plan would be ***less than significant.***

Unavoidable Significant Adverse Impact(s)

Impacts resulting from GHG emissions are ***unavoidable significant adverse*** impacts.

Table 3.3-12: Project Consistency with CARB Scoping Measures

Scoping Plan Measures to Reduce Greenhouse Gas Emissions	Project Compliance with Measure
California Light-Duty Vehicle Greenhouse Gas Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy
Energy Efficiency – Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	Consistent. The project will be compliant with the current Title 24 standards. 2013 Title 24 Commercial Standards are at least 30 percent more efficient than 2008 Title 24 standards and 2013 Title 24 Residential Standards are at least 25 percent more efficient than 2008 Title 24 standards for energy efficiency.
Low Carbon Fuel Standard – Develop and adopt the Low Carbon Fuel Standard.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Vehicle Efficiency Measures – Implement light-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Medium/Heavy-Duty Vehicles – Adopt medium and heavy-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Green Building Strategy – Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that are mandatory in the 2010 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The project will be subject to these mandatory standards.
High Global Warming Potential Gases – Adopt measures to reduce high global warming potential gases.	Consistent. CARB identified five measures that reduce HFC emissions from vehicular and commercial refrigeration systems; vehicles that access the project that are required to comply with the measures will comply with the strategy.
Recycling and Waste – Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	Consistent. The state is currently developing a regulation to reduce methane emissions from municipal solid waste landfills. The project will be required to comply with City programs, such as City's recycling and waste reduction program, which complies with the 75 percent reduction required in AB 341 by 2020.
Water – Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. The project will comply with all applicable City ordinances and CAL Green requirements.
Scoping Plan Measures to Reduce Greenhouse Gas Emissions	Project Compliance with Measure

Source: CARB Scoping Plan (2008)

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3.4 Noise

This section of the EIR is based on the Noise Study prepared by Kunzman Associates, Inc. in December 2015. The Noise Study is included in its entirety as **Appendix D** of this EIR. This section presents the basic noise terminology, noise sources, sensitive receptors, representative noise measurements and noise contours, existing regulations, potential impacts, and mitigation measures.

Environmental Setting

Noise Fundaments

Sound Properties

Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dB higher than another is judged to be twice as loud; and 20 dB higher four times as loud; and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud).

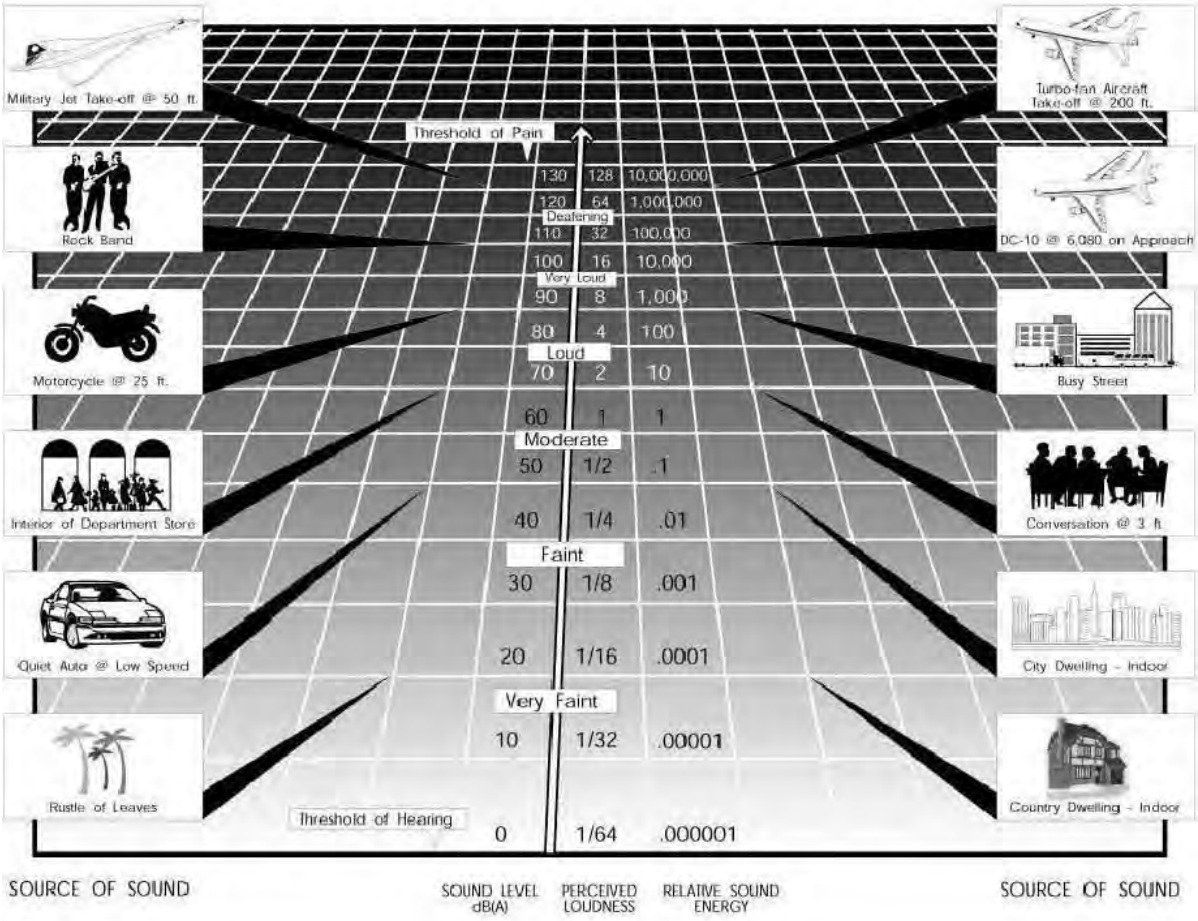
Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the A-weighted decibel. **Figure 3.4-1** provides examples of various noises and their typical A-weighted noise levels.

Noise Descriptors

There are several "descriptors" used to describe noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise are defined below.

- **L_{eq} (Equivalent Noise Level):** Average noise levels over a period of minutes or hours are usually expressed as dBA $L_{eq,}$ or the equivalent noise level for that period of time. For example, $L_{eq\ (3)}$ would represent a 3-hour average. When no period is specified, a one-hour average is assumed.
- **L_{max} (Maximum Noise Level):** The maximum instantaneous noise level during a specified period of time."
- **L_{min} (Minimum Noise Level):** The minimum instantaneous noise level during a specified period of time.
- **L_n (Statistical Descriptor):** The noise level exceeded X percent of a specific period of time. For example, L_{50} is the median noise level, or level exceeded 50 percent of the time.

- **CNEL/Ldn (Community Noise Equivalent Level/ Day-Night Average Noise Level):** CNEL is a 24-hour weighted average measure of community noise. It is obtained by adding five decibels to sound levels in the evening (7:00 PM to 10:00 PM), and by adding ten decibels to sound levels at night (10:00 PM to 7:00 AM). This weighting accounts for the increased human sensitivity to noise during the evening and nighttime hours. L_{dn} is a very similar 24-hour average measure that weights only the nighttime hours.
-



Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.4-1** **Common Noise Sources and Noise Levels**

Noise and Health Effects

Noise has been defined as unwanted sound and it is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. This criteria is based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance. Each of these potential noise impacts on people are briefly discussed in the following narratives:

Hearing loss is not a concern in community noise situations of this type. The potential for noise induced hearing loss is more commonly associated with occupational noise exposures in heavy industry or very noisy work environments. Noise levels in neighborhoods, even in very noisy airport environs, are not sufficiently loud to cause hearing loss.

Speech interference is one of the primary concerns in environmental noise problems. Normal conversational speech is in the range of 60 to 65 dBA and any noise in this range or louder may interfere with speech.

Sleep disturbance is a major noise concern for traffic noise. Sleep disturbance studies have identified interior noise levels that have the potential to cause sleep disturbance. Note that sleep disturbance does not necessarily mean awakening from sleep, but can refer to altering the pattern and stages of sleep.

Physiological responses are those measurable effects of noise on people that are realized as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent is not known to which these physiological responses cause harm or are sign of harm.

Annoyance is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capability.

Vibration Fundaments

Vibration Properties

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

Vibration Descriptors

Peak particle velocity (PPV) or the root mean square (RMS) amplitude of the vibration velocity is used to quantify vibration amplitude in this report.

Vibration Descriptors

Typically, groundborne vibration is readily perceptible at 0.08 PPV. Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration.

Construction Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. **Table 3.4-1** gives approximate vibration levels for particular construction activities. This table provides a reasonable estimate for a wide range of soil conditions.

Table 3.4-1: Construction Equipment Vibration Source Levels (Ldn), dB

Equipment	Community Noise Equivalent Level (CNEL) or Day-Night Level		
	at 25 ft.	at 50 ft.	at 100 ft.
Clam Shovel Drop (slurry wall)	**0.202**	0.071	0.025
Vibratory Roller	**0.210**	0.074	0.026
Hoe Ram	**0.089**	0.031	0.011
Large Bulldozer	**0.089**	0.031	0.011
Caisson Drilling	**0.089**	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Jackhammer	0.035	0.012	0.004
Small Bulldozer	0.003	0.001	0.0004

Source: Federal Transit Administration: Transit Noise and Vibration Impact Assessment, 2006
Note: Bold values are considered annoying to people

Existing Noise Environment

Ambient Noise Measurements

An American National Standards Institute (ANSI Section SI4 1979, Type 1) Larson Davis model LxT sound level meter was used to document existing ambient noise levels. Eight 10-minute representative noise measurements were taken between 11:37 AM and 2:18 PM on June 3, 2015. Measurement locations shown on **Figure 3.4-2** were chosen to represent a variety of existing land uses and sensitive receptors near proposed specific plan transformative areas. As shown in **Table 3.4-2**, measured ambient noise levels ranged between 58.4 dBA $_{Leq}$ and 71.4 dBA L_{eq}. Measurement output data is included in **Appendix D**.

Table 3.4-2: Measured Existing Noise Levels

Name	Measurement Period	Duration of Measurement	Description	Existing Ambient Noise Levels (dBA)					
				L_{eq}	L_{max}	L_2	L_8	L_{25}	L_{50}
NM1	11:37 AM-11:47 AM	10 min	Vehicle traffic, distant helicopter flyover, cars, skateboarders, deliveries, pedestrian conversation	60.9	81.6	67.3	63.0	60.2	57.9
NM2	11:53 AM-12:03 PM	10 min	Vehicle traffic, HVAC, trucks idling, pedestrian conversations, vehicle pass-bys, distant light aircraft flyover, church bells	63.3	85.3	69.8	66.2	60.6	55.6
NM3	12:15 PM-12:25 PM	10 min	Vehicle traffic, parking lot noise, dumpster noise, pedestrian conversations, school lunch break noise in distance.	60.1	80.7	64.4	62.1	59.0	56.2
NM4	12:35 PM-12:45 PM	10 min	Vehicle traffic, pedestrian conversations, light aircraft overflight, birds	62.7	77.2	62.7	77.2	91.9	43.6
NM5	1:00 PM-1:10 PM	10 min	Vehicle traffic, pedestrian conversation, light aircraft overflight	62.5	75.8	71.3	67.3	62.4	55.9
NM6	1:28 PM-1:38 PM	10 min	Vehicle traffic, pedestrians, nearby medium truck delivery	61.5	73.0	69.5	66.0	62.3	57.4
NM7	1:50 PM-2:00 PM	10 min	Vehicle traffic, cars starting and stopping, pedestrian conversation	59.7	73.9	69.9	62.5	58.8	54.9
NM8	2:08 PM-2:18 PM	10 min	Vehicle traffic, cars starting and stopping, pedestrian conversation	58.7	59.2	59.2	59.1	59.0	58.8

Source: Site visit, Kunzman Associates, Inc. (June 3, 2015)

Source: Kunzman Associates, Inc. DHSP Noise Study Report December 2015

Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.4-2** **Noise Measurement Locations**

Sensitive Receptors

Noise can become a problem when sources and noise sensitive land uses are located in adjacent areas. Residential uses are generally the most sensitive to noise. Other noise-sensitive land uses include schools, libraries, offices, hospitals, churches, hotels, motels, and outdoor recreational areas. Most noise impacts can be avoided when noise sources, sensitive land uses, and information about the future noise environment are considered in planning and development decisions.

Existing Noise Sources

Motor Vehicles. Existing traffic volumes were obtained from the traffic study prepared by Evans Brooks Associates, Inc. (2015). The volumes, along with speeds and traffic mixes that were used to calculate the noise levels associated with existing vehicle traffic are presented in **Appendix D.**

Vehicle noise associated with Hawthorne Boulevard and other major arterial roadways represents the major source of noise in the Plan area. Existing traffic noise levels associated with road segments in the Plan area were modeled utilizing the Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December, 1978). The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." **Table 3.4-3** presents the CNEL contours iterated over many distances until the distances to the 60, 65, 70 CNEL contours are found. Existing roadway noise contours in the Plan area are illustrated on **Figure 3.4-3**, which shows that much of the Plan area is currently exposed to noise levels below 60 dBA CNEL.

Aircraft Noise. Hawthorne Municipal Airport, also known as Jack Northrop Field, is located approximately 1,360 feet east of the Plan area. The airport runway lies in an east/west direction and small aircraft flyovers are common in the Plan area. The Hawthorne Municipal Airport is a FAA-designated general aviation reliever airport owned by the City of Hawthorne. The airport operates 24 hours a day seven days a week.

Although aircraft from the Hawthorne Municipal Airport do fly directly over the Plan area — which was confirmed during noise measurements — the Hawthorne Municipal Airport 65 dBA CNEL noise contour does not extend into to the Plan area. Noise contours lines for the Hawthorne Municipal Airport are shown **Figure 3.4-4**.

The short duration of the flyovers, the high altitude of flying aircraft, and the low intensity of the noise energy emitted by most aircraft associated with the Hawthorne Municipal Airport result in noise impacts that make minor temporary alterations to the average ambient noise level. This is likely due in some part to the adoption and implementation of the City of Hawthorne Municipal Airport VFR Noise Abatement Arrival, Departure, and Pattern Procedures; Hawthorne Municipal Airport VFR Touch and Go Landing Procedures; and Noise Abatement Procedures which include specific instructions for pilots to follow that result in less noise exposure to sensitive receptors. Full details are included in **Appendix D**.

Table 3.4-3: Modeled Existing Traffic Noise Levels (CNEL)

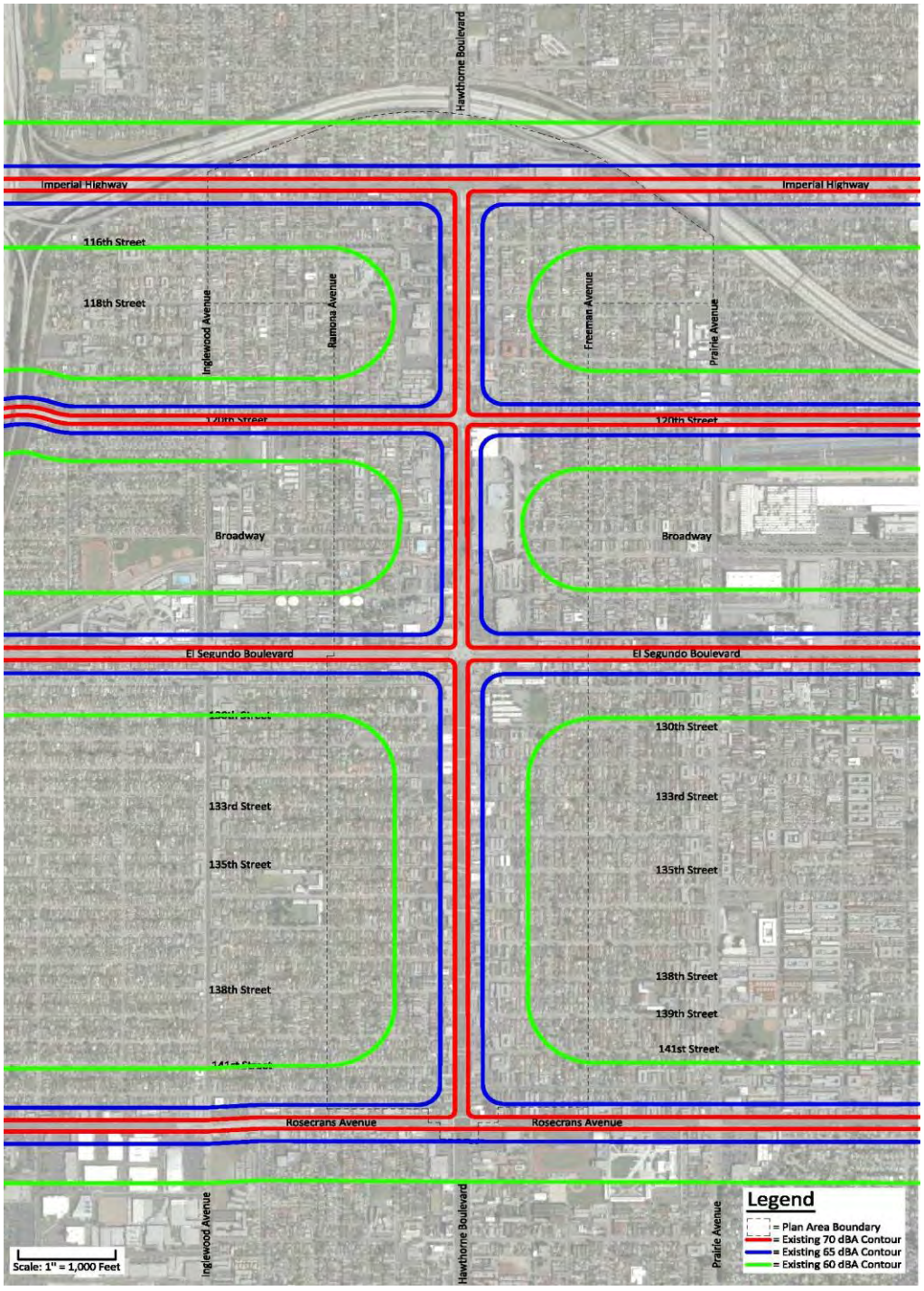
Roadway	Segment	Existing ADT	CNEL Contours (Feet from Centerline)		
			70 dBA	65 dBA	60 dBA
Hawthorne Boulevard	Imperial Highway to 120th Street	25,400	69	219	695
	120th Street to Broadway Avenue	24,950	62	197	625
	Broadway Avenue to El Segundo Blvd.	21.850	64	204	647
	El Segundo Boulevard to 139th Street	20,150	68	217	686
	139th Street to Rosecrans Avenue	25,350	69	220	695
Imperial Highway	West of Hawthorne Boulevard	0	66	210	700
	East of Hawthorne Boulevard	1,100	70	219	700
120th Street	West of Hawthorne Boulevard	2,700	47	149	462
	East of Hawthorne Boulevard	0	55	173	548
Broadway Avenue	West of Hawthorne Boulevard	25,500	3	9	28
El Segundo Boulevard	West of Hawthorne Boulevard	26,500	69	217	686
	East of Hawthorne Boulevard	27,200	71	227	718
139th Street	East of Hawthorne Boulevard	25,800	3	9	28
Rosecrans Avenue	West of Hawthorne Boulevard	26,300	64	203	642
	East of Hawthorne Boulevard	27,500	67	213	673

Source: Evan Brooks Associates, Traffic Impact Analysis, November 2015

The Los Angeles International Airport (LAX) is located just northwest of the interchange of the I-405 Freeway and I-105 Freeway and approximately one mile to the northwest of the Plan area. According to the most recent LAX Noise Contour Map (1Q 2015), the Plan area is not within the 65 dBA CNEL noise contours. As shown on **Figure 3.4-5**, the LAX 65 noise contour does not fall south of the I-105 Freeway in the vicinity of the Plan area.

Rail Noise. As illustrated on **Figure 3.4-6**, there is an existing Union Pacific Railroad Company rail line traversing the DHSP area in an east/west direction generally running between Broadway Avenue and 126th Street. On average, one freight train travels west-bound on the rail line per day between the hours of 10:00 AM and 11:00 AM, and returns east-bound between the hours of 1:00 PM and 2:00 PM. According to the most recent Federal Railroad Administration Inventory Data sheets, typical train speed ranges between 5 and 15 miles per hour. Although train pass by noise levels may reach up to 83 dBA (15 minute L_{eq}) and 104 dBA L_{max}[1] at distance of 75 feet (Kunzman 2015), two train pass bys per day do not substantially increase the CNEL in the Plan area.

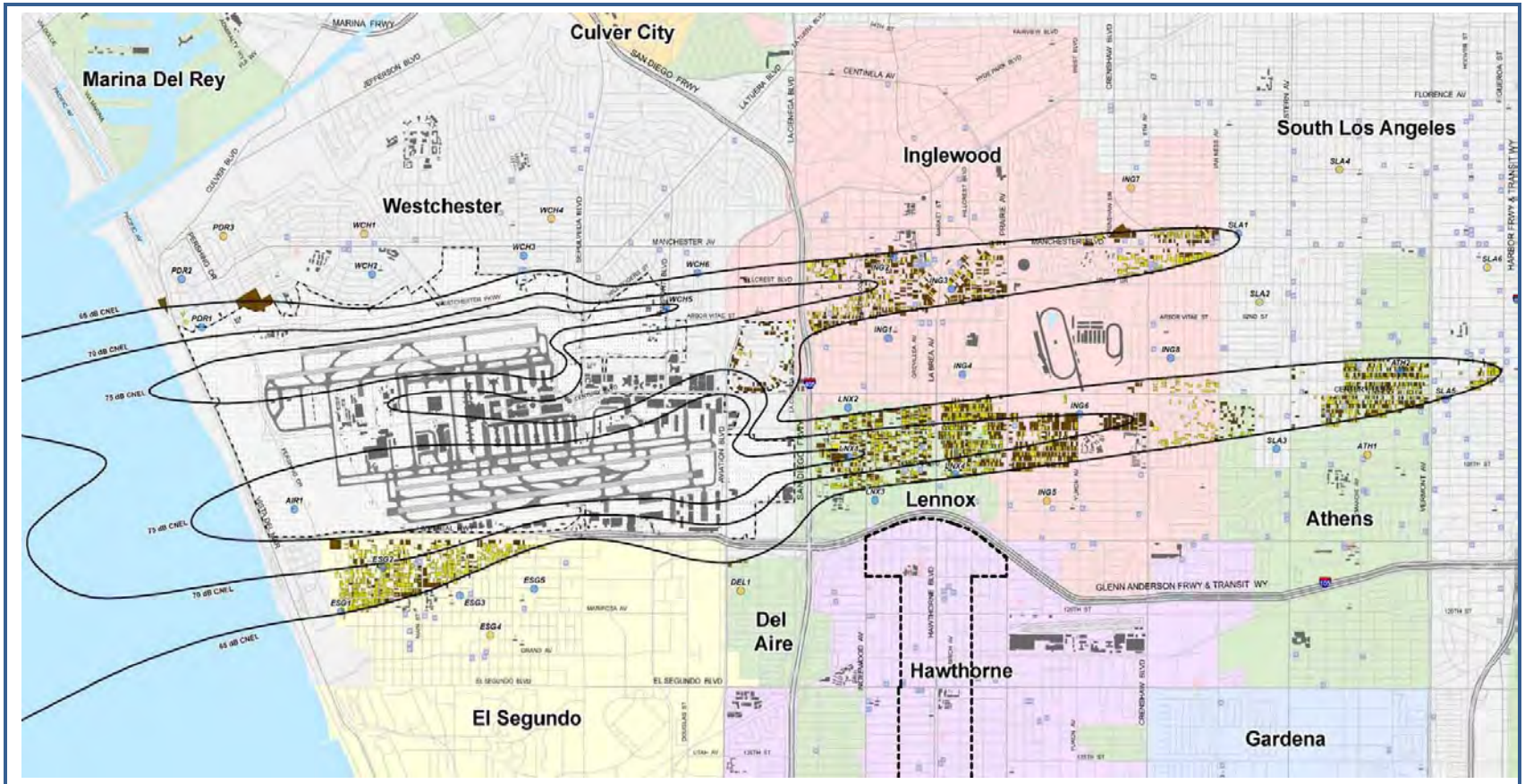
[1] *As measured by Kunzman Associates, Inc. staff near Mission Avenue in the City of Riverside approximately 75 feet from the rail line.*



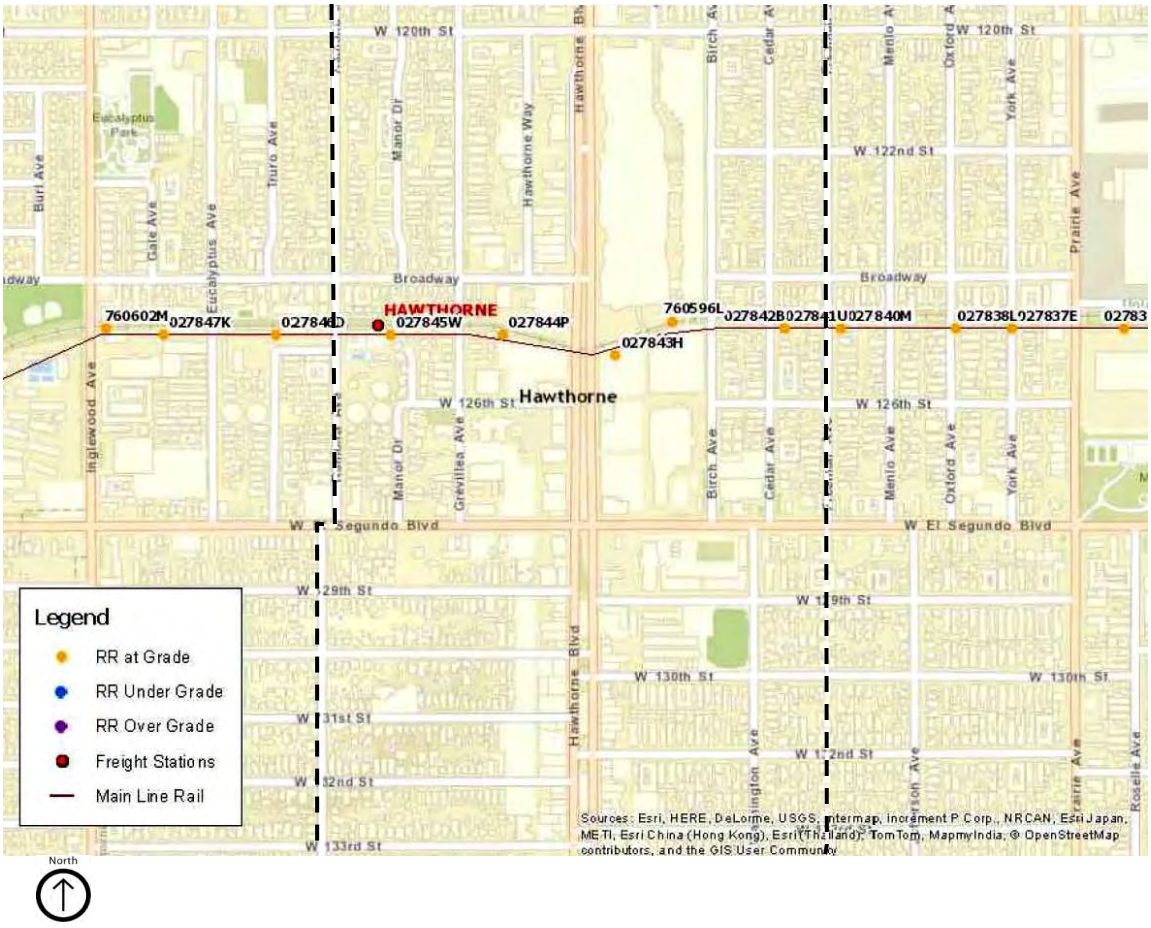
Source: Kunzman Associates, Inc. DHSP Noise Study Report December 2015

Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.4-3** **Existing Roadway Noise Contours**

Downtown Hawthorne Specific Plan ***Draft EIR***	**Figure 3.4-4** **Hawthorne Municipal Airport Noise Contours**



Downtown Hawthorne Specific Plan ***Draft EIR***	**Figure 3.4-5** **LAX - Noise Contours**



Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.4-6 Union Pacific Railroad Line**

Stationary Noise Sources. Stationary noise sources can include commercial and industrial activities, loudspeakers, car alarms, loud music, and noise generated from large gathering and typical residential neighborhood sounds such as lawnmowers, children at play, and barking dogs. In Hawthorne, the noise impacts from these sources are mostly outweighed by traffic-related noise.

Regulatory Framework

Federal Regulations

Federal Noise Control Act of 1972

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. After its inception, EPA's Office of Noise Abatement and Control issued the Federal Noise Control Act of 1972, establishing programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In response, the EPA published Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (Levels of Environmental Noise). The Levels of Environmental Noise recommended that the Ldn should not exceed 55 dBA outdoors or 45 dBA indoors to prevent significant activity interference and annoyance in noise-sensitive areas.

In addition, the Levels of Environmental Noise identified five dBA as an "adequate margin of safety" for a noise level increase relative to a baseline noise exposure level of 55 dBA Ldn (i.e., there would not be a noticeable increase in adverse community reaction with an increase of five dBA or less from this baseline level). The EPA did not promote these findings as universal standards or regulatory goals with mandatory applicability to all communities, but rather as advisory exposure levels below which there would be no risk to a community from any health or welfare effect of noise.

In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at lower levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to State and local governments. However, noise control guidelines and regulations contained in EPA rulings in prior years remain in place by designated Federal agencies, allowing more individualized control for specific issues by designated Federal, State, and local government agencies.

State Regulations

State of California Building Standards Code

The State of California has adopted noise standards in areas of regulation not preempted by the Federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation. Title 24 of the California Code of Regulations, also known as the California Building Code, establishes building standards applicable to all occupancies throughout the state. The code provides acoustical regulations for both exterior-to-interior sound insulation, as well as sound and impact isolation between adjacent spaces of various occupied units. Title 24 regulations state that interior noise levels generated by exterior noise sources shall not exceed 45 dBA Ldn/CNEL, with windows closed, in any habitable room for multi-family residential uses.

California Building Code Section 1208A, Sound Transmission, of the Building Code requires acoustical evaluation and insulated building design and construction when exterior noise levels exceed 60

Ldn/CNEL. New residential construction must be acoustically designed and constructed to reduce the intrusion of transportation noise and local fixed noise sources. The California Building Code requires a minimum Sound Transmission Class of 50 (STC50) and Impact Isolation Class 50 (IIC50) for multiple family residential units located where exterior noise levels exceed 60 Ldn/CNEL.

The non-residential mandatory measures found in Title 24, Part 11, Section 5.507.4.1 of the California Code of Regulations requires the use of wall and roof-ceiling assemblies that make up the building envelope to have an STC of at least 50 and exterior windows must have minimum STC of 30 for any of the following building locations:

1. Within 1,000 ft (300 m) of right of ways of freeways.
2. Within 5 miles (8 km) of airports serving more than 10,000 commercial jets per year.
3. Where sound levels at the property line regularly exceed 65 decibels, other than occasional sound due to church bells, train horns, emergency vehicles and public warning systems.

Buildings with few or no occupants and where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings are exempt from this section of code.

State of California General Plan Guidelines 2003

Though not adopted by law, the State of California General Plan Guidelines 2003, published by the California Governor's Office of Planning and Research (OPR) (OPR Guidelines), provide guidance for the compatibility of projects within areas of specific noise exposure. The OPR Guidelines identify the suitability of various types of construction relative to a range of outdoor noise levels and provide each local community some flexibility in setting local noise standards that allow for the variability in community preferences. Findings presented in the Levels of Environmental Noise Document (EPA 1974) influenced the recommendations of the OPR Guidelines, most importantly in the choice of noise exposure metrics (i.e., Ldn or CNEL) and in the upper limits for the Normally Acceptable outdoor exposure of noise-sensitive uses. The OPR Guidelines include a Noise and Land Use Compatibility Matrix which identifies acceptable and unacceptable community noise exposure limits for various land use categories. As discussed below, the City of Hawthorne has included their own version of this table in the Noise Element of their General Plan.

California Environmental Quality Act

The California Environmental Quality Act Guidelines (Appendix G) establishes thresholds for noise impact analysis. Two of these standards apply to what is referred to as a "substantial increase" in ambient noise levels. The city does not have a definition of a substantial increase, nor does CEQA establish a numerical value for this threshold. Noise generated by transportation sources propagates differently than noise generated by point sources. Therefore, for purposes of this analysis, the following two thresholds were utilized to evaluate the project's potential to result in substantial increases in ambient noise levels.

Traffic Noise. Roadway noise impacts would be considered significant if the project increases noise levels at a noise sensitive land use by 3 dBA CNEL and if: (1) the existing noise levels already exceed the residential land use compatibility standard for "normally acceptable" (65 dBA CNEL), or (2) the project increases noise levels from below the 65 dBA CNEL standard to above 65 dBA CNEL.

Stationary Noise. Project operations, including noise from car wash equipment and trucks, may produce an increase noise levels which disturbs the peace and quiet of adjacent residential areas or cause discomfort/annoyance to area residents. Caltrans considers a 5 dBA increase to be "readily audible", which seems to correlate most closely to "substantial increase." For the purposes of this report, a substantial permanent increase in ambient noise levels due to stationary noise sources shall be considered 5 dBA L_{eq}.

Local Regulations

Hawthorne General Plan Noise Element

Land Use Compatibility. The General Plan noise Element includes land use planning tools to reduce future noise related land use incompatibilities. These include criteria that specify acceptable limits of noise for various land uses throughout the city. These criteria are designed to integrate noise considerations into land use planning to prevent noise/land use conflicts. **Table 3.4-4** presents criteria used to assess the compatibility of proposed land uses with the noise environment. These criteria are the basis for the development of specific Noise Standards, shown in **Table 3.4-5**. These tables are the primary tools which allow the city to ensure integrated planning for compatibility between land uses and outdoor noise.

The city has also established goals, policies and objectives regarding noise within the community. It is recommended that the city review these goals and policies and either confirm that they are appropriate for the DHSP or if new policies should be developed specifically for the DHSP.

Goal 1. Provide for the reduction of noise where the noise environment is unacceptable

Policy 1.1 Provide for measures to reduce noise impacts from transportation noise sources. These measurements include:

- Construct barriers to mitigate sound emissions where necessary or where feasible. Actively participate in the development of noise abatement plans for freeways and rapid transit.
- Ensure the inclusion of noise mitigation measures in the design of new roadway projects in Hawthorne.
- Reduce transportation noise through proper design and coordination of routing.
- Ensure the effective enforcement of city, State and Federal noise levels by all appropriate city divisions.
- Mitigate potential impacts for existing or proposed helicopter operations.
- Explore noise control programs as part of the Hawthorne Airport Master Plan to minimize noise levels from these operations.

- To help minimize noise impacts from Los Angeles International Airport, actively support the FAA Part 150 Noise Compatibility Program as described in the "Noise Control and L:and Use Compatibility Study, Los Angeles International Airport" (March 1984).

Goal 2. Protect and maintain those areas having acceptable noise environments

Policy 2.1 Incorporate noise considerations into land use planning decisions. These measures will be achieved through the following programs:

- Establish acceptable limits of noise for various land uses throughout the community. Zoning changes should be consistent with the compatibility of the projected noise environment.
- Ensure acceptable noise levels near schools, hospitals, convalescent homes, and other noise sensitive areas.
- Establish standards for all types of noise not already governed by local ordinances or permitted by state or federal law.
- Encourage acoustical design in new construction.

Goal 3. Provide sufficient information concerning the community noise levels so that noise can be objectively considered in land use planning decisions.

Policy 3.1 The city shall develop measures to control non-transportation noise impacts.

Policy 3.2 The city shall establish a new Community Noise Ordinance to mitigate noise conflicts.

Policy 3.3 The city shall evaluate noise generated by construction activities.

Policy 3.4 Establish and maintain coordination among the city agencies involved in noise abatement.

Hawthorne Municipal Ordinance

The City has adopted several ordinances intended to control and enforce community noise. The following is a summary of ordinances that the City may want to consider while developing appropriate noise/land use policies for the DHSP. If any seem inappropriate or inadequate for the DHSP, policies can be incorporated in the DHSP to supersede existing city ordinances.

9.34.020 Amplified sound. No person shall knowingly or wantonly use or operate, in or upon private property, any mechanical device, machine, apparatus or instrument for the intensification or amplification of the human voice or other sound in such manner as to disturb the peace, quiet and comfort of the neighboring inhabitants. (Prior code § 8-404.)

Table 3.4-4: Hawthorne Land Use Compatibility Matrix

Land Use Categories		Community Noise Equivalent Level (CNEL)						
Categories	Uses	<55	60	65	70	75	80>	
RESIDENTIAL	Single Family, Duplex, Multiple Family	A	A	B	B	C	D	D
RESIDENTIAL	Mobile Home	A	A	B	C	C	D	D
COMMERCIAL: Regional District	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
COMMERCIAL: Regional, Village District, Special	Commercial Retail, Bank, Restaurant, Movie Theater	A	A	A	A	B	B	C
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
COMMERCIAL: Recreation INSTITUTIONAL: Civic Center	Ampitheater, Concert Hall, Auditorium, Meeting Hall	B	B	C	C	D	D	D
COMMERCIAL: Recreation	Childrens Amusement Park, Miniture Golf Course, Go-cart Track, Equestrian Center, Sports Club	A	A	A	B	B	D	D
COMMERCIAL: General, Special INDUSTRIAL INSTITUTIONAL	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
INSTITUTIONAL: General	Hospital, Church, Library, School Classroom	A	A	B	C	C	D	D
OPEN SPACE	Parks	A	A	A	B	C	D	D
OPEN SPACE	Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat	A	A	A	A	B	C	C
AGRICULTURE	Agriculture	A	A	A	A	A	A	A

Source: City of Hawthorne General Plan 1989

Zone A Clearly Incompatible	*Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.*
Zone B Normally Compatible	*New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems of air conditioning, will normally suffice.*
Zone C Normally Incompatible	*New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.*
Zone D Clearly Incompatible	*New Construction or development should generally not be undertaken.*

Table 3.4-5: Hawthorne Interior and Exterior Noise Standards

Land Use Categories		CNEL (dBA)	
Categories	**Uses**	**Interior[1]**	**Exterior[2]**
RESIDENTIAL	Single and Multiple Family Complex	45[3]	65
	Mobile Homes	---	65[4]
COMMERCIAL	Hotel, Motel, Transient Housing	55	65[5]
	Commercial Retail, Bank, Restaurant	50	---
	Office Building, Research and Development, Professional Office	45	---
	Amphitheatre, Concert Hall, Auditorium, Meeting Hall	50	---
	Gymnasium (Multipurpose)	55	---
	Sports Club\Manufacturing, Warehousing, Wholesale, Utilities	65	---
	Movie Theaters	45	---
INSTITUTIONAL/ PUBLIC	Hospital, School classrooms/Playgrounds	45	65
	Church, Library	45	---
OPEN SPACE	Parks	---	65

Source: City of Hawthorne General Plan 1989

(1) Indoor environment excluding: bathrooms, toilets, closets, corridors.

(2) Outdoor environment limited to:

- *Private yard of single-family dwellings*
- *Multiple-family private patios or balcony which is served by a means of exits from inside*
- *Mobile home parks*
- *Hotel and motel recreation area*
- *Park picnic areas*
- *School playgrounds*
- *Hospital patios*

(3) Noise level requirement with closed windows, mechanical ventilation or other means of natural ventilation shall be provided as per Chapter 12, Section 1205 of the Uniform Building Code.

(4). Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

(5). Except those areas affected by aircraft noise

9.35.010 Disturbances caused by loud, unnecessary and unusual noise. Notwithstanding any other provisions of this code and in addition thereto, it shall be unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary and unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area.

The standard which may be considered in determining whether a violation of the provisions of this section exists may include, without limitation, the following:

A. The level of noise;
B. Whether the nature of the noise is usual or unusual;
C. Whether the origin of the noise is natural or unnatural;
D. The level and intensity of the background noise;
E. The proximity of the noise to residential sleeping facilities;
F. The nature and zoning of the area within which the noise emanates;
G. The density of the inhabitation of the area within which the noise emanates;
H. The time of the day and night the noise occurs;
I. The duration of the noise;
J. Whether the noise is recurrent, intermittent, or constant; and
K. Whether the noise is produced by a commercial or noncommercial activity.

12.16.300 Noise, dust and debris. Each permittee shall conduct and carry out excavation work in such manner as to avoid unnecessary inconvenience and annoyance to the general public and occupants of neighboring property. The permittee shall take appropriate measure to reduce to the fullest extent practicable in the performance of the excavation work, noise, dust and unsightly debris and during the hours of ten p.m. and seven a.m. shall not use, except with the express written permission of the city engineer or in case of an emergency as herein otherwise provided, any tool, appliance or equipment producing noise of sufficient volume to disturb the sleep or repose of occupants of the neighboring property.

17.20.270 Noise

As discussed below, Municipal Ordinance 17.20.270 sets forth development standards intended to minimize noise impacts.

A. Shock Mounting of Mechanical Equipment. All permanent mechanical equipment such as motors, compressors, pumps and compactors which, because of its rotation, reciprocation, expansion and/or contraction, turbulence, oscillation, pulsation, impaction or detonation, is determined by the director of building and safety to be a source of structural vibration or structure-borne noise shall be shock mounted with inertia blocks or bases and/or vibration isolators in a manner approved by the director of building and safety. Domestic appliances which are cabinet installed or built into the individual units, such as dishwashers, garbage disposals, trash compactors, clothes washers and dryers, exhaust fans or other appliances which are determined by the director of building and safety to be a source of structural

vibration or structure-borne noise, shall be isolated from cabinets and the floor or ceiling by resilient gaskets and vibration mounts approved by the director of building and safety. The cabinets in which they are installed shall be offset from the back wall with strip gasketing of felt, cork or similar material approved by the director. Where such appliances utilize water, flexible connectors shall be installed on all waterlines. If provision is made with the units for the installation of nonpermanent appliances such as clothes washers and dryers then permanent rubber mounting bases and surface plates shall be installed in a manner approved by the director of building and safety.

B. Location of Plumbing Fixtures. No plumbing fixture shall be located on a common wall between two individual units.

C. Separation of Vents and Drain Lines. No common vents or drain lines shall be permitted for contiguous units until there is at least ten feet of pipe between the closest plumbing fixtures within the separate units.

D. Isolation and Insulation of Water and Drainage Lines.

1. All water supply lines within the project shall be isolated from wood, metal and other framing with pipe isolators specifically manufactured for that purpose and approved for use by the director of building and safety.

2. All vertical drainage lines within the project shall be isolated from touching wood, metal and other framing and all drainage pipes shall be surrounded by one inch of dense insulation board. Where vents and drain lines exist, the horizontal and vertical cavity shall be a minimum of six inches thick construction.

E. Attenuation of Noise.

1. General. Wall and floor/ceiling assemblies separating units from each other or from public or quasi-public spaces such as interior corridors, laundry rooms, recreation rooms, parking areas, etc., shall provide airborne sound insulation for walls, and both airborne and impact sound insulation for floor/ceiling assemblies.

2. Air-Borne Sound Insulation. All walls and floor/ceiling assemblies, except those directly over parking areas, shall be of a type of construction that has a minimum rating of 50 STC (sound transmission class) based on tests performed by a recognized and approved testing laboratory; openings in the construction for piping, electrical outlets and devices, recess cabinets, bathtubs, soffits, heating and ventilation, and/or air conditioning in-take and exhaust ducts, and the like shall be sealed, lined, insulated or otherwise treated to maintain the required rating and such treatment shall be approved by the director of building and safety. Entrance doors to the unit shall be of solid construction and, together with perimeter seals, shall have a minimum rating of 33 STC. Such perimeter seals shall be maintained in effective operating condition.

3. Impact Sound Insulation. All separating floor/ceiling assemblies, except those directly over parking areas, shall be of a type of construction that has a minimum rating of 50 IIC (impact insulation class) based upon tests performed by a recognized and approved testing laboratory.

F. Special Noise Sources.

1. Radios, Television Sets and Similar Devices. It is unlawful for any person within any residential zone of the city to use or operate any radio receiving set, musical instrument, phonograph, television set or other machine or device for the producing or reproducing of sound, between the hours of ten p.m. of one day and seven a.m. of the following day, in such a manner as to disturb the peace, quiet, and comfort of neighboring residents or any reasonable person of normal sensitivity residing in the area. Any noise exceeding the ambient noise level at the property line of any property or, in the case of a condominium or apartment house unit, within any adjoining apartment, by more than five decibels shall be deemed to be prima facie evidence of a violation of the provisions of this section.
2. Machinery, Equipment, Fans and Air Conditioning. It is unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than five decibels. This section shall not apply to the performance of emergency work.
3. For purposes of this section, the ambient noise level shall not be less than the following levels. If the measured ambient noise level exceeds these levels, then the level actually measured shall be used as the "ambient noise level."

Time	Decibels
10:00 PM to 7:00 AM	50 dBA
7:00 AM to 10:00 PM	60 dBA

Standard of Significance

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- A substantial temporary or periodic increase in ambient noise levels the project vicinity above levels existing without the project?
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Impacts and Mitigation Measures

Impact 3.4-1 Short-Term Demolition and Construction

Specific Plan

Construction noise represents a short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. Demolition and grading activities will have similar noise levels. Therefore, short-term noise associated with demolition and construction activities is considered a ***significant*** impact.

Examples of construction noise at 50 feet are presented on **Table 3.4-6**. The maximum noise level for most of the equipment that will be used during the construction is 70 to 95 dBA at a distance of 50 feet. Stationary noise typically attenuates by 6 dB for every doubling of distance from the receiver. At 100 feet maximum construction noise levels can be expected to range between 64 and 89 dBA L_{max}; and at 200 feet maximum construction noise levels range from 58 to 83 dBA L_{max}. Note that these noise levels are based upon worst-case conditions. Typical construction noise levels shown in **Table 3.4-6** will be used as the basis for the estimates presented here and represent a worst-case estimate. Although construction activities may occur anywhere within the DHSP, the impacts associated with this analysis are focused on construction activities associated with development of the proposed Transformative Projects. It should be noted that Municipal Code 12.16.300 prohibits the use of any tool, appliance or equipment that produces noise of sufficient volume to disturb the sleep or repose of occupants of the neighboring property between the hours of 10:00 PM and 7:00 AM, except with the express written permission of the City engineer or in case of an emergency; requires that excavation work to be performed in such manner as to avoid unnecessary inconvenience and annoyance to the general public and occupants of neighboring property; and requires that appropriate measures are implemented to reduce to the fullest extent practicable in the performance of excavation work.

Transformative Projects

The purpose of the Hawthorne Mall Transformative Project (T1) is to create a pedestrian-oriented district that serves as a central retail and dining destination for Downtown Hawthorne. It will front on Hawthorne Boulevard and encompass approximately 26 acres. Development of this project is expected to utilize the existing parking structure located along Birch Avenue south of the rail line, while all existing structures north of the rail line to 120th Street will be demolished.

The use of construction equipment associated with the improvements of the T1 site may result in short-term construction noise impacts of up to 82 to 84 dBA Leq at the closest sensitive receptor from the Hawthorne Mall property line (70 feet). Existing residential land uses located to the north and east of T1 may be subjected to short-term construction noise impacts, and is therefore considered a ***significant*** impact.

Uses in close proximity to the other three Transformative Projects (T2, T3, and T4) may be subject to short-term construction noise impacts that could occur with the development of the Transformative

Projects. Construction noise may range between 70 to 95 dBA at a distance of 50 feet. Specific noise levels that may result due to construction will depend on the type of equipment and the proximity of the equipment to the sensitive receptors. This is considered a ***significant*** impact.

Table 3.4-6: Typical Construction Equipment Noise Levels

Type of Equipment	Sound Level Measured (dBA at 50 Ft.)	Suggested Maximum Sound Levels of Analysis (dBA at 50 Ft.)
Rock Drills	83-99	96
Jack Hammers	75-85	82
Pneumatic Tools	78-88	85
Pumps	74-84	80
Dozers	77-90	85
Scrapers	83-91	87
Haul Trucks	83-94	88
Cranes	79-86	82
Portable Generators	71-87	80
Rollers	75-82	80
Tractors	77-82	80
Front-End Loaders	77-90	86
Hydraulic Backhoe	81-90	86
Hydraulic Excavators	81-90	86
Graders	79-89	86
Air Compressors	76-89	86
Trucks	81-87	86

Source: Bolt, Beranek & Newman; Noise Control for Buildings and Manufacturing Plants, 1987.

Mitigation Measures 3.4-1

Demolition and construction noise could result in significant impacts to nearby residences if uncontrolled. The most effective method of controlling construction noise is through limiting construction hours. In addition to adherence to allowed construction hours outlined in Municipal Ordinance 12.16.300, the following mitigation measures should be implemented.

- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (7:00 AM and 10:00 PM Monday through Saturday).
- To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings and should avoid using alleyways adjacent to said uses.
- The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices.
- During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.
- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest to the project site during all project construction.
- The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest to the project site.
- The use of vibratory equipment shall be avoided or minimized within 25 feet of existing vibration-sensitive land uses.
- If vibratory equipment must be used within 25 feet of an existing structure, vibration monitoring shall be conducted and work shall be halted and re-evaluated if vibratory levels nears 0.20 PPV, which is the standard established to protect structures.
- In order to minimize impacts to adjacent residential land uses adjacent to the Hawthorne Mall, a demolition and construction noise study and mitigation and monitoring plan shall be prepared. The noise study shall include acoustical modeling utilizing forthcoming details regarding the type, location and duration of use of each piece of equipment; truck trips and routes and staging areas. In addition to the above listed mitigation measures temporary noise walls will likely be necessary.

Level of Impact After Implementation of Mitigation Measure 3.4-1

The residual impact following implementation of the recommended Mitigation Measures for 3.4-1 would be ***less than significant***.

Impact 3.4-2 Long-Term Plan-Generated Traffic Noise

Specific Plan

Table 3.4-7 shows the expected incremental traffic noise level increases on road segments in the project area with and without implementation of the Plan. These noise level increases were calculated using traffic volumes presented in the previously referenced traffic study prepared for the project by Evan Brooks Associates, Inc. (2015). The City of Hawthorne does not have published vehicle/truck mixes or Day/Evening/Night (D/E/N) splits published for use in acoustical studies. Vehicle/truck mixes and D/E/N splits for use in acoustical studies published by the Riverside County Department of Industrial Hygiene were utilized for noise modeling. FHWA traffic modeling output is presented in **Appendix D**.

As can been seen in the column entitled "Increase" in **Table 3.4-7**, Plan-generated traffic noise will not result in noise increases of 3 dB or greater along road segments acoustically affected by project generated increases in ambient noise levels. Implementation of the DHSP will not result in substantial increases in ambient noise levels related to increases in vehicle traffic, and is therefore considered a ***less than significant*** impact.

Transformative Project

Impacts of the four Transformative Projects are the same as those found for the Specific Plan area. Long-term traffic noise impacts are considered ***less than significant***.

Mitigation Measures 3.4-2

No mitigation measures are required.

Level of Impact After Implementation of Mitigation Measure 3.4-2

No mitigation measures required and Impact 3.4-2 remains ***less than significant***.

Table 3.4-7: Comparison of Existing and Existing Plus Project Traffic Noise Levels

Roadway	Segment	Distance from roadway centerline to receiver (feet)	Modeled Noise Levels (dBA CNEL)			
			Existing	Existing Plus Project	Increase	Substantial Increase
I-405 NB/SB On-Off Ramps	North of El Segundo Boulevard	50	61.76	62.67	+ 0.91	NO
	South of El Segundo Boulevard	50	66.72	67.04	+ 0.32	NO
Inglewood Avenue	North of Imperial Hwy	50	62.09	62.38	+ 0.29	NO
	Imperial Hwy to 120th Street	50	61.98	62.28	+ 0.30	NO
	120th to El Segundo Boulevard	50	63.29	64.16	+ 0.87	NO
	El Segundo Boulevard to Rosecrans Avenue	50	63.8	64.26	+ 0.46	NO
	South of Rosecrans Avenue	50	63.42	63.64	+ 0.22	NO
Hawthorne Boulevard	North of Lennox Boulevard	50	64.71	64.84	+ 0.13	NO
	Lennox Boulevard to I-105 WB Off-Ramp	50	65.23	65.37	+ 0.14	NO
	I-105 WB Off-Ramp to Imperial Hwy	50	63.99	64.32	+ 0.33	NO
	Imperial Hwy to 120th Street	50	64.21	64.90	+ 0.69	NO
	120th Street to Broadway	50	63.83	64.96	+ 1.13	NO
	Broadway to El Segundo Boulevard	50	63.94	65.37	+ 1.43	NO
	El Segundo Boulevard to Rosecrans Avenue	50	64.24	65.04	+ 0.80	NO
	Rosecrans Avenue to Marine Avenue	50	64.47	65.10	+ 0.63	NO
	South of Marine Avenue	50	64.78	65.11	+ 0.33	NO
Prairie Avenue	North of I-105 EB Off-Ramp	50	65.95	66.13	+ 0.18	NO
	I-105 EB Off-Ramp to Imperial Hwy	50	66.10	66.40	+ 0.30	NO
	Imperial Hwy to 120th Street	50	65.31	65.52	+ 0.21	NO
	South of 139th Street	50	65.89	66.06	+ 0.17	NO
I-105 WB off-ramp	East of Hawthorne Boulevard	50	71.79	71.89	+ 0.10	NO
Imperial Hwy	West of Hawthorne Boulevard	50	64.29	64.43	+ 0.14	NO
	Hawthorne Boulevard to I-105 EB On-Ramp	50	64.29	64.56	+ 0.27	NO
	I-105 EB On-Ramp to Prairie Avenue	50	64.65	64.81	+ 0.16	NO
	East of Prairie Avenue	50	64.47	64.51	+ 0.04	NO
120th Street	West of Inglewood Avenue	50	63.11	63.45	+ 0.34	NO
	Inglewood Avenue to Hawthorne Boulevard	50	63.73	64.37	+ 0.64	NO
	Hawthorne Boulevard to Birch Avenue	50	64.37	64.77	+ 0.40	NO
	Birch Avenue to Prairie Avenue	50	63.73	64.31	+ 0.58	NO
	East of Prairie Avenue	50	64.57	64.82	+ 0.25	NO
El Segundo Boulevard	West of I-405 NB On-Off-Ramp	50	67.05	67.46	+ 0.41	NO
	I-405 NB On-Off-Ramp to Inglewood Avenue	50	66.32	66.95	+ 0.63	NO
	Inglewood Avenue to Hawthorne Boulevard	50	65.91	66.42	+ 0.51	NO
	Hawthorne Boulevard to Birch Avenue	50	65.67	66.30	+ 0.63	NO
	East of Birch Avenue	50	65.81	66.37	+ 0.56	NO
139th Street	East of Hawthorne Boulevard	50	49.49	51.53	+ 2.04	NO
Rosecrans Avenue	West of Inglewood Avenue	50	65.52	65.72	+ 0.20	NO
	Inglewood Avenue to Hawthorne Boulevard	50	65.83	66.11	+ 0.28	NO
	East of Hawthorne Boulevard	50	65.52	65.83	+ 0.31	NO

Source: Kunzman Associates, Inc. DHSP Noise Study Report December 2015

Impact 3.4-3 Traffic Noise Exposure to the DHSP

Specific Plan

There are several busy arterial roadways in the DHSP area that will accommodate most of the vehicle traffic. As discussed previously, the FHWA Noise Model was utilized to calculate future noise levels (Year 2020 and Year 2035) associated with vehicle traffic travelling on roads in the Plan area. The distances from the centerline to the 60, 65, and 70 CNEL contours for each of the acoustically significant roadways within the Plan area were calculated and are shown on **Figures 3.4-7 and 3.4-8**. Note that the contours do not include the shielding effects of buildings, topography, or sound barriers that would lower the noise levels from what is shown on **Figures 3.4-7 and 3.4-8**, and therefore represent a worst-case estimate. The distances from affected road segment centerlines to each noise contour are presented in **Table 3.4-9**. FHWA spreadsheets utilized to calculate the location of noise contours are included in **Appendix D.**

As shown on **Figures 3.4-7 and 3.4-8**, future noise levels (2020 and 2035, respectively) are expected to reach up to 65-70 dBA CNEL at the existing and proposed land uses along Hawthorne Boulevard, Imperial Highway, 120th Street, Broadway Avenue, El Segundo Boulevard, 139th Street and Rosecrans Avenue. The majority of affected land uses along Hawthorne Boulevard are and will be commercial land uses. As shown in previous **Table 3.4-5**, the City has not adopted exterior noise level limits for commercial land uses. Interior noise levels standards for commercial land uses range between 45-65 dBA CNEL depending on the type of commercial use. Residential land uses along the primary east/west roadways in the DHSP listed above, will be exposed to noise levels of up to 70 dBA CNEL and may exceed the exterior noise level limit for residential land uses or the 45 dBA CNEL interior noise level limit for interior noise levels, depending on the distance of the receptor from the roadway. Outdoor use areas (i.e., backyards) should be shielded from vehicle noise whenever possible. Long-term traffic noise exposure to the Plan area is considered potentially ***significant*** impacts.

Transformative Project

The noise impact analysis for 2020 are discussed above and the impacts on the four Transformative Projects are the same as those found for the Specific Plan area. Long-term traffic noise exposure to the Plan area is considered potentially ***significant*** impact.

Mitigation Measures 3.4-3

- New non-residential development shall be constructed with roof-ceiling assemblies that make up the building envelope to have an STC of at least 50 and exterior windows must have minimum STC of 30 where sound levels at the property line regularly exceed 65 decibels. This measure would reduce interior noise levels to acceptable levels and mitigate any impact to less than significant.

  Buildings with few or no occupants and where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings are exempt from this measure.

- Prior to issuance of building permits for residential land uses located within a 65 dBA CNEL noise contour as shown on **Figure 3.4-7**, a detailed noise assessment shall be prepared to show that noise levels in those areas will not exceed the 65 CNEL outdoor noise criteria and the 45 CNEL indoor noise standard. The noise assessment shall be prepared by a qualified acoustical consultant and shall document the sources of noise impacting the areas and describe any measures required to meet the standard. These measures will be incorporated into the project plans. The report shall be completed and approved by the City prior to issuance of building permits.

Level of Impact After Implementation of Mitigation Measure 3.4-3

The residual impact following implementation of the recommended Mitigation Measures for 3.4-3 would be ***less than significant***.

Impact 3.4-4 Long-Term Operational Noise

Specific Plan

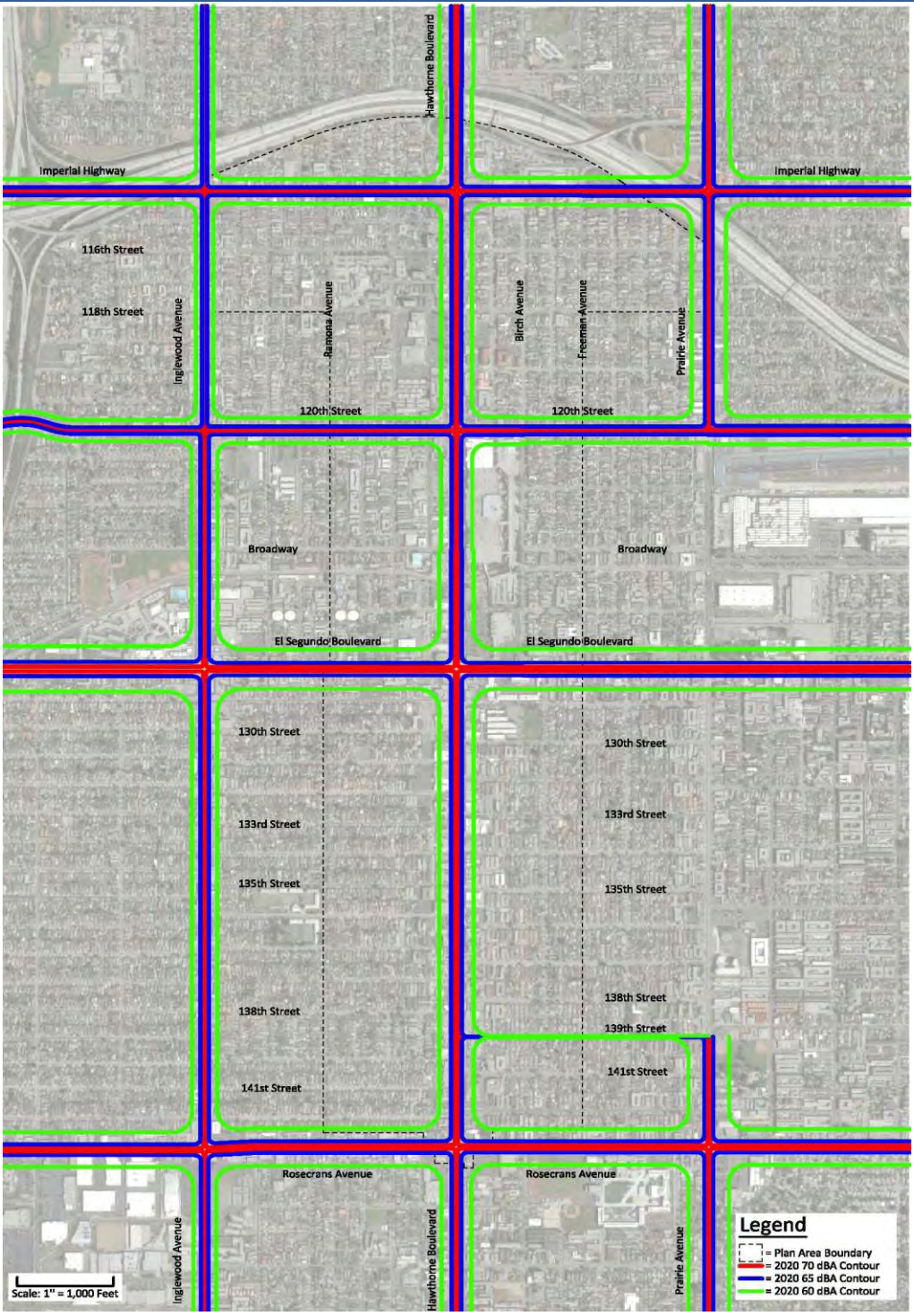
In addition to roadway traffic noise impacts discussed above, on-site activities associated with existing retail, commercial and public land uses, and proposed Transformative Project areas have the potential to impact both on-site and off-site sensitive receptors. Specifically, the activities associated with retail, office, and business park establishments are parking lot noise, air conditioning units, delivery trucks, loading and unloading.

Instantaneous sound events generated by car door slamming, engine start-ups, alarm activation and car pass-bys associated with parking lots will not be of sufficient volume to exceed community noise standards that are based on a time average scale such as the CNEL scale. Estimates of the maximum noise levels associated with some parking lot activities are presented in **Table 3.4-8**. These noise levels, which are based on measurements conducted at a distance of 50 feet from the source are considered the maximum noise levels generated. A range is given to reflect the variability of noise generated by various automobile types and driving styles. Due to the unavailability of detailed plans, the exact locations of all parking lots within the boundaries of each property are not yet known. For the purposes of determining worst-case noise impacts to residences due to parking lot related activities, it will be assumed that a parking lot could be located anywhere within the confines of the property containing the parking lot.

Table 3.4-8: Comparison of Existing and Existing Plus Project Traffic Noise Levels

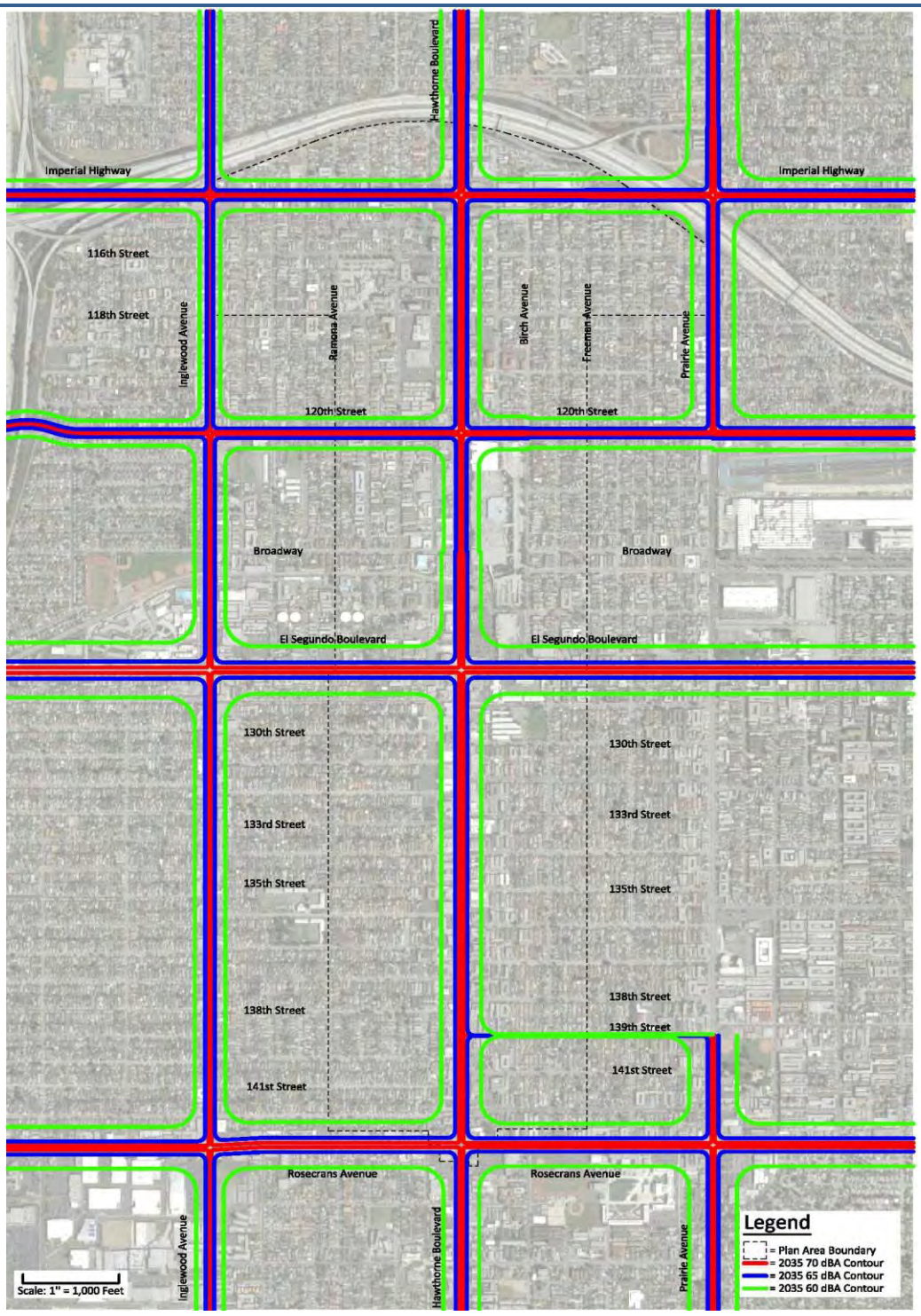
Roadway	Segment	Year 2020 ADT[1]	Year 2020 CNEL Contours (feet from Centerline)			2035 ADT[1]	Year 2035 CNEL Contours (feet from Centerline)		
			70 dBA	65 dBA	60 dBA		70 dBA	65 dBA	60 dBA
I-405 NB/SB On-Off Ramps	North of El Segundo	9,900	25	78	247	4,300	11	34	107
	South of El Segundo	15,800	39	125	395	19,200	48	152	480
Inglewood Avenue	North of Imperial Hwy	18,000	9	28	89	21,700	11	34	107
	Imperial Highway to 120th Street	18,200	9	28	90	21,700	11	34	107
	120th Street to El Segundo Boulevard	27,400	14	43	135	32,800	16	51	161
	El Segundo Boulevard to Rosecrans Avenue	27,000	13	42	133	32,300	16	50	159
	South of Rosecrans Avenue	23,900	12	37	118	29,000	14	45	143
Hawthorne Boulevard	North of Lennox Boulevard	31,700	16	49	156	38,500	18	60	190
	Lennox Boulevard to I-105 WB Off-Ramp	35,600	17	55	175	43,300	21	67	213
	I-105 WB Off-Ramp to Imperial Highway	32,600	16	51	161	39,500	20	61	195
	Imperial Highway to 120th Street	32,400	16	50	160	38,500	19	60	190
	120th Street to Broadway Avenue	33,100	16	51	163	36,900	18	57	182
	Broadway Avenue to El Segundo Boulevard	36,000	18	56	177	41,600	20	65	205
	El Segundo Boulevard to Rosecrans Avenue	35,900	18	56	177	42,000	20	65	207
	Rosecrans Avenue to Marine Avenue	31,500	15	49	155	37,800	19	59	186
	South of Marine Avenue	33,500	16	52	165	40,500	20	63	200
Prairie Avenue	North of I-105 EB Off-Ramp	30,200	15	47	208	36,600	18	57	253
	I-105 EB Off-Ramp to Imperial Hwy	32,200	16	50	222	38,900	19	61	269
	Imperial Highway to 120th Street	26,200	13	41	180	31,800	16	49	219
	South of 139th Street	30,400	15	47	210	35,900	18	56	248
I-105 WB Off-Ramp	East of Hawthorne Boulevard	9,400	23	74	235	11,400	28	90	285
Imperial Highway	West of Hawthorne Boulevard	27,600	14	43	134	33,700	17	52	166
	Hawthorne Boulevard to I-105 EB On-Ramp	29,500	15	46	145	35,700	18	56	176
	I-105 EB On-Ramp to Prairie Avenue	31,200	15	49	154	37,900	19	59	187
	East of Prairie Avenue	29,000	14	45	143	35,500	17	55	175
120th Street	West of Inglewood Avenue	17,700	12	36	115	21,300	14	44	139
	Inglewood Avenue to Hawthorne Boulevard	21,400	14	44	139	25,600	17	53	167
	Hawthorne Boulevard to Birch Avenue	23,200	15	48	151	28,000	18	58	182
	Birch Avenue to Prairie Avenue	20,900	14	43	136	25,000	16	51	163
	East of Prairie Avenue	23,600	15	49	153	28,600	19	59	186
El Segundo Boulevard	West of I-405 NB On-Off-Ramp	38,100	26	83	263	48,100	33	105	332
	I-405 NB On-Off-Ramp to Inglewood Avenue	36,400	25	79	251	43,700	30	95	302
	Inglewood Avenue to Hawthorne Boulevard	31,800	22	69	219	38,200	26	83	264
	Hawthorne Boulevard to Birch Avenue	31,700	22	69	219	37,800	26	82	261
	East of Birch Avenue	32,100	22	70	222	38,300	26	82	264
139th Street	East of Hawthorne Boulevard	1,600	1	3	10	1,900	1	4	12
Rosecrans Avenue	West of Inglewood Avenue	27,500	19	60	190	33,400	23	73	231
	Inglewood Avenue to Hawthorne Boulevard	3,000	21	65	207	36,300	25	79	251
	East of Hawthorne Boulevard	28,200	19	61	195	34,100	24	74	235

Source: Kunzman Associates, Inc. DHSP Noise Study Report August 2015



Source: Kunzman Associates, Inc. DHSP Noise Study Report December 2015

Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.4-7** **2020 Roadway Noise Contours**



Source: Kunzman Associates, Inc. DHSP Noise Study Report December 2015

Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.4-8** **2035 Roadway Noise Contours**

Table 3.4-9: Parking Lot Noise Sources

Source	Level (dBA)	
	50 Feet	100 Feet
Autos at 14 mph	50	44
Sweepers	72	66
Car Alarm Signal	69	63
Car Alarm Chirp	54	48
Car Horns	69	63
Door Slams	64	58
Talking	36	30
Radios	64	58
Tire Squeals	66	60

Source: Gordon Bricken & Associates, 1996 (as cited in Trancas Canyon Community Park EIR, 2007).
Estimates are based on actual noise measurements taken at various parking lots as measured by Kunzman Associates, inc.

Truck deliveries, loading dock activities and air conditioning noise are difficult to assess at this stage of the project. Loading dock noise includes the movement of the goods into the store and possibly forklift operations. Truck delivery noise is generated when a truck drives to or from the loading dock. Formerly, delivery truck drivers could also leave the truck idling during unloading operations. However, trucks are now prohibited from idling for more than five minutes per the South Coast Air Quality Management District regulations. The number of truck deliveries and the time of day that unloading would occur is not known. Nighttime operations can be particularly annoying and noise levels could be loud enough that cause disturbance to residents.

Mechanical equipment noise associated with the heating, ventilation, and air conditioning system (HVAC) is often present with several of the land use types being proposed as part of the project. HVAC equipment is sometimes located on the ground or on the roof of the buildings. The type, size and number of mechanical equipment are not known at this time. If the equipment is located on the roof, parapet walls are often used to control the noise from the equipment. Similarly, sound walls can be located around HVAC equipment that is located on the ground. Therefore, the activities associated with retail, office and business park establishments such as parking lot noise, air conditioning units, delivery trucks, loading and unloading are considered ***significant*** noise impacts.

Transformative Project

Impacts on the four Transformative Projects are the same as those found for the Specific Plan area. Long-term traffic noise impacts are considered potentially ***significant*** impacts.

Mitigation Measures 3.4-4

Prior to issuance of building permits for non-residential land uses located adjacent to residential land uses, City staff shall require the preparation of a detailed noise study that shall be prepared to ensure that these sources do not exceed noise level limits presented in the City's noise ordinance which are dependent on the type of land use. The assessment shall be prepared by a qualified acoustical engineer and shall document the noise generation characteristics of the proposed equipment and the projected noise levels at the nearest use. Compliance with these levels shall be demonstrated and any measures required to comply with the Noise Ordinance will be included in the project plans. The report shall be completed and approved by the City prior to issuance of building permits.

Level of Impact After Implementation of Mitigation Measure 3.4-4

The residual impact following implementation of the recommended Mitigation Measures for 3.4-4 would be ***less than significant***.

Impact 3.4-5 Short-Term Vibration

Specific Plan

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of future construction activities could respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. It is highly unlikely, however, that damage would occur. **Table 3.4-1** provides approximate vibration levels for specific construction activities. This data provides a reasonable estimate for a wide range of soil conditions.

Vibratory equipment including loaded trucks, large bulldozers and a hoe-ram would be utilized during demolition activities, which would include the tearing up of concrete and asphalt and the tearing down of existing structures. A vibratory roller, loaded trucks and possibly a jackhammer would be utilized to renovate and to build new structures. The vibratory roller would primarily be used during the laying of asphalt and a jackhammer may be utilized during utility relocation or installation. As shown in **Table 3.4-1**, a vibratory roller could produce up to a PPV of up to 0.21 inch per second at 25 feet. Use of vibratory equipment within 70 feet of a sensitive receptor could be perceptible but is expected to be short-term. Damage to buildings of normal construction is possible if vibratory equipment is utilized within 25 feet of a sensitive receptor.

Transformative Project

Impacts on the four Transformative Projects are the same as those found for the Plan area. Short-term vibration impacts are considered potentially ***significant***.

Mitigation Measures 3.4-5

In addition to adherence with allowed hours for construction, implementation of Mitigation Measures 3.4-5 will minimize potential short-term vibration impacts

- The use of vibratory equipment shall be avoided or minimized within 25 feet of existing vibration-sensitive land uses.
- If vibratory equipment must be used within 25 feet of an existing structure vibration, monitoring shall be conducted and work shall be halted and re-evaluated if vibratory levels approach 0.20 PPV, which is the standard established level to protect structures.

Level of Impact After Implementation of Mitigation Measure 3.4-5

The residual impact following implementation of the recommended Mitigation Measures for 3.4-5 would be ***less than significant***.

Impact 3.5-6 Long-Term Vibration

Specific Plan

Medium and heavy delivery trucks can be expected to visit sites within the Plan area on a regular basis. Heavy trucks would not be anticipated to exceed 0.10 in/sec peak particle velocity (ppv) at 10 feet (Caltrans 2002). Predicted operational-related vibration levels at the nearest off-site structures, which are located in excess of 25 feet from the traveled roadway segments, would not be anticipated to exceed even the most conservative threshold of 0.2 inch/second ppv. This is considered a ***less than significant*** impact.

Transformative Project

Impacts on the four Transformative Projects are the same as those found for the Plan area. Long-term vibration impact is considered ***less than significant***.

Mitigation Measures 3.4-6

No mitigation measures are required.

Level of Impact After Implementation of Mitigation Measure 3.4-6

No mitigation measures required and Impact 3.4-6 remains ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

3.5 Geology and Soils

This section of the EIR addresses potential geology and soils impacts associated with the implementation of the Specific Plan and development of the four Transformative Projects.

Environmental Setting

Geologic Setting

The City of Hawthorne is located in the Los Angeles Basin at the north end of the Peninsular Ranges geomorphic province. The Peninsular Ranges Province is one of the largest geologic units in western North America, extending 900 miles southeast from Southern California to the tip of Baja California. The dominant structural features of the province are northwest trending fault zones, folds, and mountain ridges, separated by sediment-floored valleys. Within the vicinity of the DHSP area, the dominant structural feature is the Newport-Inglewood Structural Zone, located to the immediate northeast of the City of Hawthorne. It consists of a broad range of discontinuous northwest-trending faults.

Topography

The U.S. Geological Survey (USGS) Inglewood Quadrangle map shows the DHSP area is relatively flat, with most of the area elevations ranging between 70 feet and 80 feet above sea level. The most distinctive point of elevation gain is a rise to 120 feet above sea level, located in the vicinity of Ramona Avenue and 131st Street, and a second smaller peak of 90 feet at Ramona Avenue and 135th Street. Overall the DHSP area slopes slightly downward from west to east.

Soils

The City of Hawthorne is underlain by four types of Quaternary geologic units. The majority of the Plan area lies atop older alluvium sediments. A band of older eolian deposits underlies the area east of Hawthorne Boulevard and south of Broadway. The soils in these areas consists of medium to very dense sand, silty sand, clayey sand, and silt, and deposits of hard clay. The area is partially overlain by stabilized older dune sand, composed of medium dense fine silty sand and silt, up to 15 feet thick. Within the City limits but outside the Plan area are two areas underlain with younger alluvium deposits atop the older alluvium deposits. A younger alluvial fan up to 45 feet thick, comprised of medium to dense sand, silty sand and silt, and stiff clay, lies within the area between Prairie Avenue and Van Ness Avenue, extending north from 132nd Street to the vicinity of the former Hollywood Park in the neighboring city of Inglewood. Southwest of this area is a region of younger alluvia valley deposits consisting of approximately 12 to 20 feet of soft to firm clay and clayey sand.[1]

[1] *California Department of Conservation, Seismic Hazard Zone Report 027, pg 7-8*

Groundwater

The California Geology Survey measures historical highest-known groundwater levels as part of the process of establishing Seismic Hazard Zone maps. Within the Plan area, the shallowest measurement of groundwater depth is approximately 40 to 50 feet.[2] Under static conditions, average groundwater depth to surface measurement throughout the City is slightly over 100 feet.[3]

Seismic Setting

Featuring over 300 faults capable of producing magnitude 6.0 tremors, Southern California has the highest level of earthquake risk in the country. Each year the region experiences approximately 10,000 earthquakes. Although most incidents are of lower magnitudes imperceptible to human populations, several hundred earthquakes register with magnitudes greater than 3.0, and 15-20 earthquakes of magnitudes greater than 4.0 occur annually in the region. FEMA estimates that half of the earthquake-related future financial losses in the nation are expected in Southern California, with Los Angeles County alone accounting for one-quarter of total seismic risk. Combined with population totals and density – over 21 million people reside within the Los Angeles and San Diego metropolitan areas – the seismicity of Southern California presents the greatest urban risk in the United States.[4]

Intensity and Magnitude

Intensity refers to the effect of an earthquake on the Earth's surface, as distinct from the moment magnitude (M_w) measurement of the energy released by an earthquake. The intensity scale currently used in the United States to evaluate the effects of an earthquake is the Modified Mercalli Intensity Scale (MMIS). This scale was developed in 1931 by seismologists Harry Wood and Frank Neumann and later revised by Charles Richter, and was a modification of volcanologist Giuseppe Mercalli's 1902 revision of the Rossi-Forel scale. The MMIS is composed of twelve increasing levels of intensity, designated by Roman numerals, that range from imperceptible shaking (I) to catastrophic destruction (XII). The MMIS is an arbitrary ranking based upon observable seismic effects upon populations and structures; source data is complied through Geological Survey questionnaires distributed in affected areas in the wake of an earthquake. Intensity is considered to be a more useful criterion for the general population than the measure of magnitude, as it indicates the local effects of an earthquake as experienced by affected areas at various distances from the epicentral area. As the effect of an earthquake can vary greatly by location, there may be many MMIS values measured for the same earthquake. These values can be visually displayed through a contoured map showing areas of equal intensity, known as an isoseismal map. The following **Table 3.5-1** gives a description of the 12 intensity levels of the MMIS:

[2] *Ibid, Plate 1.2*

[3] *City of Hawthorne 1989 Safety Element, pg 4*

[4] *2 USGS websites http://earthquake.usgs.gov/research/faults/*

Table 3.5-1: Monthly Modified Mercalli Intensity Scale

Intensity	Description
I	Not felt except by a very few under especially favorable conditions.
II	Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
III	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration similar to the passing of a truck. Duration estimated.
IV	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Felt by nearly everyone; many awakened. some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rail bent.
XI	Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.
XII	Damage total. Lines of sight and level are distorted. Objects thrown into the air.

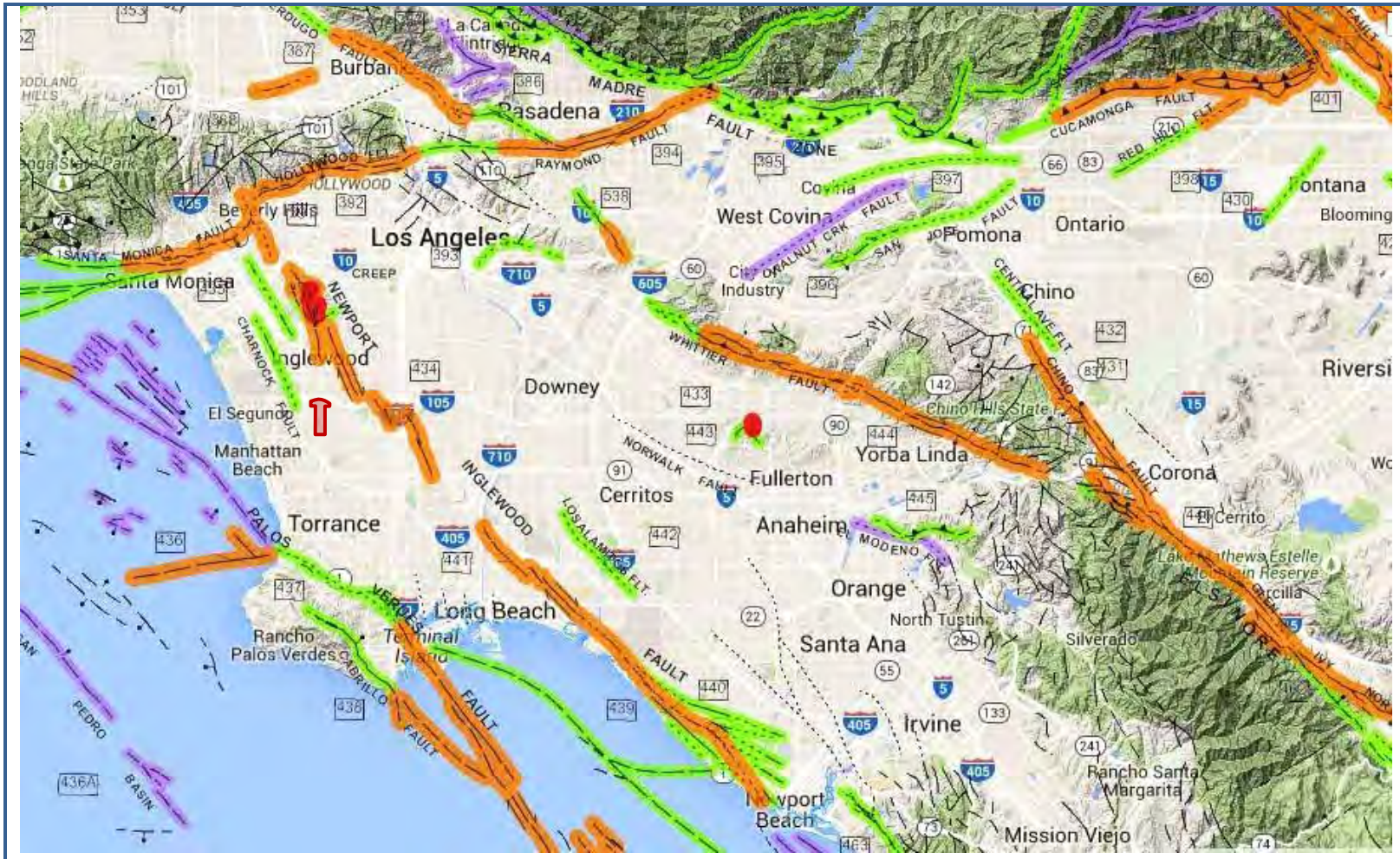
Source: The Severity of an Earthquake, U.S. Government Printing Office: 1989-288-913; from USGS website, http://pubs.usgs.gov/gip/earthq4/severitygip.html, accessed March 23, 2015

Faults

A fault is a fracture in the earth's crust forming a boundary between rock masses that have shifted; in which rocks on one side of the fault have been displaced with respect to rocks on the other side. The line formed by the intersection of a fault and the earth's surface is known as a fault trace; this term also refers to the representation of a fault as depicted on a map. Faults are categorized as by the California Department of Conservation as active, potentially active, or inactive. An active fault has demonstrated evidence of surface displacement at any point within the Holocene geological epoch (approximately the past 11,000 years). Potentially active faults show evidence of surface displacement during Quaternary time (within the last 1.6 million years). For most purposes, faults which lack evidence of surface displacement within the last 1.6 million years are considered inactive.

While there are no Alquist-Priolo Earthquake Fault Zones located within the City -- delineated active fault zones by the State Geologist -- there are several local and regional fault zones in its vicinity. The Charnock Fault is located within one-mile of the northwestern boundaries of the Plan area. The fault is not considered active, as there is no evidence of surface folding or ruptures during the Quaternary time period. The closest active fault to the Plan area is the Newport-Inglewood fault which is located approximately 1.5 miles to the northeast. **Figure 3.5-1** maps the location of the key faults in the region and **Figure 3.5-2** shows the location of the Newport-Inglewood Alquist-Priolo Earthquake Fault Zone in the vicinity of the Plan area. A short description of these faults is presented below.

- **San Andreas Fault.** Located approximately 50 miles north of the City. The San Andreas Fault Zone is approximately 750 miles long extending from the Gulf of California north to Cape Mendocino, California. This fault system is noted for infrequent, large earthquakes. The probable magnitudes range from 6.8 to 8.0.
- **San Jacinto Fault.** This segment of the larger San Andreas Fault Zone is located in western San Bernardino County and is approximately 60 miles northeast of Hawthorne. The most recent surface rupture along this fault zone occurred in 1968. It is believed that this fault is capable of generating a magnitude 6.5 to 7.5 earthquake.
- **Newport-Inglewood Fault.** This complex zone of northwest-trending faults extends from the Cheviot Hills in the western portion of the Los Angeles County south to the City of Laguna Beach in Orange County. This fault was responsible for the 1933 Long Beach earthquake that resulted in extensive damage and fatalities. It is located within one mile of Hawthorne's northeast boundaries. The California Department of Conservation, Division of Mines and Geology designates the Newport-Inglewood fault as active, with a maximum credible magnitude of 7.0.
- **Palos Verdes Fault.** Located approximately five miles southwest of Hawthorne along the northern front of the Palos Verdes Hills. It extends from the Santa Monica Bay to offshore southern Orange County. The fault is considered capable of generating a maximum credible earthquake of magnitude 6.6.



Source: California Department of Conservation

DHSP Area

Displacement last 200 yrs

Displacement last 11,700 yrs.

Displacement last 700,000 yrs

Displacement last 1.6 million yrs.

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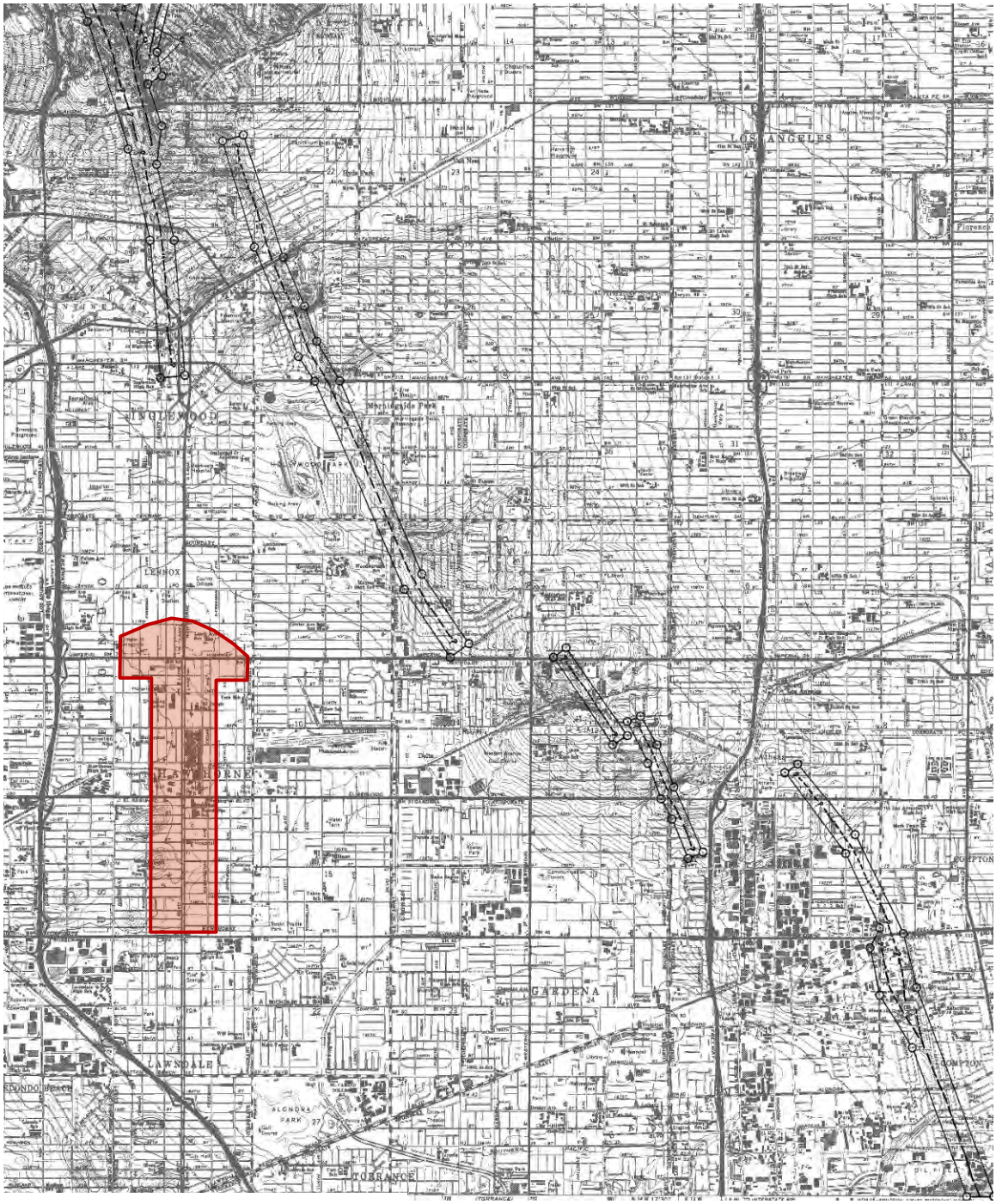
Figure 3.5-1
Regional Faults



Source: California Department of Conservation

Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.5-2** **Alquist-Priolo Earthquake Fault Zone**

- **Santa Monica Fault.** The Santa Monica Fault is an east-west fault that extends approximately 15 miles along the southern foothills of the Santa Monica Mountains. It is approximately ten miles north of Hawthorne. This fault has the capability of generating an earthquake in the magnitude range of 6.0 to 7.0.
- **Whittier-Elsinore Fault.** This fault zone extends from the southern portion of the San Gabriel Valley in Los Angeles County south to Lake Elsinore in Riverside County, a total of more than 120 miles. The nearest segment of the Whittier-Elsinore Fault is located within approximately 20 miles northeast of the City. The epicenter of the 1987 Whittier Narrows earthquake (magnitude 5.9) was located near the northern portion of the Whittier-Elsinore fault zone. This fault zone has an expected maximum credible magnitude of 7.5.

Earthquakes

The most significant seismic event in Southern California in recent decades was the 1994 Northridge Earthquake. The earthquake caused over $40 billion total in direct damages and economic impacts, making it the second costliest natural disaster in the United States. This was the first earthquake to strike directly under an urban area of the United States since the aforementioned 1933 Long Beach quake. The epicenter of the 6.7 M_w quake was approximately located 25 miles north from the DHSP area. Notably, the Northridge Earthquake occurred on a previously-undiscovered blind thrust fault; this type of fault is characteristically difficult to discover and map due to a lack of surface evidence of displacement.

Geologic Hazards

Surface Rupturing

Surface rupture is a break in the ground's surface and associated deformation resulting from the movement of a fault. Rupture occurs suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking. As a result, surface rupture represents a direct potential hazard to structures built on an active fault zone.

Expansive Soils

Clay components of soil contract in size when dried, and expand when wetted. Expansive soils experience a significant change in volume during this "shrink-swell" cycle, thereby exerting stress on building foundations, paved roads, and other structures placed atop these soils. Soils prone to expansion are typically comprised of more fine-grained clay particles, whereas soils containing less clay and more granular particles (silty sand, sand, and gravel) have a lower expansion potential. Locations of expansive soils are site-specific, and adverse potentials can generally be mitigated through standard engineering and construction practices.

Soil Erosion

Soil erosion is an on-going process that transports, erodes, and displaces soil particles through a transport mechanism such as flowing water, wind, or gravity, or through human activity. Most natural erosion occurs at relatively slow rates; however, the rate of erosion is increased in localities with steeply-sloped ground surfaces or where land surfaces are cleared of vegetation and/or left in a disturbed condition. Human activity can accelerate the natural erosion process, particularly during the preparation and excavation phases of site development, in which land surface is disturbed and cleared of vegetative cover. Development that disturbs soils in arid regions can also increase the potential effects of wind erosion. In general, site development typically results in a reduction of overall permeable surface area. These examples of human activity can lead to increased water runoff rates and concentrated flows that have greater potential to erode exposed soils. The resulting consequences of excessive erosion can range from easily-mitigated issues that require additional maintenance to resolve to instances of severe damage which can eventually undermine the development area and adjacent structures or topography.

Land Subsidence

A variety of human activities, including agricultural, mining, and municipal practices, can contribute to the loss or degradation of supporting materials within a geologic formation, resulting in the gradual settling or sinking of the ground surface. Subsidence is often the byproduct of groundwater over-extraction, exceeding the rate of aquifer replenishment; these negative impacts can be avoided through good management of local water supplies and the use of artificial recharge. Subsidence can also be caused by oil, natural gas, or mineral extraction. Instances of subsidence could result in the sinking of land surfaces, thereby increasing the potential for flooding, and potential damage to overlying structures and roads and to buried pipelines and sewer systems.

Liquefaction

Liquefaction is defined as the transformation of granular material from a solid state into a liquefied state as a consequence of increased pore-water pressure. Liquefaction occurs when susceptible soils lose strength and fail during strong ground shaking, temporarily transforming the soils into a fluid mass.[5] Susceptible soils are typically water-saturated, loosely compacted, and lacking cohesion, whereas soils resistant to liquefaction are dry, cohesive, and of medium to high density. Grain-size of sedimentary material is also a factor, as gravel or silty soils are more resistant than sand. Late Quaternary alluvial and fluvial sedimentary deposits are among the types of geologic units that are generally susceptible to liquefaction, as are areas of artificial fill. Very shallow ground water (where depth to ground water is 40 feet or less) increases soil-susceptibility to liquefaction hazards. Liquefaction-induced ground failure is a major potential hazard within seismically-active southern California. Both the 1971 San Fernando and 1994 Northridge earthquakes saw significant damage to roads, bridges, utility pipelines, buildings, and other structures as a result of ground displacement caused by liquefaction.[6]

[5] *SHMA Factsheet*

[6] *Inglewood Quad 027 report, pg 4-9*

Regulatory Framework

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards such as liquefaction, ground shaking, or landslides.

The law requires the State Geologist to delineate regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new construction and renovation. Local agencies must regulate most development projects within the zones, and local regulations may be more restrictive than the minimum standards required by state law. In general, a project requires a geologic investigation to ensure that any new construction of structures meant for human occupation are situated at least 50 feet from an active fault. Buildings built prior to 1972 may still be located atop active faults unless undergoing a major renovation of more than 50 percent alterations, in which case the project is treated as a new construction and a geologic investigation is necessary.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (SHMA) directs the California Department of Conservation to designate seismic hazard zones through the California Geological Survey (CGS)[7]. The SHMA includes seismic hazards not addressed by the Alquist-Priolo Act, such as liquefaction and seismically induced landslides. The purpose of the SHMA is to reduce the threat to public health and safety, and to minimize the loss of life and property, by identifying and mitigating seismic hazards. Cities, counties, and state agencies are directed to use the seismic hazard zone maps in their land-use planning and permitting processes. The agencies must withhold development permits for sites within a delineated zone until the geologic and soil conditions of the project are investigated and appropriate mitigation measures, if any, are incorporated into the development plans. Evaluation and mitigation of seismic hazards are to be conducted under guidelines outlined in the CGS's "Guidelines for Evaluating and Mitigating Seismic Hazards in California".[8]

As illustrated in **Figure 3.5-3** (Inglewood Quadrangle), the DHSP area is not located in a CGS Seismic Hazards Zone. There are no potential landslide or liquefaction areas in the vicinity of the DHSP area.

California Building Code

Title 24, Part 2 of the California Code of Regulations is the California Building Code (CBC). Updated every three years, the current 2013 CBC took effect January 1, 2014. The CBC incorporates the

[7] *Formerly the Division of Mines and Geology*

[8] *Special Publication 117, adopted in 1997. Accessed at http://gmw.consrv.ca.gov/shmp/webdocs/sp117.pdf*

current Uniform Building Code, the model building code widely adopted across the United States, with additional amendments specifically designed to earthquake conditions within the State of California. The CBC enacts minimum state-wide standards for building design and construction. Local jurisdictions can adopt the CBC in whole or in part, and local codes are permitted to be more restrictive than Title 24 regulations.

Local Regulations

Hawthorne General Plan Safety Element

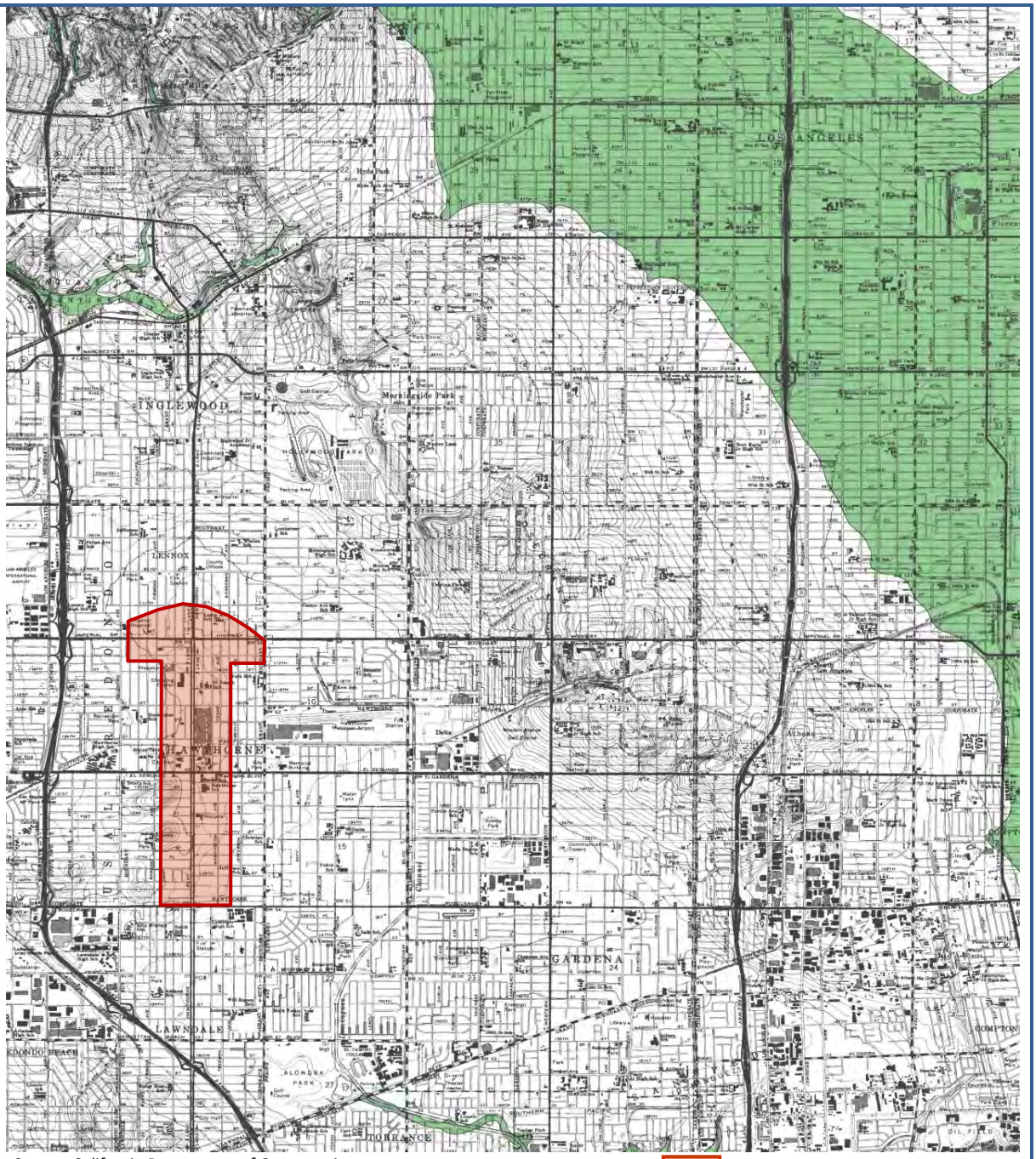
The Safety Element of the City of Hawthorne's General Plan establishes goals and policies intended to reduce the risk of exposure to adverse effects of natural and man-made issues. The following goal and policies are designed to provide the community with an acceptable level of safety and protection from seismic hazards:

Goal 1.0: Minimize the hazards to public health, safety, and welfare and prevent loss of life, bodily injury, and property damage resulting from natural and man-made occurrences.

> **Policy 1.1:** Continue to cooperate with and support in every way possible the Federal, State, and County Agencies responsible for the enforcement of Federal, State, and local health, Safety, and environmental laws.
>
> **Policy 1.2:** New development shall not subject other property to unreasonable hazards or risk of natural disaster.
>
> **Policy 1.4:** The City shall maintain and update as needed a comprehensive emergency plan consisting of measures to be taken during and after an earthquake, flood, toxic/hazardous spill, or other disaster.
>
> **Policy 1.9**: The City shall provide for the implementation of Chapter 250, Statutes of 1986; SB547 (Alquist); Government Code Section 8875 et seq. to identify and provide for rehabilitation of existing buildings which pose a hazard due to inadequate seismic design.

City of Hawthorne Municipal Code

The Hawthorne Municipal Code, Title 15 (Buildings and Construction), Chapter 15.04 (Building Code) adopts the 2013 CBC.



Source: California Department of Conservation

Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.5-3 Seismic Hazards Zone**

Standard of Significance

The following standards of significance are based upon Appendix G of the CEQA Guidelines. Implementation of the proposed DHSP would result in significant geology and soil impacts if any of the following conditions would occur:

1. Exposes people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
    a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.
    b. Strong seismic ground shaking.
    c. Seismic-related ground failure, including liquefaction.
    d. Landslides.
2. Results in substantial soil erosion or the loss of topsoil.
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.

Impacts and Mitigation Measures

This section analyzes potential program and project-specific impacts associated with geology and soils and identifies mitigation measures if impacts are found to be significant.

Impact 3.5-1 Seismic Activity

Specific Plan

The proximity of an earthquake fault is a primary consideration when evaluating the impact of seismic activity, such as surface rupture, ground shaking and liquefaction on an area. Other factors, including depth of focus, epicenter location and magnitude, contribute to the intensity of ground shaking produced by a seismic event. For instance, an earthquake on the Newport-Inglewood Fault, which is identified in **Figure 3.5-2 (**Alquist-Priolo Earthquake Fault Zone map) and is located approximately 1.5 miles from the DHSP area, will produce greater ground shaking and damage than a much larger earthquake located some distance away. This is further magnified as alluvial soils that underlie the Plan area, which have a tendency to amplify ground motion from earthquakes because

they are not as dense or consolidated as solid bedrock.

Implementation of the DHSP and development of the Transformative Projects, may encourage greater intensities of development on underutilized land within the Plan area. Increased development levels could mean a potential net increase of 655 dwelling units, and a net increase of 822,700 square feet of additional non-residential uses in the Transformative Project sites by 2020, and a net decrease of 317 dwelling units and a net increase of approximately 2.17 million square feet of non-residential development for the total Plan area by 2035. For the Plan area, this translates into an increase in workers and visitors to the area. In the event of a major earthquake, future development could expose people and structures to safety risk associated with ground shaking.

The occurrence of a major earthquake in the southern California region could result in loss of life, injury and property damage. Ground shaking would be responsible for the majority of the damage within the City of Hawthorne. However, existing City policies identified in the General Plan and Municipal Code development and design standards would mitigate potential adverse impacts resulting from seismic hazards. These hazards are no greater than those present in other areas of the southern California region. In addition, the absence of earthquake faults in the Plan area may result in lesser seismic hazard than other areas. Furthermore, as illustrated in **Figure 3.5-3** (Seismic Hazards Zone), the Plan area is not located within an area of potential liquefaction or landsides.

Redevelopment and adaptive reuse of existing structures could lead to the removal of structures which do not meet current seismic code standards or to the structures being rehabilitated and thereby improving the structure integrity of the building. Furthermore, new construction would be subject to existing City policies and standards that address seismic hazards as well as being subject to the requirement of the City's building codes. Therefore, geologic and soils impacts resulting from the implementation of the DHSP is considered ***less than significant***.

Transformative Projects

Impacts on the four Transformative Projects are the same as those found for the Specific Plan area. Geologic and soils impacts are considered ***less than significant***.

Mitigation Measures 3.5-1

To ensure the less than significant impacts from seismic hazards, the following extra measures are recommended:

- Prior to the submission of any building permit application, the applicant of a major development shall provide for the City's review and consent, a comprehensive geotechnical investigation that explores and evaluates soil, groundwater, geological and seismic conditions; provides soil engineering criteria, and, documents the potential for seismically induced ground shaking on the building site. Such investigations shall be conducted by a licensed civil engineer specializing in the practice of soil mechanics, and by a certified engineering geologist. Construction shall be in compliance with the findings and recommendations of the required investigations.

- Prior to the submission of any building permit application in portions of the Plan area that lie near suspected faults identified in future studies, the applicant shall provide geotechnical evaluations acceptable to the City to establish the presence and location of the suspected faults, and to establish whether or not they are potentially active.
- If an active fault is identified within the Plan area, no new structure intended for human occupancy or use shall be placed directly on or within 50 feet of any active or potentially active fault.
- All construction of new buildings or rehabilitation of existing buildings shall be in accordance with all applicable local, state, and federal regulations, including the California Building Code and the latest adopted edition of the Uniform Building Code.

Level of Impact After Implementation of Mitigation Measure 3.5-1

The residual impact following implementation of the recommended Mitigation Measures 3.5-1 would remain **less than significant**.

Impact 3.5-2 Soil Erosion

Specific Plan

The proposed DHSP would have a significant impact if new development construction activities implemented by the DHSP, such as site clearance and grading, would have the potential to cause substantial erosion and topsoil loss. Soil erosion is an on-going process that transports, erodes, and displaces soil particles through a transport mechanism such as flowing water, wind, or gravity, or through human activity. Most natural erosion occurs at relatively slow rates; however, the rate of erosion is increased in localities with steeply-sloped ground surfaces or where land surfaces are cleared of vegetation and/or left in a disturbed condition. Human activity can accelerate the natural erosion process, particularly during the preparation and excavation phases of site development, in which land surface is disturbed and cleared of vegetative cover. Development that disturbs soils in arid regions can also increase the potential effects of wind erosion. In general, site development typically results in a reduction of overall permeable surface area. These examples of human activity can lead to increased water runoff rates and concentrated flows that have greater potential to erode exposed soils. The resulting consequences of excessive erosion can range from easily-mitigated issues that require additional maintenance to resolve, such as increased siltation within storm drains, to instances of severe damage which can eventually undermine the development area and adjacent structures or topography.

Topsoil refers to the uppermost soil layer, usually 6 to 8 inches in depth, containing the highest concentration of organic matter and microorganisms. A major effect of topsoil erosion in increased sedimentation in downstream “receiving” bodies of waters via storm drainage or construction site discharge.

As discussed in this section, the DHSP area is relatively flat and does not contain any slopes over 15 percent, and the majority of soil surfaces within the area are covered by structures, roads, or parking lots, or have been landscaped if not built over; the erosion potential in the DHSP area is consequently very limited. Nevertheless, erosion control methods are necessary to avoid potential soil erosion or downstream sedimentation during earth-disturbing phases of project development. The Hawthorne Municipal Code, Title 8 (Health and Safety), Chapter 8.50 (Stormwater and Urban Runoff Pollution Control) establishes Best Management Practices (BMPs) for construction projects. BMPs must be utilized to the maximum extent practicable to minimize project site runoff of sediment, construction materials and waste, trash, and pollutants into the municipal stormwater sewer system. Section 8.50.150 lists applicable BMP including wind erosion, tracking, and structural controls such as silt fences, sediment barriers, plastic sheeting, and storm drain inlet protectors. BMPs are required to be applied throughout the total duration of the construction project, from the initial stages of demolition, land clearing, or inception of construction activities, and remain in effect until the receipt of a certificate of occupancy.

The topography and built-out development of the DHSP area limit the potential for soil erosion and topsoil loss. In addition, the City has adopted BMPs to limit construction-related runoff into stormwater system. Therefore, these impacts are considered ***less than significant***.

Transformative Projects

Impacts on the four Transformative Projects are the same as those found for the Specific Plan area. Geologic and soils impacts are considered ***less than significant***.

Mitigation Measure 3.5-2

No mitigation measures are required.

Level of Impact After Implementation of Mitigation Measure 3.5-2

No mitigation measures required and Impact 3.5-2 remains ***less than significant***.

Impact 3.5-3 Expansive Soil

Specific Plan

The proposed DHSP could have a significant impact if new development projects implemented by the DHSP would locate new structures on expansive soils. Clay components of soil contract in size when dried, and expand when wetted. Expansive soils experience a significant change in volume during this “shrink-swell” cycle, thereby exerting stress on building foundations, paved roads, and other structures placed atop these soils. Soils prone to expansion are typically comprised of more fine-grained clay particles, whereas soils containing less clay and more granular particles (silty sand, sand, and gravel) have a lower expansion potential. Locations of expansive soils are site-specific, and adverse potentials can generally be mitigated through standard engineering and construction practices.

The Hawthorne Municipal Code addresses site-specific soil investigations under Chapter 16.36 (Preliminary Soil Report) of Title 16 (Subdivisions). Preliminary soil reports, prepared by a registered civil engineer, are required as part of the initial process of filing for a new subdivision, unless waived by the city engineer due to adequate existing knowledge of soil conditions on site. If the preliminary analysis finds the presence of critically expansive soils or other soil issues which, if not corrected, would lead to structural defects, a soil investigation containing recommended corrective actions for each proposed structure to be constructed on the expansive soil is required. Subsequently, these corrective actions must be incorporated into the construction of each new structure prior to the issuance of any building permit within the new subdivision.

Compliance with applicable building code requirements and City regulations, and implementation of recommended corrective actions, would ensure that potential impacts relating to expansive soils would not exceed an acceptable level of risk. Therefore the potential for impact is considered ***less than significant***.

Transformative Projects

Impacts on the four Transformative Projects are the same as those found for the Specific Plan area. Geologic and soils impacts are considered ***less than significant***.

Mitigation Measure 3.5-3

No mitigation measures are required.

Level of Impact After Implementation of Project Mitigation 3.5-3

No mitigation measures required and Impact 3.5-3 remains ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

3.6 Hazards and Hazardous Materials

This section of the EIR analyzes the potential hazards associated with the implementation of the DHSP. These include the potential impacts on public health and safety impacts of its residents and the adverse affects on the environment. Safety hazards related to seismic and hydrology issues are discussed in *Section 3.5 Geology and 3.7 Hydrology*.

Environmental Setting

Current land uses in the DHSP area are primarily residential and commercial retail and services. Approximately one-half of the existing land uses are single and multi-family residential uses. Industrial land uses, which typically have the greatest potential of using, storing and transporting hazardous materials, only accounts for less than one percent of the total uses in the DHSP. There are however, numerous auto service establishments, such as the existing gas stations and auto dealerships. For example, the St. Joseph's Plaza Transformative Project (T4) site is currently used as a gas station and the South Bay Ford (T3) Transformative Project site is primarily used as an auto dealership that also includes auto services.

Hazardous Materials

As defined in Sections 25501 of the California Health and Safety Code, a hazardous material is any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or environment.

Hazardous wastes are distinguished as possessing one or more of the following characteristics: ignitability, corrosivity, reactivity, or toxicity.[1]

Ignitability – wastes can create fires under certain conditions, can undergo spontaneous combustion, or have a flash point less than 60°C (140°F). Examples include gasoline, natural gas, used solvents, and waste oil.

Corrosivity – wastes are strong acids or bases, or can produce strong acidic (pH ≤ 2.0) or alkaline (pH ≥ 12.5) solutions. Liquid wastes can also be characterized as corrosive if it is able to corrode metal containers such as storage tanks and barrels. Examples include sodium hydroxide (lye) and sulfuric acid (battery acid).

[1] *CCR Title 22, Division 4.5, Chapter 11 (Identification and Listing of Hazardous Waste), Article 3. Wastes can also be defined as hazardous wastes if included on the following RCRA hazardous wastes list: F-list (non-specific source wastes), K-list (source-specific wastes), P-list and U-list (discarded commercial chemical products).*

Reactivity – wastes are unstable under normal conditions, which may cause explosions or generate toxic gases. Examples include unused explosives and lithium-sulfur batteries.

Toxicity – wastes are harmful when ingested or absorbed, potentially resulting in temporary or long-lasting health effects or death. Examples include benzene and methylene chloride. Carcinogens (cancer-causing substances) are a special class of toxic substances.

To determine where hazardous material sites are located within and in the vicinity of the Specific Plan area, this EIR used the EnviroStor database from the California Department of Toxic Substance Control (DTSC) and the GeoTracker database from the State Water Resources Control Board (SWRCB). These databases identified the sites and actions being conducted to remediate the problem.

GeoTracker is a database and geographic information system (GIS) that provides online access to environmental data. It tracks regulatory data about Leaking Underground Storage Tank (LUST) cleanup sites, Cleanup Program Sites (CPS), also known as Site Cleanup (SC), Military sites (includes Military, Military UST, and Military Privatized), Land Disposal sites (Landfills), Waste Discharge Requirement permits (WDR), Agland (AGL) sites participating in the Irrigated Agricultural Land. The database also contains public drinking water well information furnished by the California Department of Public Health, although currently that information is only available to regulators (due to the security reasons, locations of the public wells are hidden from unauthorized users).

The Department of Toxic Substances Control provides detailed information on inspections and enforcement actions of permitted hazardous waste facilities through its EnviroStor Data Management System public web site. This site provides all existing information on permits and corrective action at hazardous waste facilities, as well as site cleanup projects. EnviroStor database provides information on completed facility inspection and enforcement actions, in addition to site investigation, site cleanup, permitting, and planned, current or completed corrective actions under DTSC's oversight. The EnviroStor database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.

As shown in **Table 3.6-1 and Figure 3.6-1**, there are two LUST Cleanup sites within the DHSP area that are listed in the Geotracker database. Both are gas stations, with gasoline as the primary contaminant of concern. In addition, the Geotracker and Envirostar record search found seven sites outside of the DHSP area, but within a quarter mile of its boundaries. Six of these sites are LUST Cleanup sites and one Corrective Action site. The Los Angeles County Sherriff station site is identified as both LUST Cleanup and Waste Discharge Requirement.

Table 3.6-1: DHSP Hazardous Materials Sites

Site Name	Site Address	SiteType	Status	Data Source
Within DHSP				
1. Rapid Gas Station #35	4558 Imperial Hwy., Hawthorne	LUST Cleanup	Open-Remediation	Geotracker
2. Shell Service Station	11741 Hawthorne Blvd., Hawthorne	LUST Cleanup	Open-Remediation	Geotracker
One Quarter Mile of DHSP				
3. Northrop Grumman Corp.	3901 W. Broadway, Hawthorne	Corrective Action	Active	Envirostar
4. Tosco-76 Station #4046	12806 S. Prairie Ave., Hawthorne	LUST Cleanup	Open-Remediation	Geotracker
5. Arco #0081	4015 W. El Segundo Blvd., Hawthorne	LUST Cleanup	Open-Remediation	Geotracker
6. Mobile Station (Former)	12815 S. Prairie Ave., Hawthorne	LUST Cleanup	Open-Remediation	Geotracker
7. The Leung Trust	12845 S. Prairie Ave., Hawthorne	LUST Cleanup	Open-Remediation	Geotracker
8. Arco #1260	4009 Rosecrans Ave., Hawthorne	LUST Cleanup	Open-Eligible for Closure	Geotracker
9. Los Angeles County Sheriff	4331 W. Lennox Blvd., Lennox	LUST Cleanup and WDR	Open-Remediation	Geotracker

Source: State Water Resources Control Board (Geotracker) and Department of Toxic Substance Control (Envirostor)

These sites have been identified as active, open for remediation or eligible for closure:

Active. Identifies that an investigation and/or remediation is currently in progress and that DTSC is actively involved, either in a lead or support capacity.

Open–Remediation. An approved remedy or remedies has/have been selected for the impacted media at the site and the responsible party is implementing one or more remedy under an approved cleanup plan for the site. This includes any ongoing remedy that is either passive or active, or uses a combination of technologies.

Open–Eligible for Closure. Corrective action at the Site has been determined to be completed and any remaining petroleum constituents from the release are considered to be low threat to Human Health, Safety, and the Environment.

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Figure 3.6-1
Hazardous Materials Sites

Railroad Safety

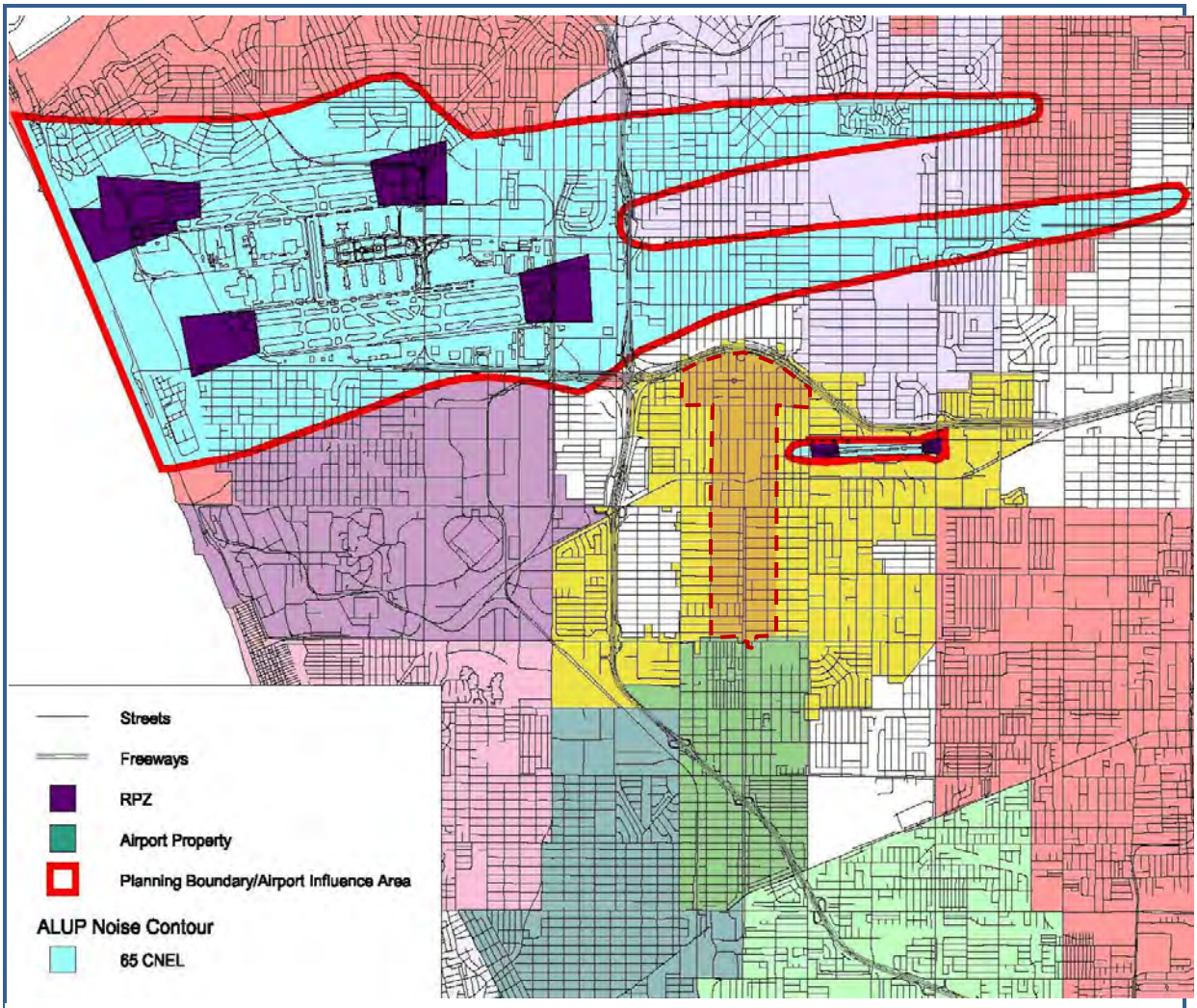
Rail Crossing at Hawthorne Boulevard

As previously discussed in section 3.2 (Transportation and Circulation), the Union Pacific Railroad (UP) line traverses the DHSP area between Broadway Avenue and 126th Street and is perpendicular to Hawthorne Boulevard. The line also bisects the Hawthorne Mall Transformative Project (T1) and is the northern boundaries of the Civic Center Transformative Project (T2). On average, one freight train travels west-bound on the rail line per day between the hours of 10:00 AM and 11:00 AM, and returns east-bound between the hours of 1:00 PM and 2:00 PM. As shown in the photo, an at-grade highway-rail crossing is located on Hawthorne Boulevard. Other at-grade rail crossings within the DHSP are located on Freeman Avenue, Cedar Avenue, Birch Avenue, Grevillea Avenue and Ramona Avenue.

Airport Safety

The nearest public or private airports to the DHSP area are the City of Hawthorne Municipal Airport located approximately one-quarter mile to the east and the Los Angeles International Airport (LAX) located approximately one mile to the northwest. The applicable land use plan for both airports is the Los Angeles County Airport Land Use Plan (ALUP), which includes maps that delineate safety zones and noise impact areas. **Figure 3.6-2** illustrates the location of the two airports in relation to the Plan area.

Airport safety is regulated by the Federal Aviation Administration (FAA), Los Angeles County Airport Land Use Commission and the affected local jurisdiction. The safety zones established in the ALUP are patterned after the Approach Surface and Runway Protection Zones (RPZ) instituted by the FAA. The RPZ is an area at ground level that provides for the unobstructed passage of landing aircraft. This zone is the most critical safety area under the approach path and should be kept free of all obstructions. No structures are permitted nor are the congregation of people allowed within this zone.



Source: Los Angeles County Airport Land Use Plan

North

Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.6-2 Los Angeles County Airport Land Use Plan -- Safety Zones**

Regulatory Framework

This section summarizes key federal, State, and local regulations and policies pertaining to hazards and hazardous materials that are applicable to the proposed DHSP.

Federal

Environmental Protection Agency (US EPA). Established in 1970, the United States Environmental Protection Agency (US EPA) protects human health and the environment by constructing, implementing, and enforcing national standards and regulations based upon environmental laws passed by Congress. Major legislation that fall under US EPA administration include the Occupational Safety and Health Act (1970), Clean Air Act (1970), Clean Water Act (1972), Safe Drinking Water Act (1974), Resource Conservation and Recovery Act (1976), Toxic Substances Control Act (1976), Comprehensive Environmental Response, Compensation, and Liability Act (1980), Nuclear Waste Policy Act (1982), Pollution Prevention Act (1990), Oil Pollution Act (1990), and the Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (1999).

Occupational Safety and Health Administration (OSHA). The Occupational Health and Safety Act of 1970 created the Federal Occupational Safety and Health Administration (OSHA) within the United States Department of Labor. OSHA administers the Act of 1970, which requires specific training for hazardous material handlers, provision of information to employees who may be exposed to hazardous materials and acquisition of material safety data sheets for materials manufacturers.

United States Department of Transportation (US DOT). The United States Department of Transportation (US DOT) is the primary regulatory authority for the transport of hazardous materials along interstate routes. The DOT Office of Hazardous Materials Safety establishes strict guidelines for the safe transportation of hazardous materials as proscribed by Title 49 of the Code of Federal Regulations (CFR), and codified statewide by the California Code of Regulations (CCR), under various sections including Titles 13, 22, and 26. These guidelines establish safe handling procedures relating to packaging, labeling, and routing of hazardous materials.

Resource Conservation and Recovery Act (RCRA). Passed in 1976, the Resource Conservation and Recovery Act (RCRA) is the major federal legislative framework for hazardous waste management; as of August 1992 the US EPA has delegated RCRA implementation in California to the Department of Toxic Substances Control (DTSC). Under RCRA regulations, hazardous wastes must be tracked from generation to the point of disposal, reuse, or recycling – known as “cradle to grave” management. Specifically, the RCRA regulates the activities of “large-quantity generators” (1,000 kilograms per month or greater) of hazardous waste, including generation, treatment, storage, transportation, and disposal phases. All businesses, institutions, or other entities that generate hazardous waste must be registered with a hazardous waste activity identification number. Additionally, the RCRA establishes the Solid Wastes Program, which prohibits the open dumping of solid waste and facilitates the development of state-level comprehensive plans to manage nonhazardous industrial municipal solid waste.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Enacted in 1980 and generally referred to as Superfund, CERCLA provides broad federal authority to respond

directly to releases or threatened releases of hazardous substances that may result in public or environmental endangerment. CERCLA contains regulations concerning inoperative or abandoned hazardous materials sites, establishes liability rules regarding hazardous waste releases, and endows a trust fund for cleanup activities for cases in which no responsible party can be identified. CERCLA also revised the National Contingency Plan (NCP), which was first enacted in 1968. The NCP established the National Priorities List (NPL) of hazardous waste sites eligible for long-term remedial action financed through the federal Superfund program. CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA).

State

California Environmental Protection Agency (Cal EPA). Divisions of Cal EPA include the following boards and departments: Air Resources Board (CARB), Department of Toxic Substances Control (DTSC), Department of Pesticide Regulation, Department of Resources Recycling and Recovery (CalRecycle), Integrated Waste Management Board (CIWMB), Office of Environmental Health Hazard Assessment (OEHHA), and the State Water Resources Control Board (SWRCB).

California Division of Occupational Safety and Health (Cal/OSHA). Cal/OSHA regulates hazardous materials in workplace environments pursuant to federal OSHA standards. Cal/OSHA protects workers from health and safety hazards on the job in almost every workplace in California through its research and standards, enforcement, and consultation program.

Department of Toxic Substances Control (DTSC). A department of Cal EPA, the Department of Toxic Substances Control (DTSC) has been delegated to implement the RCRA and is the primary responsible agency regulating the use, storage, transport, and disposal of hazardous materials and wastes.

State Water Resource Control Board (SWRCB). Created in 1967, the State Water Resource Control Board (SWRCB) is responsible for developing statewide water quality policy delegated to the State by the federal government under the Clean Water Act. The SWCRB was reorganized by the Porter-Cologne Water Quality Control Act of 1969 into nine regional water quality control boards that exercise rulemaking and regulatory activities by basins. Hawthorne is under the jurisdiction of RWQCB's Region 4 (Los Angeles Regional Water Quality Control Board).

Office of Emergency Services (OES). The Governor's Office of Emergency Services (OES) is the primary state-level emergency responder to hazardous material accidents, working in cooperation with local emergency response providers. The OES also implements hazardous materials notification programs.

California Department of Transportation (Caltrans). The California Department of Transportation (Caltrans) and the California Highway Patrol (CHP) are the main state level agencies enforcing US DOT laws and regulations regarding transportation of hazardous materials and waste. Caltrans manages over 50,000 miles of highways and freeways within the State, and directs inter-city rail services, issues permits for public-use airports and special-use hospital heliports, and coordinates with local agencies on transportation matters. Caltrans is the first responder for hazardous materials releases and spills occurring within their jurisdiction of highway and inter-city rail systems.

California Highway Patrol (CHP). The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) are the main state level agencies enforcing US DOT laws and regulations regarding transportation of hazardous materials and waste. Pursuant to the California Vehicle Code (CCR Title 13), the CHP regulates and issues Hazardous Materials Transportation Licenses, required by all motor carrier transporters of hazardous materials.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. Senate Bill 1082 (1993) restructured the regulation of hazardous materials in California through the creation of the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, known as the "Unified Program". The Unified Program consolidates the administration, permit, inspection, and enforcement activities of the following environmental and emergency management programs (known as Program Elements):

- Aboveground Petroleum Storage Act Program (APSA)
- Area Plans for Hazardous Materials Emergencies
- California Accidental Release Prevention Program (CalARP)
- Hazardous Materials Release Response Plans and Inventory Program (Business Plans)
- Hazardous Material Management Plan (HMMP) and Hazardous Material Inventory Statements (HMIS)
- Hazardous Waste Generation and Onsite Hazardous Waste Treatment Programs (also known as tiered permitting)
- Underground Storage Tank Program (UST)

The Unified Program is implemented at the local level by a Certified Unified Program Agency (CUPA). The CUPA servicing the jurisdiction including the City of Hawthorne is the Los Angeles County Fire Department. Currently 83 CUPAs have been certified by Cal EPA. Through the Program Elements, the CUPAs consolidate, coordinate, and establish consistency for hazardous materials and wastes programs which, prior to the Unified Program, had been handled by approximately 1,300 different state and local agencies.

California Health and Safety Code. California Health and Safety Code, Division 20, Chapter 6.95 establishing minimum statewide standards for business and area plans relating to the handling, release, or threatened release of hazardous materials. Provisions include regulations regarding chemical inventory reporting and business emergency plans. The City of Hawthorne has adopted these provisions of the Health and Safety Code under Title 8, Chapter 8.36 of the Hawthorne Municipal Code.

Hazardous Wastes Source Reduction and Management Review Act of 1989. The Hazardous Wastes Source Reduction and Management Review Act requires generators of 12,000 kilograms/year or more of operational hazardous wastes to evaluations of their waste streams every four years in order to formulate and implement viable source reduction mitigations. This Act does not apply to non-typical hazardous wastes, such as asbestos and polychlorinated biphenyls.

California Building Code (CBC). Title 24, Part 2 of the California Code of Regulations is the California Building Code (CBC). Incorporating the current Uniform Building Code, the model building code widely adopted across the United States, the CBC enacts minimum state-wide standards for building design and construction. Updated every three years by the California Building Standards Commission, the current 2013 CBC took effect January 1, 2014. CBC standards mandate safe accommodations for all substances that present a moderate explosion hazard, high fire or physical hazards, or potential health hazards.

California Fire Code (CFC). Title 24, Part 9 of the California Code of Regulations is the California Fire Code (CFC). Updated every three years, the current 2013 CFC took effect January 1, 2014. The CFC establishes regulations consistent with national standards for protections against hazards resulting from fire and explosion, safety hazards in buildings and on premises, handling of hazardous materials, as well as some language on provisions for emergency response personnel.

Local

Los Angeles County Airport Land Use Plan. As previously discussed in the Environmental Setting section under Airport Safety, airport safety for both the Hawthorne Municipal Airport and LAX is regulated by the FAA, the Los Angeles County Airport Land Use Commission and affected local jurisdiction. Safety zones are identified on maps Los Angeles County Airport Land Use Plan.

Hawthorne General Plan Safety Element. The Safety Element of the City of Hawthorne's General Plan establishes goals and policies intended to reduce the risk of exposure to adverse effects of natural and man-made issues. The following goal and policies are designed to provide the community with an acceptable level of safety and protection from hazards relating to hazardous materials and wastes:

Goal 1.0: Minimize the hazards to public health, safety, and welfare and prevent loss of life, bodily injury, and property damage resulting from natural and man-made occurrences.

> **Policy 1.1:** Continue to cooperate with and support in every way possible the Federal, State, and County Agencies responsible for the enforcement of Federal, State, and local health, Safety, and environmental laws.
>
> **Policy 1.2:** New development shall not subject other property to unreasonable hazards or risk of natural disaster.
>
> **Policy 1.4:** The City shall maintain and update as needed a comprehensive emergency plan consisting of measures to be taken during and after an earthquake, flood, toxic/hazardous spill, or other disaster.
>
> **Policy 1.5:** The City shall identify existing or previously existing hazardous waste generators or disposal sites.
>
> **Policy 1.6:** The City shall identify all producers, users, and transporters of hazardous material and wastes within the City and establish a system to monitor the handling, transport, and disposal of such wastes.

Policy 1.8: The City shall consider utilizing the services of a grants writer in the emergency preparedness section of the Fire Department.

Hawthorne Municipal Code. Municipal Code Title 15 (Buildings and Construction), Chapter 15.04 (Building Code) adopts the 2013 CBC.

Standard of Significance

A project impact would be considered significant if the project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.
- Contribute to cumulative hazards and hazardous materials impacts in the area.

Impacts and Mitigation Measures

Impact 3.6-1 – Hazardous Materials Use

Specific Plan

Implementation of the proposed DHSP would result in significant impacts if development permitted by the Plan would expose people, structures, schools, or the environment to hazards, dangers, or risks associated with hazardous materials and wastes. Impacts include potential significant risks to the public or environment relating to the routine use, storage, transportation, or disposal of hazardous materials; to reasonably-foreseeable accidental conditions involving hazardous materials releases and emissions; to handling or release of hazardous materials or wastes within one quarter mile of an existing or proposed school site; or if development projects pursuant to DHSP implementation would be located on hazardous material-contaminated sites.

Hazardous materials are generally associated with industrial land uses and operations. The DHSP plan area covers 786 acres or slightly under 1.25 square miles; as detailed in *Chapter 2, Project Description*, existing industrial land uses total 3.9 acres, or 0.5 percent of the proposed DHSP. Implementation of the proposed DHSP is projected to result in a net decrease of 317 residential dwelling units and a net increase of approximately 2.17 million square feet of non-residential land uses by the buildout year 2035. The Plan proposes land use categories for a range of residential, commercial, mixed use, and public land uses, but does not allow or include land uses, such as heavy industry, that would involve the handling or storage of large quantities of hazardous materials and hazardous wastes.

While no heavy industry land use or major industrial activities are present, the DHSP area does contain numerous sites that are the locations of limited generation, handling, or storage of hazardous materials, including dry cleaners, gas stations, and auto repair shops. Routine operational and maintenance activities at these and other commercial sites may involve the storage and use of paints, coatings, gasoline, oils, solvents, adhesives, caulks, and cleaning products. New development under the proposed Plan could include properties containing limited amounts of hazardous material such as these existing locations. Hazardous materials would be relatively low in both quantities and concentrations, compared to industrial uses. Any handling of hazardous materials would be subject to federal, state, and local policies regarding the generation, use, storage, disposal, and transportation of hazardous materials, as described previously.

In addition, the California Building Code standards mandate safe accommodations for all substances that present a moderate explosion hazard, high fire or physical hazards, or potential health hazards. Compliance with existing federal, state, and local laws regarding storage would maximize containment of hazardous materials into designated areas and establish procedures for prompt and effective clean-up should accidental release occur. Compliance with these existing policies, regulations, and procedures would ensure ***less than significant*** impacts relating to hazardous materials.

Transformative Projects

Buildout through the year 2020 of Transformative Projects will generate a net increase of 655 multi-family residential units, and a net increase of 822,700 square feet of non-residential building space. As with the DHSP in total, the proposed zoning categories for the Transformative Projects include a range of residential, commercial, mixed use, and public land uses, but does not include land uses that would involve the handling or storage of large quantities of hazardous materials and hazardous wastes, such as heavy industry. Therefore, impacts from the use of hazardous material on the Transformative Projects is considered ***less than significant***.

Mitigation Measures 3.6-1 – Hazardous Materials Use

No mitigation measures are required given continual compliance with existing regulations regarding the handling of hazardous materials; however, to further facilitate business operations within the DHSP area, as well as encourage the reduced use of hazardous substances for residential and commercial purposes, the following mitigation measure is recommended:

- The City shall encourage the reduction of residential and commercial use of hazardous materials by providing public information on minimizing the purchase and use of toxic material products, or to utilize non-toxic alternatives.

Impact 3.6-2 – Hazardous Material and Waste Sites

Specific Plan

The Geotracker and EnviroStor databases identify the two sites within the Plan area and seven sites within one quarter miles of the Plan area that are active or open cases. As presented in previous **Table 3.6-1** and **Figure 3.6-1**, the two sites within the Plan area include are located at 4558 Imperial Highway and 11741 Hawthorne Boulevard. Both sites are gas stations and require LUST cleanup. According to Geotracker, both are open cases and an approved remediation has been selected and is being implemented at the sites. In addition, six LUST sites located within one quarter miles of the Plan area have open-remediation status. One LUST cleanup site is also an open case but is identified as eligible of closure, which means that the case is going through the process of being closed. Therefore, impacts at all of the sites are considered ***less than significant***.

Transformative Projects

No known hazardous material sites are associated with any of the four Transformative Project areas. Hence, potential hazardous impacts within these four Transformative Project areas would be similar to those already discussed above for the Specific Plan area in general. However, as illustrated in previous **Figure 3.6-1**, LUST site No. 1 (455 Imperial Highway) is located approximately one-half mile northwest of the St. Joseph's Plaza (T4) site and LUST site No. 2 (11741 Hawthorne Boulevard) is located one-tenth of a mile north of the T4 site. LUST site No. 2 is also located approximately one-quarter of a mile north of the Hawthorne Mall (T1) site. Since both sites are open cases and are currently under remediation, hazardous impacts are considered ***less than significant***.

Mitigation Measures 3.6-2

No mitigation measures are required; however, if any future project sites are identified as hazardous wastes sites or potential contaminated sites, the following mitigation measures are required:

- Prior to the sale or development of a property where the City is involved with the financing or acquisition of the property, the City shall require a full Phase I Environmental Assessment of the site (ESA). The Phase I ESA is to be prepared in accordance with ASTM Standard Practice E 1527-05 or the Standards and Practices for All Appropriate Inquiry (AAI). In addition, an environmental consultant, familiar with the handling of hazardous wastes, should be either on-site or on-call to properly remove and dispose of any hazardous waste encountered during the excavation and/or grading of the site.
- For construction requiring soil excavation and soil filling in areas of known commercial and industrial uses, proper sampling shall be required prior to the disposal of the excavated soil and a full Phase I ESA for redevelopment of commercial and industrial properties involving hazardous materials or waste.
- If construction activities result in the discovery of unknown substances that are suspected to contain hazardous wastes or materials, the contractor shall implement the following procedures:
  - Immediately cease work in the vicinity of the suspected contaminant.
  - Remove workers and the public from the area.
  - Notify the City's Building and Safety Department and secure the area as directed.
  - Prepare and initiate a Site Health and Safety Plan, congruent to OSHA requirements, may be deemed necessary before the commencement of work in any areas found to be contaminated.

Level of Impact After Implementation of Mitigation Measure 3.6-2

Implementation of identified Mitigation Measures for Impact 3.6-2 will remain ***less than significant***.

Impact 3.6-3 – Hazardous Material and Construction Activities

Specific Plan

Specific development projects for the DHSP area have yet to be formulated, with the exception of the five Transformative Projects. It is presumable that some existing buildings will be demolished during the implementation and buildout of the DHSP. Structures built prior to 1978 likely contain amounts of asbestos-containing materials (ACMs) and lead-based paint (LBP).[2] ACMs are building materials containing more than one percent asbestos, and inhalation of asbestos fibers can result in serious health problems. The presence of LBP does not necessarily constitute a hazard, if paint is in good condition without flaking or peeling; however in poor conditions LBPs can have potentially severe health effects on building occupants, especially children.

According to parcel data from the Los Angeles County Assessor's Office, approximately 88 percent of parcels that included the date of building construction in the Plan area had structures built prior to 1978. While this information is not complete and does not indicate any rehabilitation or remediation of ACM and LBP, it does suggest that a large portion of the buildings in the Plan area have the potential to cause health risks.

Site development within the DHSP could involve increases in the prevalence of hazardous or potentially hazardous materials during project construction phrases. For example, petroleum-based products (gasoline, diesel fuel, and lubricants) are used in operation and maintenance of construction equipment and fleet vehicles, and could be handled or disposed of at development sites or en-route to/from sites. This usage of hazardous material is considered to be temporary during the DHSP project implementation, and compliance with existing regulations, procedures, and policies, as described above, would ensure construction-phrase handling of hazardous materials and wastes would result in *less than significant* impacts; however, the presence of ACM and LBP will remain unknown until inspections are conducted for these material. This is considered a potentially ***significant*** impact.

Transformative Projects

The Hawthorne Mall Transformative Project (T1) and the St. Joseph's Transformative Project (T4) are proposed for demolition and grading. The development of the other two Transformative Projects may include some demolition, however, the precise percentage is not currently known. Therefore, the presence of ACM and LBP will remain unknown until inspection are conducted for these material. This is considered a potentially ***significant*** impact.

[2] *By 1978, the federal Consumer Product Safety Commission had phased out the sale and distribution of residential paint containing lead. It is estimated that over 80 percent of all housing built prior to 1978 contain levels of LBPs. While not completely banned in the United States, ACMs have lost their wide-spread use for building and commercial purposes since public health concerns and awareness rose in the 1980s.*

Mitigation Measure 3.6-3

Therefore, to counter adverse health risks from any potential exposure to ACMs and LBP, it is required that the following mitigation measure be implemented for any projects that include major rehabilitation or demolition of existing structures.

- Prior to obtaining a demolition permits for buildings constructed prior to 1978, the City will require that an ACM and LBP tests be conducted for those structured affected. The results of the tests must be included with the demolition permit application for City review. A Cal OSHA-certified building inspector will conduct an asbestos survey to determine if any asbestos or ACMs are present. Asbestos removal, should it be found, will be conducted pursuant to regulations contained in SCAQMD Rule 1403. For investigations of LBPs, any paint waste, separated by physical or chemical means from underlying building material, shall be evaluated independently of other material wastes to determine presence of lead. If LBPs are found, abatement procedures will be undertaken prior to demolition; contractors will provide evidence of these abatement activities to the City Building and Safety Department. The removal and disposal of LBP will be conducted pursuant to Cal OSHA's Lead in Construction Standard (CCR Title 8, Section 1532.1).

Level of Impact After Implementation of Mitigation Measure 3.6-3

After implementation of identified Mitigation Measure 3.6-3, Impact 3.6-2 will be mitigated to ***less than significant levels***.

Impact 3.6-4 – Schools

Specific Plan

Table 3.6-2 details school types and locations in and within a quarter mile of the DHSP area. Listed are five schools within the DHSP area, and ten schools located within one-quarter mile of the Plan area boundaries, including four school sites located in the neighboring communities of Lennox and Lawndale within that distance. Additionally, numerous preschools, day care, and after-school care facilities are located within the vicinity of the proposed DHSP area.

The use of hazardous materials within the Plan area would be relatively low in both quantities and concentrations due to the lack of proposed heavy industrial uses. Any handling of hazardous materials would be subject to federal, state, and local policies regarding the generation, use, storage, disposal, and transportation of hazardous materials. Compliance with these existing policies, regulations, and procedures would ensure ***less than significant*** impacts relating to hazardous materials.

3.6-2: Schools In and Within the Vicinity of DHSP Area

School	Grades	Address
Schools within DHSP area		
Washington Elementary	Public K-5	4339 W 129th St
Hawthorne Middle School	Public 6-8	4366 W 129th St
Hawthorne Math & Science Academy	Charter 9-12	4467 W Broadway
St. Joseph's Catholic School	Private PK-8	11886 Acadia Ave
Hawthorne Academy	Special Education 9-12	12500 Ramona Ave
Schools within ¼ miles of DHSP		
Eucalyptus Elementary	Public K-5	12044 Eucalyptus Ave
Jefferson Elementary	Public K-5	4091 W 139th St
Ramona Elementary	Public K-5	44617 W 136th St
York Elementary	Public K-5	11838 S York Ave
Trinity Lutheran School	Private K-8	4783 W 130th St
Hawthorne High School	Public 9-12	4859 W El Segundo Blvd
Moffett Elementary	Public K-5	11050 Larch Ave, Lennox
Lennox Middle School	Public 6-8	11033 Buford Ave, Lennox
Leuzinger High School	Public 9-12	4118 Rosecrans Ave, Lawndale
Billy Mitchell Elementary	Public K-5	14429 Condon Ave, Lawndale

Transformative Projects

Potential impacts of hazardous materials on schools located in the vicinity of the Transformative Projects would be similar to those already discussed above in Specific Plan Impact 3.6-3. Hence, hazardous material impacts on school is considered ***less than significant***.

Mitigation Measure 3.6-4

No mitigation measures are required.

Level of Impact After Implementation of Mitigation Measure 3.6-4

No mitigation measures required and Impact 3.6-4 remains ***less than significant***.

Impact 3.6-5 – Transport of Hazardous Materials

Specific Plan

The Safety Element of the City of Hawthorne 1989 General Plan establishes that transportation of

hazardous materials should be concentrated on major arterials and other streets away from residential areas "to the greatest extent possible". Designated routes for hazardous wastes include both north-south (Inglewood Avenue, Hawthorne Boulevard, Prairie Ave) and east-west (Imperial Highway, El Segundo Boulevard, Rosecrans Avenue) major thruways that transcend or border the DHSP area. Outside of the Plan area, other City-designated routes include Marine Avenue, running east-west, and major arterials directed north-south (Aviation Boulevard, Crenshaw Boulevard, Van Ness Avenue, Western Avenue) in addition to the I-405 Freeway.[3] Regulations and standards for the safe transportation of hazardous materials are developed by the USDOT Office of Hazardous Materials Safety, and are included in Title 40, 42, 45 and 49 of the CFR. The Los Angeles County Fire Department responds to all hazardous materials incidents within the City and the California Highway Patrol responds to spills on the I-105 Freeway.

The transportation of hazardous or acutely hazardous materials can result in accidental spills, leaks, toxic releases, and major safety hazards including fire or explosion. The incremental increase in transportation of hazardous materials through the implementation of the DHSP cannot be definitely predicted, as detailed plans of potential development projects outside of the Transformative Projects are not yet available. However, appropriate documentation and safe handling procedures for all hazardous materials and wastes that is transported to, within, or from the DHSP area would be required to adhere to US DOT procedures. Compliance with all federal, state, and local legislation related to the transportation of hazardous materials would reduce the probability and severity of accidents during transit to an acceptable level of risk, thereby resulting in ***less than significant*** impacts.

Transformative Projects

Potential impacts of transporting hazardous materials within the four Transformative Project areas would be similar to those already discussed above in Specific Plan Impact 3.6-5 in general. Hence, the impact of transporting of hazardous material impacts on the Transformative Projects are considered ***less than significant***.

Mitigation Measure 3.6-5

No mitigation measures are required.

Level of Impact After Implementation of Mitigation Measure 3.6-5

No mitigation measures required and Impact 3.6-5 remains ***less than significant***.

[3] *Figure 2, Hazardous Waste Routes, in Safety Element of the City of Hawthorne 1989 General Plan.*

Impact 3.6-6 – Rail Crossings

Specific Plan

As discussed in the Rail Safety section of the this Chapter, a Union Pacific Railroad line traverses the Plan Area and crosses Hawthorne Boulevard between Broadway and 126th Street. The line also traverses through residential neighborhoods west and north of the Hawthorne Boulevard. Although rail traffic is minimal — one freight train west bound in the morning and returning east bound in the afternoon — the potential for traffic accidents at the various rail crossings may increase with the level of vehicle traffic generated by the proposed DHSP (see Section 3.2 Transportation/Traffic). Thus, the implementation of the Specific Plan may adversely affect public safety at railroad/road crossings, and is therefore considered a ***significant*** impact.

Transformative Projects

The Union Pacific Railroad line is located in the Hawthorne Mall Transformative Project (T1) and is a portion of the northern boundaries of the Civic Center Transformative Project (T2). All other Transformative Projects are not affected by the railroad line. Due to the immediate location of the railroad line to T1 and T2, there is a potential adverse public safety impact on these two Transformative Projects, and is therefore considered a ***significant*** impact.

Mitigation Measure 3.6-6

The following mitigation measures are recommended:

- Appropriate fencing to limit the access of trespassers to railroad right-of-way.
- Examine alternative pedestrian and traffic circulation patterns.
- All at-grade rail/traffic crossings shall include appropriate warning and safety improvements to minimize conflicts that may occur between vehicles and trains.
- City shall coordinate with the Public Utilities Commission regarding rail crossing safety issues.

Level of Impact After Implementation of Mitigation Measure 3.6-6

Identified Mitigation Measures 3.6-6 would reduce potential significant impacts related to rail crossing safety to ***less than significant*** levels.

Impact 3.6-7 – Airport Safety

Specific Plan

As illustrated in previous **Figure 3.6-2**, Los Angeles County Airport Land Use Plan - Safety Zones, the DHSP area is located in the vicinity of the Hawthorne Municipal Airport which is located approximately one-quarter mile to the east and LAX, which is located approximately one mile to the northwest. Airport safety is regulated by the FAA and Los Angeles County Airport Land Use Commission, which prepared the Airport Land Use Plan. The figure also indicates that the DHSP area

is not located within the safety zones (Approach Surface and Runway Protection Zones) established in the ALUP. Airport safety impacts associated with the implementation of the DHSP are considered ***less than significant***.

Transformative Projects

None of the four Transformative Projects are located within the ALUP safety zones of Hawthorne Municipal Airport or LAX, and is therefore considered ***less than significant***.

Mitigation Measure 3.6-7

No mitigation measures are required.

Level of Impact After Implementation of Mitigation Measure 3.6-7

No mitigation measures required and Impact 3.6-7 remains ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No unavoidable significant adverse impacts are anticipated.

3.7 Hydrology and Water Quality

This section discusses the potential impacts on hydrology and water quality that could result from the implementation of the proposed DHSP.

Environmental Setting

Hydrology

The City of Hawthorne is located within the Dominguez Channel Watershed, which drains an area of approximately 133 square miles[1] in the southern portion of the Los Angeles Basin. The watershed also encompasses the cities of Carson, Compton, El Segundo, Gardena, Inglewood, Lawndale, Lomita, Long Beach, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, Torrance, Port of Long Beach, Port of Los Angeles, and portions of the City of Los Angeles and unincorporated Los Angeles County[2] totaling a population of roughly one million. The watershed area drains to the Dominguez Channel which originates in Hawthorne, spans 15.7 miles, and discharges into the Los Angeles Harbor and out to the Pacific Ocean[3]. The DHSP area lies approximately 1.5 miles east of the Dominguez Channel.

The Mediterranean climate of the Dominguez Channel Watershed is characterized by warm summers and mild winters[4]. Average annual rainfall is 12 inches with most precipitation occurring between November and March or April. Rainfall can vary greatly between the South Bay's coastal plains and Santa Monica Mountain range[5]. The Dominguez Watershed is located within a highly developed urban area of industrial, transportation, commercial, and residential uses covered by roughly 62 percent impervious surfaces[6]. Urban development accelerated rapidly by the 1970s, before which the area was largely marshland. Few open or vacant spaces exist within the region. Hawthorne, along with the City of Inglewood, contains one of the highest population densities within the watershed. The watershed is made up of two hydrologic sub-units. The northern sub-unit drains into the Dominguez Channel, while the southern sub-unit drains into the Los Angeles and Long Beach Harbors. The watershed area is made up of an extensive network of underground storm drains. The Channel drains approximately 62 percent of the watershed area before discharging into the Los Angeles Harbor. The San Pedro Bay receives the discharges coming from the Dominguez Channel[7].

Water Quality

In the City of Hawthorne, water quality is regulated by the State of California Water Quality Control Board (WQCB) Los Angeles, Region 4. The County issues permits to discharge stormwater runoff under the NPDES Permit CAS614001, issued by the WQCB. The WQCB requires that all new

[1] *http://www.lastormwater.org/wp-content/files_mf/dcdraftcimp2014.pdf*
[2] *http://ladpw.org/wmd/watershed/dc/*
[3] *http://www.lastormwater.org/about-us/about-watersheds/dominguez-channel/*
[4] *http://www.ladpw.org/wmd/watershed/dc/DCMP/docs/Section%202%20Background%20Information%20Report.pdf*
[5] *http://www.ladpw.org/wmd/irwmp/Docs/Prop84/SP/Subregional%20Plan%20%28South%20Bay%29%202012-07-10%20Draft.pdf*
[6] *http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/66_New/06_0530/Revised%20Project%20Plan%20051006.pdf*
[7] *http://ofmpub.epa.gov/waters10/attains_impaired_waters.show_tmdl_document?p_tmdl_doc_blobs_id=60302*

development captures and retains or filters the first ¾ inches of rainfall on site. Streams in the region are typically dry in the summer months consistent with regional rainfall patterns. The Dominguez Channel Watershed receives an average of 12.1 inches of rain per year, with approximately 0.55 inches of that during summer. During dry-season, however, the Watershed experiences man-made flow sources originating from NPDES permitted discharges, runoff from urban irrigation, and other human activities like car washing. There are over 100 permitted discharges within the Dominguez Channel; total permitted discharge is approximately 190 cubic feet per second[8].

Section 305(b) of the Clean Water Act (CWA) mandates water quality assessments of the nation's water resources. These water quality assessments are used to identify and list impaired waters. The CWA requires that each state create a 303(d) list to "identify those waters within its boundaries for which the effluent limitations are not stringent enough to implement any water quality objective applicable to such waters. The CWA also requires states to establish a priority ranking for impaired waters and to develop and implement Total Maximum Daily Loads (TMDL). A TMDL specifies the maximum amount of a pollutant that a waterbody can receive while still meeting water quality standards. The waters of Dominguez Channel and Dominguez Channel estuary, Los Angeles, and Long Beach Harbors are impaired by heavy metals and organic pollutants. Each of these water bodies are included on the 303(d) list for one or more of the following pollutants: cadmium, chromium, copper, mercury, lead, zinc, chlordane, dieldrin, toxaphene, DDT, PCBs, and certain PAH compounds. Flow and water quality in the Dominguez Channel are measured at the Dominguez Channel Monitoring Station S28 (mass emission station) located near the center of the watershed in the City of Torrance as part of the Los Angeles County MS4 Permit Core Monitoring Program. [9]

Flooding

The Dominguez Channel is primarily used for flood control purposes. The Los Angeles County Flood Control District (LACFCD) was formed in 1915 in response to major flood occurrences throughout the Los Angeles Basin, providing damage protection for the harbors, waterways, streets, and property. The Dominguez Channel was constructed in response to a major flood event in 1938, and provides protection from a fifty-year storm event for a majority of the South Bay region[10]. Drainage within the dominantly urban Dominguez Channel Watershed area occurs through a large network of underground storm drains originating at street curb inlets.

The Dominguez Channel design discharge is contained within the channel; overbank flooding from the channel does not occur except on very rare events exceeding design discharge. Federal Emergency Management Agency (FEMA) designates flood zones within the Dominguez Watershed. Flood zones are not located along the main channels. The largest area of flooding is at Long Beach Harbor associated with coastal flooding from the Pacific Ocean[11]. No large bodies of water or levees are located uphill from the DHSP area[12].

[8] *http://www.ladpw.org/wmd/watershed/dc/DCMP/docs/Section%202%20Background%20Information%20Report.pdf*
[9] *http://ofmpub.epa.gov/waters10/attains_impaired_waters.show_tmdl_document?p_tmdl_doc_blobs_id=60302*
[10] *http://www.ladpw.org/wmd/watershed/dc/DCMP/docs/Section%202%20Background%20Information%20Report.pdf*
[11] *http://www.ladpw.org/wmd/watershed/dc/DCMP/docs/Section%202%20Background%20Information%20Report.pdf*
[12] *Hawthorne Initial Study, 2014*

Groundwater Basin

The Dominguez Watershed is located within the Los Angeles sedimentary basin. The groundwater basin underlying the Dominguez Watershed is the West Coast Basin (WCB), which is comprised of four major aquifers. The WCB is approximately 144 square miles. It is bounded to the south by the Palos Verdes Hills, the west by the Pacific Ocean, the north by the Santa Monica Basin, and to the east by the Central Basin. The West Coast and Central basins are separated by the Newport-Inglewood Fault[13].

Regulatory Framework

Federal Regulations

Clean Water Act (CWA). The Clean Water Act was enacted with the primary purpose of restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters. The EPA has delegated responsibility for implementation of portions of the CWA to the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) for water quality control planning and control programs, such as the National Pollutant Discharge Elimination System (NPDES) Program. Section 401 of the CWA stipulates that an applicant for a Section 404 permit to discharge dredged or fill material into waters of the United States must first obtain a certificate from the relevant State agency stating that the fill is consistent with the State's water quality standards. The authority to either grant water quality certification or waive the requirement is delegated by the SWRCB to its nine RWQCBs.

Federal Emergency Management Agency (FEMA). The Federal Emergency Management Agency administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA's Flood Insurance Rate Maps (FIRMs) identify which land areas are subject to flooding and provide design standards for flood protection. FEMA's minimum level of flood protection for new development is the 100-year flood event.

National Pollutant Discharge Elimination System (NPDES): NPDES is a program authorized by the Clean Water Act to regulate point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. Since its introduction in 1972, the NPDES permit program is responsible for significant improvements in national water quality.

State Regulations

State Water Resources Control Board (SWRCB). The State Water Resources Control Board has broad authority over water quality control issues for the State and was created by the State Legislature in 1967. The SWRCB is responsible for developing statewide water quality policy delegated to the State

[13] *http://www.ladpw.org/wmd/watershed/dc/DCMP/docs/Section%202%20Background%20Information%20Report.pdf*

by the federal government under the Clean Water Act. Additional California agencies with some jurisdiction over water quality in the state are the California Department of Health Services (DHS) for drinking water regulations, the California Department of Pesticide Regulation, the California Department of Fish and Wildlife (CDFW), and the Office of Environmental Health and Hazard Assessment.

Regional Water Quality Control Board (RWQCB). The SWCRB has nine regional water quality control boards that exercise rulemaking and regulatory activities by basins. This organization resulted from the Porter-Cologne Act. Hawthorne is part of the RWQCB's Region 4 (Los Angeles Regional Water Quality Control Board).

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act (codified in Division 7 of the California Water Code) of 1969 is the State's statutory authority for the protection of water quality. Under the Act, the State must adopt water quality policies, plans, and objectives that protect the State's waters including its streams, groundwater, isolated wetlands, and other bodies of water not under federal jurisdiction. The Act also requires that SWRCB and RWQCBs adopt water quality control plans (Basin Plans).

California Department of Fish and Wildlife (CDFW). The CDFW protects streams, water bodies, and riparian corridors under Sections 1601 to 1606 of the California Fish and Game Code. The Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying the CDFW and incorporating the proper mitigations or obtaining a streambed alteration agreement.

Local Regulation

Standard Urban Stormwater Mitigation Plan (SSUMP): In 1996, the Los Angeles RWQCB, Region 4, issued a NPDES permit as part of the municipal stormwater program incorporated cities within the County (Order No. 96-054, NPDES Number CAS614001). This permit requires the development and implementation of a program to address stormwater quality issues for private development - the Standard Urban Stormwater Mitigation Plan (SUSMP)**.** The SUSMP is in place to prohibit non-stormwater discharges and to reduce the discharge of pollutants from stormwater conveyance systems. The SUSMP includes a list of minimum required Best Management Practices that developers must include in their plans. The following types of development are required to comply with the provisions of the SUSMP: single-family hillside residences, one acre commercial developments (with the exception of heavy industrial or residential), automotive repair shops, retail gasoline outlets, restaurants, and residential subdivisions with ten or more housing units. The SUSMP-required elements must be shown in a Drainage Plan and Stormwater Mitigation Plan for the site.

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to water and hydrology if it would:

- violate any water quality standards or waste discharge requirements.

- substantially deplete ground water supplies or interfere substantially with ground water recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses for which permits have been granted).
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.
- create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.
- otherwise substantially degrade water quality.
- place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- place within a 100-year flood hazard area structures which would impede or redirect flood.
- expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
- inundation by seiche, tsunami, or mudflow.

Impacts and Mitigation Measures

This section assesses the project impacts on water quality. Other issues related to hydrology are addressed in *Chapter 5: CEQA Mandated Analysis* as environmental impact found to have no impacts or less than significant impacts.

Impact 3.7-1 Water Quality

Specific Plan

Water quality in the Hawthorne is regulated by the California Water Quality Control Board (WQCB), Los Angeles Region 4. The County issues permits to cities for stormwater runoff discharge under the National Pollutant Discharge Elimination System (NPDES) Permit CAS614001. The WQCB requires new development to include stormwater retention features to retain the first three-quarter inch of rainfall on site. Because most pollutants are found in the first three-quarter inch of rainfall, the long term impact of stormwater runoff discharge will be less than significant. In addition to WQCB requirements, the City of Hawthorne requires that all new development projects be reviewed by the City and County Departments of Public Works for adequate drainage improvement plans prior to the issuance of building permits. Moreover, all future development that includes a housing component will continue to incorporate Best Management Practices (BMPs) during construction to limit

pollutant discharge, in accordance with existing regulations[14]. Adherence to applicable development standards and policies, and the provision of needed public improvements will reduce potential impacts related to water quality and storm water discharge to a level of ***less than significant***.

Transformative Projects

Same impacts addressed for the Specific Plan also apply for each Transformative Project and, therefore, impacts on hydrology and water quality are considered ***less than significant***.

Mitigation Measure 3.7-1

No mitigation measures are required.

Level of Impact After Implementation of Mitigation Measure 3.7-1

Impacts of the proposed DHSP would be less than significant and no mitigation measures are required, therefore, impacts would remain ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

[14] *Initial Study, City of Hawthorne General Plan Amendment and Zone Change, 2014*

3.8 Aesthetics

This section of the EIR analyzes the potential impacts on the aesthetics, including potential changes in visual character and urban form, that could result from implementation of the proposed DHSP and development of the four Transformative Projects and other new development. For the purposes of this EIR, aesthetics refers to the general aesthetic effects including compatibility with visual characteristics of surrounding land uses, and the likelihood that adjacent uses (sensitive receptors) would be affected by light and glare generated or reflected by new structures.

Environmental Setting

Visual Character Overview

The proposed DHSP area is urbanized and predominately developed, and located within the broader urban context of the greater Los Angeles metropolitan area.

A viewshed is a geographic area composed of land, water, biotic, or cultural elements that may be seen from one or more viewpoints and that has inherent scenic qualities or aesthetic values determined by the individual viewers.

The views associated with the Plan area are characterized by natural and man-made features. Views of and within the Plan area are generally limited to immediately adjacent uses/structures. Generally views to the north, south, east, and west consist of adjacent developed uses of varying scale, including residential, commercial, retail, institutional/civic, office, and educational uses. Industrial uses are also located in the outlying areas. The Hawthorne Municipal Airport is located a few blocks east of the Plan area, and the Los Angeles International World Airport (LAX) is located approximately two miles toward the northwest. Distant background views of the Santa Monica Mountains can be seen from the Hawthorne Corridor. Although located within five miles of the Pacific Ocean, coastal shoreline views are not evident due to intervening distance, development and topography

The best views of the surrounding area are from a location in the vicinity of Ramona Avenue and 131st Street, where the elevation is approximately 120 feet above sea level — the highest point in the Plan area. Similar to views from within the Plan area, views of and through the Plan Area are dominated by commercial, institutional, office and residential uses. From this point, views of the Santa Monica Mountains and Baldwin Hills to the north and the Palos Verdes Peninsula to the south can be observed.

View looking south toward Palos Verdes Peninsula

Hawthorne Boulevard and Imperial Highway are significant transportation and activity

corridors in the City and are accessible from the surrounding freeways. These access points serve as visual gateways to the city of Hawthorne.

Section 3.1, Land Use and Planning, provides a more detailed description of existing land uses and development intensities throughout and surrounding the Plan area.

Artificial Light and Glare

Major sources of light and glare typically include light from street and parking lot lights, illuminated signage, headlights from vehicles, outdoor security lighting, and indoor lighting (that is visible through unshielded windows or openings). The types of land uses that are typically sensitive to excess light and glare include homes, hospitals, senior housing, and other types of uses where excessive light may disrupt sleep. In addition, excessive light and glare may interfere with the vision of drivers.

Glare results from sharply reflected light caused by sunlight or artificial light reflecting from highly finished surfaces such as window glass or brightly colored surfaces. Glare is a common phenomenon in the urbanized areas throughout southern California, mainly due to the high proportion of days per year with direct sunlight and the highly urbanized nature of the area. Glare from very bright artificial surfaces can be considered a nuisance.

Since the proposed DHSP area is urban in nature, the existing area consistently generates and is exposed to artificial light. A variety of sources produce artificial light within the Plan area, including streetlights, automobile headlights, and interior and exterior lighting from commercial and office buildings. These light sources are most noticeable during nighttime hours.

Shade and Shadow

The low-to-midrise buildings within the Plan area presently create limited shade and shadow patterns that are contained within a close proximity to each building

Regulatory Framework

Federal

There are no federal regulations pertaining to visual resources within the DHSP and Transformative Projects area.

State

There is no state of California regulation pertaining to visual resources within the DHSP and Transformative Projects area.

Local

The City's General Plan Land Use Element contains policies related to visual resources that would apply to the proposed DHSP area. The Land Use Element serves as a long-range guide for land use and development in the City. This element indicates the type, location, and intensity of development and land uses permitted in the City. One objective of the element is to improve the overall physical appearance within the City and minimize potential land use conflicts. Specifically, the Hawthorne General Plan addresses the issue of compatibility between existing and future development though thoughtful design.

The Land Use Element of the City's General Plan contains the following policies concerning aesthetics and urban design.

Policy 2.2: The construction of very large buildings shall be discouraged where such structures are incompatible with surrounding residential development.

Policy 2.3: A specific plan for the Hawthorne Boulevard corridor shall be prepared.

Policy 2.4: Retention of buffer zones to protect adjacent areas of freeway corridor from noise, exhaust, and light shall be encouraged.

Policy 2.5: Billboards and obtrusive advertising media near residential areas and locally-oriented commercial corridors shall be discouraged.

Policy 2.7: Encourage the development of unified commercial centers and neighborhood commercial centers rather than the continued development of "strip commercial.

Policy 2.8: The residential character of the City shall be substantially single-family detached housing.

Policy 2.10: The City shall evaluate the feasibility and appropriateness of adopting form-based zoning codes or some hybrid version.

These policies, as well as the Plan's consistency with these policies and other land use policies that may indirectly influence urban form, are discussed in *Section 3.1, Land Use and Planning*, of this EIR.

Standard of Significance

This analysis of aesthetic impacts focuses on the nature and magnitude of changes in the visual character of the Plan Area due to implementation of the proposed project, the visual compatibility of future permitted land uses and adjacent uses, and the introduction of sources of light, glare and shadows. Implementation of the proposed DHSP would have a significant impact related to aesthetics if it would introduce structures or elements that would be inconsistent with existing patterns of development, thereby degrading the visual character or quality of the Plan Area, or creating substantial sources of light or glare, or where documented and important scenic resources or scenic vistas would be damaged or destroyed.

More specifically, the following thresholds of significance are based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the DHSP may have a significant adverse impact on aesthetics/visual resources if it would result in any of the following:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

Additionally, the proposed DHSP would be considered to create significant shade/shadow impacts if shade/shadow from the project development results in a substantial loss of sunlight in a residential area or other sensitive receptor (e.g., school or park).

Impacts and Mitigation Measures

Impact 3.8-1 Construction Activity

A substantial impact could occur if short-term construction within the Plan area would permanently alter or substantially detract from the visual character or quality of the Plan area.

Specific Plan

Visual impacts associated with any construction activities resulting from development or individual projects (including Transformative Projects) that might be constructed over time would include exposed pads and staging areas for grading, excavation, and construction equipment. In addition, temporary structures could be located intermittently within the Plan area during various stages of demolition or construction, within materials storage areas, or associated with construction debris piles on site and off site. Also, exposed trenches, roadway bedding (soil and gravel), spoils/debris piles, and possibly steel plates would be visible for utilities infrastructure improvements, as well as for roadway improvements. Due to the built-out nature of the Plan area, future development projects would most likely be localized at project-specific locations on previously developed sites, which would not necessitate mass grading over large undeveloped areas.

In addition, these visual conditions would be temporary and consistent with visual disruptions typical of construction activities and commonly encountered in developed areas. In addition, the City's building code requires screening and pedestrian protection for sidewalks during construction activities. Therefore, this short-term impact would be ***less than significant***.

Transformative Projects

Implementation of the Transformative Projects would be similar to that of other development projects within the DHSP, and construction activity related to such would result in short-term, temporary disruption of the visual character as the specific localized area of construction.

One exception would be the redevelopment of the T1 (Hawthorne Mall) site, which would be demolished and developed to include 608 residential units and approximately 2.5 million square feet non-residential uses. Construction at the T1 site is anticipated to take place over a 3 to 5 year time span. During the first 6 – 12 months, the character of the site would be perceived as one of intense construction activity due to the demolition, hauling and excavating activity necessary to clear and prepare the 20-acre site for future development. During the demolition/site preparation construction phase, the visual aspects of the site would include visible heavy duty construction equipment, including cranes, heavy-duty hauling trucks, debris and dirt piles and similar aspects. Following the demolition/site preparation stage, the type of construction activity at the site would shift to construction and is anticipated to involve cranes that may extend up to 100 feet tall, cement trucks, large trucks hauling construction materials and heavy-duty construction equipment typical to such construction. These features are anticipated to dominate the visual character of the T1 site (and the immediate surrounding roadways) for up to 36 months.

Aesthetic impacts due to construction-related visual disruption could be significant due to duration of the construction period required for the demolition of the existing mall and construction of new structures at the T1 site. Although demolition of the existing mall and construction of the new facilities would be considered temporary, those activities could extend for an approximate five-year duration, effectively altering the visual appearance of the surrounding area and resulting in temporary aesthetic impacts. Construction staging areas are anticipated to be placed within the T1 site and along local streets. However, it is anticipated that the majority of construction-related activity and staging, including equipment storage, debris sorting and truck staging, would occur within the project site. Some truck staging and construction-working parking may spillover onto adjacent streets. Being located and contained within the T1 site, much of the construction activity would be screened from public view, as well as screened from residents along Birch Street, by construction fencing and screening.

Because these impacts are short-term and temporary in nature, they are not considered to have a substantial adverse long-term effect on a visual quality of the project area or adjacent neighborhood. Overall, construction activities would not substantially degrade the existing visual character or quality of the site and its surroundings; however, measures should be implemented to reduce the potential significance of short-term effects for longer-phase construction activity that lasts beyond a six month period. During project construction, measures to minimize visual impacts to existing neighboring development and along the Hawthorne Boulevard public corridor shall be implemented. These could include (but not be limited to) limiting the hours of construction, temporary screening, dust control measures and locating staging/construction parking areas away from residential areas. Hence, construction activities would not substantially degrade the existing visual character or quality of the site and its surroundings, and are therefore would not be considered significant. Because the

construction activity related to the Transformative Projects would be required to comply with the City's building code, which requires screening and pedestrian protection for sidewalks during construction activities, short-term construction impacts would be ***less than significant***.

Mitigation Measures 3.8-1

The proposed DHSP would not result in any significant plan or project-specific impacts to the visual character/quality due to short-term and intermittent construction activity, therefore no mitigation measures related to aesthetics are required.

Level of Impact After Implementation of Project Mitigation

The impacts of the proposed Project would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.8-2 Visual Character and Urban Form

A substantial impact could occur if the proposed DHSP would substantially degrade the existing visual character or quality of the site and its surroundings.

Specific Plan

The proposed DHSP would allow for the development of higher-intensity mixed-use projects consisting of residential, office, commercial, hotels, entertainment and open space uses within an existing urbanized community. A variety of massing and forms would be encouraged to introduce variety and to ensure that new development strengthens and would not detract from the visual quality of existing neighborhoods.

Development throughout the DHSP area would encourage connections and linkages to sites within the Plan Area and surrounding community, and would facilitate pedestrian activity and visual connectivity along the street corridors through active sidewalks and public spaces. To establish interaction between the properties and reinforce the long-term development of the DHSP area as pedestrian friendly, streetscapes utilizing a large variety of trees and open/joint-use spaces are planned. To further establish human scale and interest and a sense of urban variety and liveliness, architectural diversity with regard to unit types, building types, massing, forms and styles would be strongly encouraged. Public art would be introduced within the Plan area.

The incorporation of new landscaping and streetscape within the Plan area, including special focus on the transit areas, would provide an additional visual improvement to the City. New landscaping would occur as new private developments are implemented throughout the Plan area and as public improvement projects under the Implementing Actions are implemented. These improvements would serve to soften and buffer views of the proposed structures.

In general, the new development projects that could be constructed would serve to improve the aesthetic character of the Plan area by replacing and eliminating currently vacant buildings that result in visual blight and are poorly maintained.

In general, implementation of the proposed DHSP would enhance the visual character of the area through the design and development objectives described above. Although future development could result in taller buildings in certain neighborhoods compared to existing uses, the overall changes that are proposed would be designed to create visually attractive and compatible uses. Additionally, future development would be required to adhere to policies identified in the City's General Plan and the DHSP, as well as the City's zoning standards, which require conditional review for buildings taller than five stories. Consequently, future development under the DSHP would improve the existing visual character of the community, and this impact would be ***less than significant***.

Transformative Projects

Implementation of the Transformative Projects would have a positive effect on establishing cohesiveness in urban form throughout the DSHP plan area and would enhance the overall sense of community. In general, development of the Transformative Projects would serve to improve the aesthetic character of the project area by replacing and eliminating buildings that are currently vacant or are poorly maintained, resulting in visual blight. This is especially exemplified with regard to the Hawthorne Mall (T1) and South Bay Ford (T3) sites.

Vacant Hawthorne Mall

As with the implementation of the DHSP generally, the Transformative Projects would be expected to comply with city-wide design policies and standards, and would undergo project design review to ensure that high quality design that is compatible with the surrounding areas would be employed. Consequently, development of the Transformative Areas would improve the existing visual character of the community, and this impact would be ***less than significant***.

Mitigation Measures 3.8-2

The proposed DHSP would not result in any significant plan or project-specific impacts to visual character/quality due to buildout and development within the Plan area, therefore no mitigation measures are required.

Level of Impact After Implementation of Project Mitigation

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Impact 3.8-3 Light and Glare

A substantial impact could occur if development occurring pursuant to the proposed resulted in new sources of daytime glare (from building surfaces) that create a substantial nuisance or potential

hazard, or result in new sources of spillover light or nighttime illumination. Generally, light poles and exterior lighting which spill over to adjacent properties may be considered adverse if these properties are considered light-sensitive uses, such as residential homes, hospitals, or nursing homes. In addition, driveway design, which directs vehicle headlights into sensitive land uses, could have adverse impacts. The use of reflective surfaces and facades on buildings could also create glare impacts on motorists driving along the surrounding streets. Avoidance or adjustment of these design features typically will reduce or even entirely eliminate adverse light and glare impacts.

Specific Plan

Development under the DHSP would create new sources of light and glare in the project area. Buildout under the DHSP would result in greater intensity and density of development over that which exists, resulting in a greater potential for light and glare impacts. Artificial lighting would accompany all new development, including exterior lighting for parking lots, signs, walkways, and interior lighting which could be visible outside. Thus, some areas may experience an increase in nighttime lighting due to future development. Higher profile structures could also cause spillover light to adjacent lots. Glare from reflective surfaces would occur with developments that use mirrors, bright lights, and other reflective surfaces for building façades.

Glare. Glare may be produced by the increased amount of reflective building surfaces of the future commercial and retail structures developed as buildout of the DHSP, which could reflect or concentrate sunlight and result in a ***potentially significant impact***; however, implementation of design features required by Mitigation Measure 3.8-3, including the use of non-reflective textured surfaces on building exteriors, as well as avoidance of the use of reflective glass, would reduce impacts to off-site uses resulting from daytime glare from new development.

Ambient Nighttime Light. Development of projects within the DHSP would result in the redevelopment, intensification, and reuse of existing office or commercial uses, as well as development of vacant parcels. Nighttime lighting would be included in future project development in a variety of forms including: security lighting; street and parking area lighting; interior lighting for commercial, retail stores/restaurants and residential uses; as well as increased vehicle headlights due to the intensified uses in the project area. It should be noted that no high-intensity lighting is currently anticipated within the DHSP area. Due to the urbanized nature of the surrounding area, a significant amount of ambient nighttime light currently exists, reducing the views of the nighttime sky. Thus, the increase in nighttime light that could occur would not significantly affect nighttime views (i.e., ability to see stars), because such views are already limited in city settings. Therefore, impacts to ambient nighttime light would be ***less than significant***.

Spillover Light.

Redevelopment, intensification, and reuse of existing office or commercial uses, as well as development of vacant parcels would introduce new sources of direct light that could spillover to adjacent properties. Examples include security and safety lighting provided in parking areas, service passages, and common areas utilized by employees and visitors during and after commercial operating hours. This potential increase in lighting could potentially affect adjacent uses if new buildings were developed next to existing sensitive uses (i.e., residential uses) that presently do not

experience impacts from existing lighting sources, or if new taller buildings included significant neon lighting or lighted signs. Should these sources spillover to adjacent properties such that they create a nuisance, a significant impact could result. Although it is anticipated that the project review process would resolve concerns for nuisance spillover light by requiring light shields and directed lighting, it is possible that future development could create light pollution disturbances which do not presently exist and depending on the location and design specifications of lighting on future buildings, lighting could present a ***potentially significant impact***. Implementation of Mitigation Measures 3.8-3 addresses potential concerns for spillover lighting:

Transformative Projects

Glare and spillover light may be produced by the increased amount of reflective building surfaces of the future commercial and retail structures developed as buildout of the DHSP, which could reflect or concentrate sunlight and result in a *potentially significant impact*; however, implementation of design features required by Mitigation Measure 3.8-3, including the use of non-reflective textured surfaces on building exteriors, as well as avoidance of the use of reflective glass, would reduce impacts to off-site uses resulting from daytime glare from new development.

Implementation of the Transformative Projects would result in potential light and glare impacts similar to those of other development projects within the DHSP. This impact may occur on the Hawthorne Boulevard side to the T1 Project and thus, is considered a ***potentially significant*** impact.

Mitigation Measures 3.8-3

The following mitigation measures should be implemented to minimize potential impacts resulting from increased lighting and glare, with the exception of the Hawthorne Boulevard frontage, which is the main business corridor and requires visibility for economic development purposes:

- Proposed new structures shall be designed to maximize the use of textured or other non-reflective exterior surfaces and non-reflective glass. Building materials shall be reviewed by the City prior to issuance of building permits for each project.
- All exterior lighting and advertising (including signage) shall be directed onto the specific location intended for illumination (e.g., parking lots, driveways, and walkways) and shielded away from adjacent properties and public rights-of-way to minimize light spillover onto adjacent areas.
- Prior to issuance of a building permit for a specific development project, the applicant shall submit a lighting plan to the City for review and approval. The Plan shall specify the lighting type and placement to ensure that the effects of security and other outdoor lighting are minimized on adjacent uses and do not create spillover effects. The Plan shall specifically incorporate the following design features:
    - All projects shall incorporate project design features to shield light and/or glare from vehicles entering or exiting parking lots and structures that face sensitive uses (e.g., schools, hospitals, senior housing, or other residential properties) by providing barriers so that light from vehicle headlights would not illuminate off-site sensitive uses.

- All projects shall incorporate project design features to provide landscaping, physical barriers, screening, or other buffers to minimize project-generated illumination from entering off-site areas and to prevent glare or interference with vehicular traffic, in accordance with the City's Municipal Code.

Level of Impact After Implementation of Project Mitigation 3.8-3

Implementation of Mitigation Measure 3.8-3 would reduce impacts from daytime glare to a less-than-significant level by eliminating or minimizing new sources of glare by the use of non-reflective glass and non-reflective textured surfaces in future development. Implementation of the mitigation measures would reduce potential lighting impacts to a less-than-significant level to surrounding areas through appropriate site design and configuration. Review and approval of the proposed lighting plan by the City would ensure that spillover lighting would be minimized so as not to create nuisance or disturbance to adjacent uses. The residual impact following implementation of the recommended Mitigation Measures for 3.8-3 will be ***less than significant***.

Impact 3.8-4 Shade and Shadow

A substantial increase in shade/shadows over uses that are sensitive to excessive shade/shadow could result in potentially significant impacts.

Specific Plan

The current low- to mid-rise buildings within the Plan Area create limited shade and shadow patterns that are contained within a close proximity to each low- to mid-rise building. Future development of new multi-story buildings in the project area may create new sources of shading that could impact shadow-sensitive uses in the vicinities of the new development sites. For the purposes of analyzing shade/shadow impacts, a significant impact would occur when shadow-sensitive uses (residential structures, schools, churches, parks, etc.) would be shaded by a project-related structure for more than three hours between the hours of 9:00 A.M. and 3:00 P.M.) Pacific Standard Time (PST) (between late October and early April), or for more than four hours between the hours of 9:00 A.M. and 5:00 P.M. PST (between early April and late October). It should also be noted that, in general, shadows extend in a northwesterly to northeasterly clockwise direction as a day progresses.

Due to the programmatic nature of this EIR, specific project-level design plans (including building heights, positioning, and dimensions) are not available at this time, and a site-specific assessment of shade and shadow impacts of proposed development under the DHSP is not possible. The exception to this is the proposed development of the Transformative Areas (discussed below).

Until specific development plans are submitted and reviewed, it is assumed that new development resulting from the Plan could result in potential shade/shadow impacts that are ***potentially significant***. Implementation of Mitigation Measure 3.8-4 is recommended to minimize potential impacts to shade/shadow.

Transformative Projects

Implementation of the Transformative Projects would be similar to that of other development projects within the DHSP. For several of the Transformative Projects (e.g., T3 and T4), the existing building envelops would remain and substantial changes to the building footprints would be limited. New development within the Transformative Areas would require implementation of Mitigation Measure 3.8-4 to minimize potential impacts to shade/shadow. However, implementation of the T1 (at Hawthorn Mall site) project would result in a substantially different building scale and development envelop than that which currently exists. Also, a new hotel may be added to the T2 site, which could introduce a taller building structure with potential shade/shadow effects at this location. Potential shade/shadow for both the T1 and T2 are discussed below.

New development at the T1 site would include building heights of 45 feet (for the residential component) and 65 feet (for the parking/office component) along the western side of Birch Street. Building heights along Hawthorne Boulevard would generally be 75 feet (for the residential over retail component), with some select architectural elements extending as tall as 85 feet. Other interior portions of the new T1 site construction, such as the retail-flex space and R&D components would generally be limited to 40 feet in height. These building heights would be taller than structures currently occupying the site. However, because of the proposed configuration to limit the taller components to only along the Hawthorne Boulevard and due to the intervening space of Birch Street (which establishes a setback from existing residential uses on the other side of the street), surrounding land uses are not anticipated to be negatively affected by shade/shadow effects for any extended period of time. A Shading Study (dated October 29, 2015 and included in Appendix E of this EIR) illustrates the anticipated shade/shadow effects of new construction at the T1 site for the heights described above. As shown in the study, shadows are anticipated to be cast across residential development east of Birch Street. However, these shadows are anticipated during the latter part of the day and are expected to last no more than two hours, which is under the threshold for significance. Therefore, project development at the T1 site is anticipated to be ***less than significant***.

Although specific development plans are not know for potential development at the T2 site, new construction could include a 300-room hotel having building heights up to 75 feet. Shadows from this development would be of greatest concern for uses located easterly of the site. However, Hawthorne Boulevard would function as a setback buffer, thereby minimizing the effect of shadows that could be cast on residential uses within the T1 site. Nonetheless, it is possible that during the late afternoon hours, shadows from tall structures at the T2 site could affect the westerly face of the T1 site for up to a two hour period. Because this timeframe is under the threshold for significance, project development at the T2 site is anticipated to be ***less than significant***.

Mitigation Measures 3.8-4

The following mitigation measure should be implemented for any structure that would exceed four stories in height to minimize potential impacts to shade/shadow:

- For any proposed structure that would exceed four stories in height, applicants shall submit a site-specific shade/shadow report with appropriate renderings representing the level of shade/shadows associated with the proposed development at the following times: 9:00 A.M., 12:00 P.M., 3:00 P.M. PST (Pacific Standard Time) for the both the winter and summer solstices. An additional rendering for the 5:00 P.M. PST time period shall be prepared for the summer solstice period. The report shall include any feasible design considerations that would reduce the extent of shadows cast by a proposed structure. The analysis and the project design plans shall be forwarded to the Planning and Building Agency for review and approval.

Level of Impact After Implementation of Project Mitigation 3.8-4

Even with inclusion of the above mitigation measure, it is reasonable to conclude that new sources of increased shade would likely result from some new development under the proposed DHSP. In particular, should a high-rise structure be constructed in the Hospitality area, the residences located to the west, north, and east could be impacted by the shadows cast by such a structure in excess of the three hours during the winter solstice and/or the four hours during the summer solstice as described above. However, adherence with the intent of the mitigation and incorporation of feasible design modifications could effectively reduce shade/shadow impacts to a level of less than significant. Therefore, the residual impact following implementation of the recommended Mitigation Measures for 3.8-4 will be ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

3.9 Cultural Resources

This section of the EIR analyzes the potential impacts on the cultural and historic resources that could result from implementation of the proposed DHSP and four Transformative Projects. For the purposes of this EIR, cultural resource refers to historic/architectural, archaeological or paleontological resources. Cultural resources can include buildings and other structures, monuments, places, human and animal artifacts. Historical/architectural resources are defined as those monuments, buildings and various types of structures, used in the past and are famous/notable in history. Archaeological resources are defined as the material remains (i.e., fossils or possessions) of an area's prehistorical (e.g., Native American) or historical activity. Archaeological resources are recognized as non-renewable resources significant to our culture and are afforded protection by federal and state laws that include CEQA.

Environmental Setting

Historical/Architectural

The city of Hawthorne, which covers a six square mile area in the southwestern portion of Los Angeles County, was incorporated in 1922. During the late 1800s, investor groups organized purchase of land for towns in the South Bay region. One of these was the Hawthorne Land Company, which originally purchased an 80-acre town site and promoted "Hawthorne" as ideal for homes and investments. During that time, the town was situated on the Redondo Electric Car Line, offering relatively easy access to downtown Los Angeles and close proximity to other areas of rapid growth around the harbor.

When the city incorporated in 1922, like much of Los Angeles County, it experienced a post-World War II building boom. This growth was fueled by the Northrop Corporation and its associated subcontracting companies, which by the late 1940s employed more than 20,000 people. Hawthorne was at the heart of the aviation and aerospace industry established during the 1930s in southern California. In 1939, Northrop Aircraft Inc. (which later became Northrop Grumman Corporation) was founded and headquartered in Hawthorne. Many other subcontracting firms followed suit with the expansion of the aviation/aerospace industry in this area. Other industrial and commercial development became established over time. Hawthorne continues to attract aerospace industry with more recent and notable additions including SpaceX (Space Exploration Technologies Corporation) in 2002 and Tesla Motors. The local real estate market in Hawthorne flourished, primarily driven by blue-collar manufacturing employment in Northrop and other Southern California aviation and aerospace employers nearby.

Hawthorne's history tells a story of how the community developed from its beginning as a quaint beach town into its present day middle-class suburb, which includes iconic restaurants, shops and destinations that uniquely define the Downtown area. Many features within the Hawthorne community are traceable back to the post-war period and contribute to what is characterized as the community's nostalgic charm. Some structures along the Hawthorne Boulevard corridor, primarily

between Rosecrans Avenue and El Segundo Boulevard, appear to date back to the streetcar era, having narrow storefronts that directly front onto the street and limited on-site parking.

Notable structures of historical or architectural significance within the Downtown include:

Hawthorne Mall. The Hawthorne Mall, dating from a redevelopment project initiated in the 1970s, is located on 40 acres of property along the east side of Hawthorne Boulevard between 120th Street and El Segundo Boulevard. When Hawthorne Mall opened in 1977, it included an indoor mall and free standing stores at the property's south end. The mall largely catered to the middle-class residents living in and around Hawthorne and featured cheaper stores than other nearby malls such as South Bay Galleria and Manhattan Village. Despite initial popularity, the mall went into decline in the 1990s due in part to the economic decline of the area after the cutbacks in aerospace jobs and to competition from other shopping centers. The indoor mall portion of the facility closed down around 1999. The southern end of the property has undergone several facelifts and supports some stores and restaurants. Despite periodic plans to revamp, revitalize or re-purpose the Hawthorne Mall, it has been essentially been abandoned since 1999. It is periodically used for training events and filming. Relatively recent movies that have filmed at the Hawthorne Mall include *Minority Report* (2002), *The Fast and the Furious: Tokyo Drift* (2006), *The Green Hornet* (2006) and *Gone Girl* (2014).

Within the last decade, the Hawthorne Mall has gained some notoriety due in part to its identification as a "dead mall," with its long-term vacant status, "ghostbox" vibe, and relatively in-tact interior infrastructure.

Hawthorne Mall

The Hawthorne Mall, also referred to as the Hawthorne Plaza Shopping Center, is notable because of its architecture and the style of American consumer-culture the building represented when it was established. As an indoor mall, touting three anchor department stores and approximately 130 smaller retailers contained within 801,000 square feet, Hawthorne Mall was designed in the grand style of the indoor mall experience defined by Victor Gruen during the late 1940s and 1950s. Hawthorne Mall was designed by Los Angeles based architect Charles Kober. Kober was notable in his own right for designing large-scale commercial projects, including several other malls throughout the United States, as well as the Los Angeles Metro subway station at Wilshire and Vermont. Kober was also well known for his experience as an Olympic yachtsman and he assisted with siting of the sailing venues for the 1984 Olympics held in Los Angeles.

During its construction, a time capsule that included historic photographs and other materials was buried on the site. It was intended that the time capsule be opened during Hawthorne's 100th anniversary celebration in 2022.

St. Joseph's Catholic Church. Currently located at 11901 Acacia Avenue, St. Joseph's has a history in Hawthorne dating back to 1913 when the Parish was initially established. A structure built by parishioners in 1916 was the first church building built in the city of Hawthorne. The original church building was later moved (around 1928) to the corner of 119th Street and Birch and a second church building constructed in the area. Those early structures are the foundation of what has grown to become, and referred to as, the St. Joseph's Church complex. The church complex now includes a collection of buildings that serve religious, school, community and convent uses.

St. Joseph's Catholic Church

Chips Restaurant. Located at 11908 Hawthorne Boulevard (nearby the St. Joseph's Catholic Church) is a classic 1950s style diner, in operation since 1955. Not only a long-time fixture within the city of Hawthorne, the restaurant's interior décor incorporates memorabilia, photos of its famous patrons and Hawthorne citizens, and items from the 1950 time period. Chips, designed by architect Harry Harrison, is notable for its Googie architecture and classic signage. Googie architecture is a form of modern and futuristic-style design, originating in the late 1940s, that was influenced by the car culture and "space age" concepts.

Chips Restaurant

Celebrity Icons. Hawthorne also enjoys recognition as the birthplace of Brian, Dennis, and Carl Wilson, founders and members of the musical group the "Beach Boys." Their childhood home was demolished in the late 1980's due to the Century (I-105) Freeway construction project. However, in May 2005, the site was designated a California State Historic Landmark (No. 1041) and a plaque established to commemorate the home-site. Other celebrity associations to the City include athlete Jim Thorpe, movie star cowboy Roy Rodgers, and Marilyn Monroe. Hawthorne is also notable for its fanciful annual Kiwanis Parade.

Iconic Signage. In addition to the notable structures, events and celebrity associations, the downtown area includes a collection of unique, creative and nostalgic signage, some of which are examples associated with the Modern, Art Deco and Googie architectural styles. As a collection, these signs may raise to the level of potential historic sign district. Examples of contributing signs include the Chips Restaurant sign.

Archaeological/Paleontological

There are no known archaeological or paleontological resources within the proposed DHSP area.

Regulatory Framework

The proposed DHSP area is subject to several state laws regarding archaeological and historical resources as well as regulations and building codes regarding built environment historical resources. The appropriate treatment of historic properties is guided by federal guidelines promulgated by the Secretary of the Interior.

Federal Regulation

The **National Historic Preservation Act** (**NHPA**) (Public Law 89-665; 16 U.S.C. 470 *et seq.*) is legislation intended to preserve historical and archaeological sites in the United States. The NHPA created the National Register of Historic Places and the list of National Historic Landmarks. When applicable, Federal "projects" would be reviewed in accordance to the Section 106 protocol under NHPA. The NHPA also created the mandate for State Historic Preservation Offices (SHPOs) and requires the selection and appointment of a SHPO Officer in each state. Each SHPO is tasked, among other duties, with maintaining an inventory of historic properties, including nationally designated or eligible properties. The California SHPO regulatory framework is discussed below.

State Regulation

California Register of Historic Resources: In California, the state legislature established additional duties for SHPO. These include maintenance of the California Register of Historical Resources (CRHR). Established by California Public Resources Code (PRC) Section 5024.1(a) in 1992, the CRHR serves as "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent feasible, from substantial adverse change." According to PRC Section 5024.1(c), the CRHR criteria broadly mirror those of the National Register of Historic Places (NRHP).

The CRHR criteria establishes that found an historical resource must be significant at the local, state, or national level under one or more of the following four criteria:

1 It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States; or

2. It is associated with the live of persons important to local, California, or national history; or

3. It embodies the distinctive characteristics of a type, period, region, or method or construction or represents the work of a master or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The general rule is that a resource must be 50 years old to qualify for the CRHR.

California Environmental Quality Act:

Historic/Architectural Resources. CEQA Section 21060.5 defines the environment to include "objects of historic significance." For the purposes of CEQA, "historical resources" are defined as:

1. A resource listed in or determined eligible by the State Historical Resources Commission for listing in the CRHR.
2. A resource included in a local register of historical resources or identified as significant in a historical resource survey shall be presumed historically significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the CRHR.

Archaeological/Paleontological Resources. In the state of California, fossil remains are considered limited, nonrenewable, and sensitive scientific resources. These resources are afforded protection under CEQA. Paleontological resources are provided protection as historical resources, as discussed in State CEQA Guidelines Section 15064.5(a)(3). The Guidelines define historical resources broadly to include any object, site, area, or place that a lead agency determines to be historically significant.

State Health and Safety Code (Section 7050.5) and California Public Resources Code (Section 5097.9): Archaeological sites containing human remains are treated in accordance with the provisions of State Health and Safety Code (HSC) Section 7050.5 and California PRC Section 5097.9. Under these provisions, if human remains are discovered during any project activity, the county coroner must be notified immediately and disturbance of the construction area is temporarily halted until a determination is made as to origin and disposition of the remains. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the Native American Heritage Commission (NAHC) within 24 hours. NAHC, pursuant to Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased person so they can inspect the burial site and make recommendations for treatment or disposal.

California State Historical Building Code: The design and construction of older buildings sometimes does not conform to current building and health/life safety codes. In some cases, there is a conflict between the appropriate treatment of a significant feature of a historical resource and a retrofit of the resource that meets the letter of current code. To resolve conflicts of this nature, the California State Historical Building Code (SHBC) provides "alternative building regulations for permitting repairs, alterations, and additions necessary for the preservation, rehabilitation, relocation, related construction, change of use, or continued use of a 'qualified historical building or structure'". The SHBC provides an alternative for situations where conformance with local building codes would pose negative impacts on historical resources.

Local Regulation

Hawthorne is an independent city within Los Angeles County. Although the City does not have a local register and/or a program by which to designate local historical resources, it does unofficially recognize significant historic resources through pending policy (such as the proposed DHSP).

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to cultural and historic resources if it would result in:

- Modifications to an historic structure such that its historic integrity were compromised or if the original elements defining the form, style, use and function of the structure were altered, removed or allowed to decay;
- Removal or changes to elements which contribute to an historic structure/resource's setting or context or additions in the near vicinity contribute to significant loss of view or function; and,
- Surface modifications which disturb, scatter, relocate or otherwise reduce the integrity and scientific research potential of important cultural resources, including any process of demolition grading, construction, landscaping, installation of utilities, or other modification of the surface that may impair the condition and associations of structures or cultural material.

Impacts and Mitigation Measures

Impact 3.9-1 – Historic/Architectural Resources

Specific Plan

As described in *Chapter 2, Project Description*, implementation of the proposed DHSP and Transformative Projects is expected to result in the demolition and redevelopment of targeted areas within the proposed Plan area. Over time, the project is anticipated to result in reuse of the existing developed area(s) and it is possible that implementation of the proposed DHSP could include demolition of structures that were built before 1970. The proposed DHSP does not recommend

changes to sites that contain designated historic monuments or any known or listed historical resources. Further, the majority of residential and commercial structures located within the DHSP area, including those built before 1970, are not anticipated to incorporate architectural elements or be associated with significant historic events that would result in eligibility as potentially significant historic features.

However, given the City's rich history with the aeronautics industry and its roots in classic California urbania, several buildings or built environment facets with the proposed DHSP area stand out as potentially significant historic resources. Notable structures include the St. Joseph's Catholic Church and surrounding plaza area (located adjacent to Transformative Area T4) and the Hawthorne Mall (located in Transformative Area T1). The potential significance and physical environmental impacts for these two potential resource areas are discussed separately below.

Further, because the DHSP would be implemented over a 20-year time horizon, it is recognized that the historic status of building elements could change over time. Built facilities that do not meet the criteria for historic resource eligibility may later be determined to have some potential for significance. Completion of site-specific evaluations to consider the potential for historic significance or resource eligibility, at the time project-specific applications are received is advisable.

In addition to the specific structures associated with the T1 and T4 Transformative Projects (discussed below), the downtown area is remarkable because of the collection of unique, creative and nostalgic signage, some of which include examples associated with the Modern, Art Deco and Googie architectural styles. Many signs have remained in place even as businesses have long since shut down and area has sunk into economic decline. As revitalization is achieved, new businesses seeking updated building facades and signage may displace older, potentially historic or iconic signage. And even though individual (older) signs may not rise to the level of significance, it appears that the collection of historic signage within the proposed DHSP area may be eligible as an historic signage district. In any case, the proposed DHSP acknowledges the role of older signage and its contribution toward the City's character and celebration of local history and seeks to retain these qualities..

Although the proposed DHSP would not establish any specific historic preservation mechanisms for the DHSP area, the Plan does establish objectives and strategies to recognize and promote the City's history and heritage. The DHSP includes the following goals and strategies related to historic and architectural attributes:

Goal: To celebrate local history, provide educational opportunities and enhance historically-significant landmarks throughout Downtown.

Strategies:

A2.A Promote programs and activities that educate the community about the rich history of Downtown Hawthorne.

A2.B Continue to protect historic signage based on both the age and significance of existing landmarks.

A2.C Consider regulatory or financial incentives for the preservation and maintenance of historically-significant signage.

A2.D Look for opportunities for existing or new community events in Downtown Hawthorne, such as the annual festival at St. Joseph's Catholic Church, to showcase the history of the area as a way to build local pride and encourage tourism.

Implementation of the DHSP has potential to result in positive impacts to historic and architectural resources. However, given that many buildings are currently over 50 years and the rich cultural nature of the City, future impacts may need to be confirmed on a case-by-case basis as specific development projects are proposed to either confirm or dismiss concern for significant effects to historic or architectural resources. Nonetheless, implementation of goals and strategies proposed in the DHSP is also recognized to yield a beneficial effect by encouraging the preservation of historic signage and cultural landmarks throughout the Downtown area. Therefore, impacts on historic and architectural resources are considered ***less than significant***.

Transformative Projects

Buildout of the four DHSP Transformative Projects is expected to result in the demolition and redevelopment of targeted areas within the proposed DHSP area. No known historic or architecturally significant resources are specifically noted in association with Transformative Areas T2 or T3. Hence, potential historic/architectural resources impacts within these two transformative areas would be similar to those already discussed above for the Specific Plan area in general. However, given what is already known of these areas (i.e., age and type of existing structures and local signage), the site-specific impacts associated with historic/architectural resources at sites T2 and T3 are considered to be ***less than significant***.

Hawthorne Mall (T1): The T1 site, which includes a majority of the original Hawthorne Plaza Shopping Center property, is anticipated to be demolished and developed into a mixed-use of residential, retail, office and R&D-type uses.

While the Hawthorne Mall has been a prominent fixture of the City, it does not represent an era or architectural style of significant historic value. Development at T1 is not anticipated to result in adverse impacts to any historic or architectural resources; therefore, the impact of T1 would be ***less than significant.***

St. Joseph's Plaza (T4): The T4 site, located at the northeast corner of Hawthorne Boulevard and 119th Street, is currently occupied by a gas station, which is situated adjacent to two key city and neighborhood landmarks: the St. Joseph's Catholic Church (to the east) and Chips Restaurant (to the south). While the proposed Plan ultimately envisions demolition of the gas station, the adjacent church and restaurant buildings would not be physically affected with implementation of T4. In fact, the DHSP anticipates that a new public plaza at the T4 site could enhance the open space needs in the area, while also serving to support the church and its accompanying school's public space demands, and would help emphasis Chips' role as a major community landmark. The Plan envisions that a new plaza at T4 could host community events, farmer's markets, formal private events and

other gatherings, all of which complement the community emphasis of the adjacent church and restaurant and would not detrimentally diminish the historical significance of either of these facilities. The DHSP provides that the design, pedestrian orientation, uses and development features integrated into the proposed plaza at T4 should be compatible with surrounding uses, especially the St. Joseph's Catholic Church and Chips Restaurant. Development at T4 is not anticipated to result in adverse impacts to any historic or architectural resources; therefore, the impact of T4 would be ***less than significant.***

Mitigation Measures 3.9-1

Implementation of the proposed DHSP, including development of the Transformative Projects, are anticipated to result in positive impacts to historic or architectural resources. However, over time, additional historic or architectural resources may be identified. Therefore the mitigation measures provided below are recommended. In addition to the programs already included within the proposed DHSP, which address the St. Joseph's Plaza area and historic signs throughout the Downtown, the following measures shall apply:

A. Any building that may be designated as an Historic Cultural Monument, a State Landmark, or on the National Register of Historic Places, or on any other list of historic or architectural recognition, or any building that is eligible for listing on such, shall require a determination from the Planning Department and/or Building and Safety Department in order to allow demolition, alteration, or removal of that building prior to the demolition, alteration or removal of said building.

B. Any building, structure or signage that is at least 50 years old and based on a preliminary assessment (as determined by the City of Hawthorne Planning Director) is found to have the potential for unique historic features, including original elements defining the form, style, use and function of the structure of uncompromised integrity, shall be required to have prepared a Phase 1 Historic Assessment in order to assess the potential effect to historic resources prior to the demolition, alteration or removal of said building structure or signage.

C. It is recommended that the City of Hawthorne initiate preparation of a survey of signage and structures throughout the Downtown area to determine potential eligibility of older and classic signs as historic resources or components of an historic signage district and/or to document this aspect of history exemplified through signage.

Level of Impact After Implementation of Project Mitigation 3.9-1

The residual impact following implementation of the recommended Mitigation Measures for 3.8-1 would be ***less than significant***.

Impact 3.9-2 – Archaeological/Paleontological Resources

Specific Plan

As described in Chapter 2, Project Description, implementation of the proposed DHSP and Transformative Projects is expected to result in the demolition and redevelopment (including grading, excavation and construction) of targeted areas within the proposed DHSP area.

Development resulting from the implementation of the proposed Plan may cause the disturbance, of archaeological or paleontological resources, potentially resulting in the disruption of prehistoric or historic archaeological sites or exposure of historic artifacts. However, the soils within the city area have been extensively disturbed by urban development and the corridor area is entirely built and urbanized. The project will result in reuse or redevelopment of fully built and developed urban areas that do not contain any known archaeological or paleontological resources. Given there are no known archaeological or paleontological resources within the proposed Plan area and that the project area has previously been graded and disturbed, it is not anticipated that any unknown archaeological resources or paleontological resources would be uncovered. Therefore, impacts to archaeological and paleontological resources are considered less than significant.

Construction activities, particularly grading, soil excavation and compaction, could disturb surficial layers that may contain (unknown) human remains. The potential to impact unknown human remains exists when excavation is involved. State law establishes notification and recovery procedures if human remains are discovered during the development process. Therefore, impacts to human remains are anticipated to be ***less than significant***.

In the unlikely event that such archaeological, paleontological or historic resources, are uncovered, compliance with State regulations, including CEQA Guidelines (Section 15064.5 and Section 15064.5[e]), would ensure that potential archaeological/paleontological resources impacts would be ***less than significant***. No remains are known to be present on site. In the event that unknown remains are discovered on the project site, compliance with the CHSC Section 7050.5 and the California PRC Section 5097.98 would be followed.

Transformative Projects

As discussed above for the DHSP area, the potential for archaeological, paleontological or human remains with the Plan is low and impacts to these resources would be less than significant. The potential for impact would be unchanged at any of the Transformative Project sites, thus the impacts would be considered ***less than significant***.

Mitigation Measures 3.9-2

The proposed DHSP is not anticipated to result in any significant plan or project-specific impacts to archaeological, paleontological or human remains. In the unlikely event that any such resources are discovered, compliance with existing rules, regulations and policies would minimize the potential for and reduce those impacts to acceptable levels. Although not required, the following measures are

nonetheless recommended to ensure that any potential impacts to unknown resources would remain less than significant:

In the event any cultural resources or remains are encountered during the course of land modification and construction activities, the city should require the developer to halt construction and immediately consult a qualified archaeologist and/or paleontologist with expertise in the area in order to assess the nature, extent and significance of any cultural materials that are encountered and to recommend appropriate mitigation measures. Said archaeologist will have the authority to terminate grading operations and mark, collect and evaluate any archaeological materials discovered during construction. Said archaeologist shall be provided a reasonable amount of time to prepare and implement additional mitigation measures in cooperation with the City of Hawthorne Planning Department.

Level of Impact After Implementation of Project Mitigation 3.9-2

The residual impact following implementation of the recommended Mitigation Measures for 3.9-2 would be ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

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3.10 Public Services and Recreation

This section of the EIR analyzes the potential impacts on the existing public services and recreation that could result from implementation of the proposed DHSP and the four Transformative Projects. For the purposes of this EIR, public services refers to (A) fire protection, (B) police protection, (C) parks and recreation, (D) schools, and (E) libraries.

A. Fire Protection

Environmental Setting

The City of Hawthorne maintains a contractual agreement with the Los Angeles County Fire Department (LACoFD) to provide fire protection and emergency vehicle services for the City. Six LACoFD stations serve Hawthorne, three of which are within city limits. These stations include:

- FS No. 160, located at 5323 Rosecrans Avenue
- FS No. 161, located at 4475 W. El Segundo Boulevard
- FS No. 162, located at 12151 S. Crenshaw Boulevard

Fire Station No. 161 is located within the DHSP area as a part of the Civic Center Transformative Project site. This station serves as the LACoFD Battalion 18 headquarters[1]. Several additional stations in adjacent jurisdictions also serve Hawthorne as needed. **Table 3.10-1** lists and **Figure 3.10-1** illustrates the location the fire stations serving the City.

Police, fire, and paramedic dispatch services for emergency and non-emergency incidents are supplied to Hawthorne residents and businesses by the South Bay Regional Public Communications Authority, also referred to as the Regional Communications Center (RCC) – a Joint Powers Authority currently owned by the cities of Hawthorne, Gardena, and Manhattan Beach[2]. The RCC also provides communications services to the cities of El Segundo and Hermosa Beach. The adequacy of fire protection service is measured through response times, which refers to the time it takes from receipt of a call to arrival at an emergency site. The LACoFD uses national guidelines of a 5-minute response time for the first-arriving unit for fire and emergency medical responses. Hence, response times for any location in the City are under 5 minutes, and are typically 3-4 minutes. For advanced life support (paramedic) services, the response time standard is 8 minutes[3].

[1] *http://www.fire.lacounty.gov/fire-station-listings/*
[2] *http://www.rcc911.org/*
[3] *Correspondence with LACoFD Planning Division, April 2015.*

Table 3.10-1: Hawthorne LACoFD Fire Stations

Location	Service and Equipment	Average Response Time (min.) 2014
Fire Station No. 160 5323 Rosecrans Ave., Hawthorne	3-person engine company	4:26
Fire Station No. 161 4475 W. El Segundo Blvd., Hawthorne	3-person engine company 2-person paramedic squad	4:29
Fire Station No. 162 12151 S. Crenshaw Blvd., Hawthorne	4-person quint	4:35
Fire Station No. 170 10701 S. Crenshaw Blvd., Inglewood	4-person truck 2-person engine	4:05
Fire Station No. 21 4312 W. 147th St., Lawndale	3-person engine 2-person paramedic squad	4:45
Fire Station No. 18 4518 W. Lennox Blvd., Inglewood	4-person full paramedic and engine company	4:43

Source: http://www.fire.lacounty.gov/fire-station-listings/

Regulatory Framework

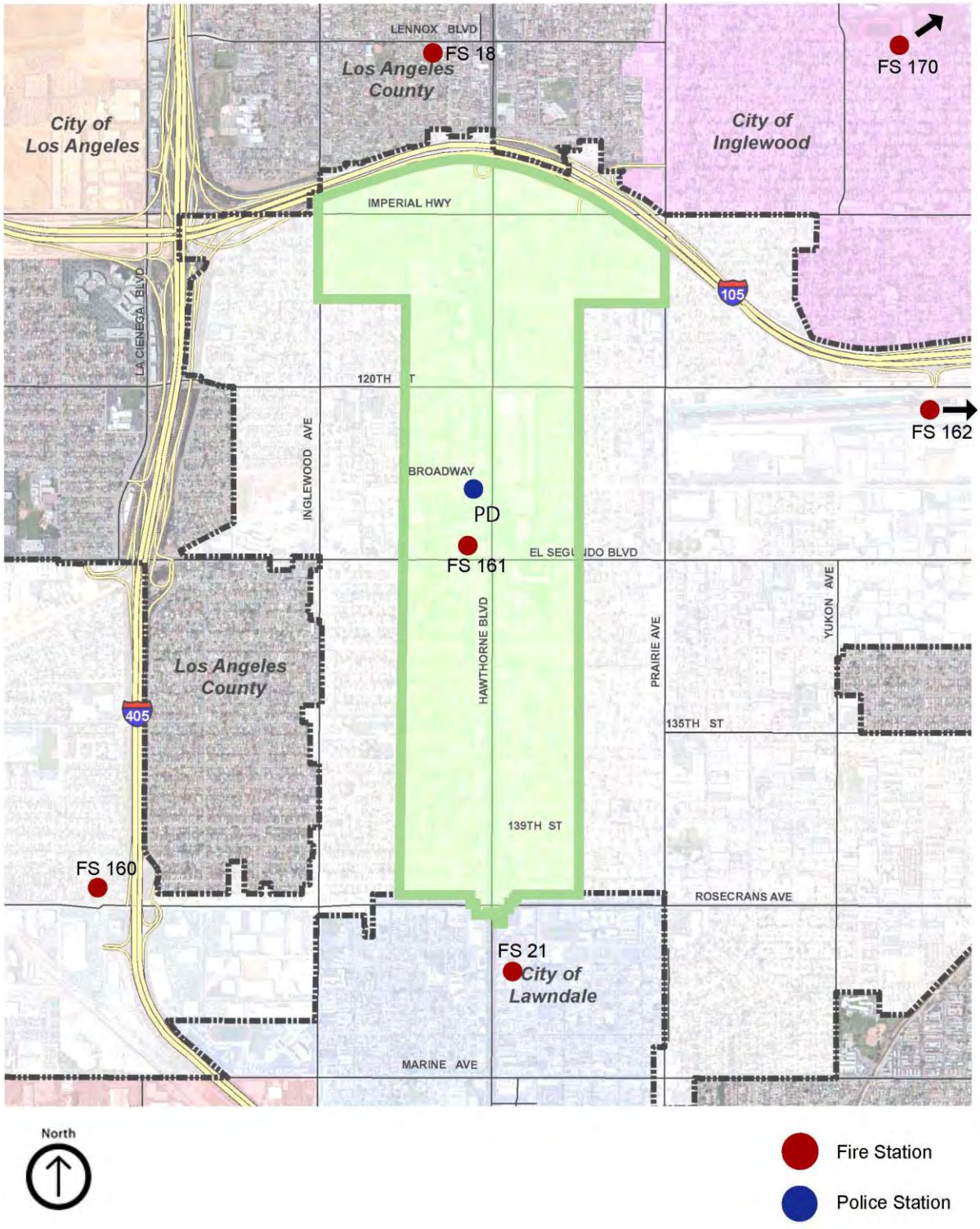
Federal Regulations

There are no federal regulations pertaining to fire protection and emergency response applicable to the DHSP and Transformative Projects.

State Regulations

California Building Code. The California Building Code (CBC) (Part 2, Title 24 of the California Code of Regulations) sets forth minimum standards for building design as it relates to fire safety, structural safety, and access compliance[4]. Though particular regulations can vary by jurisdiction, standard fire safety requirements include installation of fire sprinklers and use of fire resistant building materials and fire doors.

[4] *http://www.dgs.ca.gov/dsa/Programs/progCodes/title24.aspx#part2*



Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.10-1 Police and Fire Stations**

California Fire Code. The California Fire Code (CFC) (Part 9, Title 24 of the California Code of Regulations) provides regulations consistent with national standards for protections against hazards resulting from fire and explosion, safety hazards in buildings and on premises, handling of hazardous materials, as well as some language on provisions for emergency response personnel[5]. It is updated every three years by the California Building Standards Commission.

Local Regulations

Los Angeles County Fire Code

The 2014 Edition of the of Los Angeles County Fire Code incorporates the new 2013 Edition of the California Fire Code. To protect residents and property, any new development project within the City is required to comply with applicable fire and life safety standards and code requirements established by the Los Angeles County Fire Department. These safety standards and requirements include fire hydrant flow, hydrants spacing, adequate fire lane turning radius, access and design, and water supply connections, which must be adequately sized to the satisfaction of the Fire Department.

General Plan – Safety Element

Section IV in the Safety Element of the City's General Plan contains the following goals and policies as it relates to fire protection and emergency medical services.

Goal 1: Minimize the hazards to public health, safety, and welfare and prevent the loss of life, bodily injury, and property damage resulting from natural and man-made occurrences.

> **Policy 1.3**: The level of police and fire services should not be adversely affected by any urban development.

As part of the Hawthorne Municipal Code, a fire sprinkler system ordinance was established for buildings of at least 5,000 square feet. In areas where fire-flow is weak, the City recommends sprinklers to decrease the potential for fire hazards and damage.

Municipal Code

The City's Municipal Code has adopted the Los Angeles County Fire Code with a few amendment related to aircraft refueler units, storage and handling of lubricating oils, dispensing of fuel into fuel tank, storage and transport of LP-Gas, and safe and sane fireworks (Title 8 Health and Safety, Chapter 8.32 Fire Prevention).

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to Fire Services if it would result in the provision of, or need for, new or physically altered Fire Department facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

[5] *http://www.dgs.ca.gov/dsa/Programs/progCodes/title24.aspx#part9*

Impacts and Mitigation Measures

Impact 3.10A Fire Protection

Specific Plan

As described in Chapter 2, Project Description, implementation of the proposed DHSP and Transformative Projects is expected to result in a net increase of 317 residential dwelling units and a net increase of approximately 2.17 million square feet of non-residential uses throughout the DHSP's buildout by 2035. New residential and non-residential development resulting from the implementation of the DHSP could increase fire and emergency incidents, and thus increase the demand for fire protection and emergency medical services.

The City of Hawthorne contracts with the LACoFD. The Fire Department maintains a target response time of less than 5 minutes per national guidelines. As shown in **Table 3.10-1**, the average response time for all fire stations serving the City was kept under five minutes. The LACoFD uses a "district" model of patrolling using the City's Police Department four command area districts to divide the city into organized geographies for emergency response (see Police Protection section). Implementation of the proposed DHSP would increase the number and frequency of calls for service. Fire Station No. 161, located at 4475 W. El Segundo Boulevard, would likely absorb the majority of the increased response calls because of its central location within the DHSP area. This station is equipped with a three-person engine company and two-person paramedic squad. The average response time in 2014 from FS No. 161 was 4 minutes 29 seconds.

Although the LACoFD does not impose development impact fees, new construction and rehabilitation activities built in accordance with current fire codes (i.e. Los Angeles County Fire Code) will ensure that adequate fire protection is maintained. California fire code provisions include the use of fire resistive construction materials, as well as the required installation of automatic fire sprinkler systems. The LACoFD reviews development projects for compliance to these codes. In addition, the City has a fire sprinkler ordinance for buildings of at least 5,000 square feet, as well as for areas where fire-flow is weak. As development projects are proposed within the DHSP area, they would be required to meet fire flow standards, and all applicable local and regional fire codes and regulations. In addition, City fire protection and prevention policies and ordinances contained in the General Plan and Municipal Code, respectively, will ensure the continued maintenance of a high level of fire protection services. Therefore, potential fire impacts would be ***less than significant***.

Transformative Projects

Buildout of the Transformative Projects will collectively generate a net increase of 655 residential units and a net increase of 822,700 square feet of non-residential building space (retail and office commercial uses and public facilities) by 2020. As discussed above, the LACoFD does not impose any development impact fees in Hawthorne; however, any new development will be reviewed in accordance with current fire codes and City policies to ensure sites are served with adequate fire flows and that automatic fire sprinkler systems are installed, fire protective building materials are used, and that fire safety is incorporated in the building design. In addition, each Transformative

Project will be in close proximity to FS No. 161 (Battalion Headquarters), which will provide fire protection service within the 5-minute response time standard. FS No. 161 is located within the boundaries of the Civic Center (T2) site. It is also approximately one-quarter to one-half mile from the Hawthorne Mall (T1) site, two-thirds of a mile from the St. Joseph's Plaza (T4) site and almost one mile from the South Bay Ford (T3) site. FS No. 21 in the City of Lawndale is located approximately one mile south of the South Bay Ford site. Therefore, potential impacts on fire protection and emergency response will be ***less than significant***.

Mitigation Measures 3.10A

The proposed DHSP would not result in any significant impact on fire protection services, and therefore no mitigation measures are required.

Level of Impact After Implementation of Project Mitigation 3.10A

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

B. Police Protection

Environmental Setting

The Hawthorne Police Department, located within the DHSP area at 12501 Hawthorne Boulevard, provides police protection and crime prevention services to the City. The Police Department is staffed with approximately 100 police officers and 50 support personnel. Equipment available in the department includes a helicopter, electric motorcycles, an armored rescue vehicle, a tactical medicine program, and a service dog, "Scottie." The Police Department also offers a live chat for the public through their website[6] — the only Police Department in the South Bay to do so. The Department's Community Affairs Unit (CAU) serves as a resource for City residents for non-emergency safety and well-being concerns, and has been nationally recognized as a model for community policing strategies.

Hawthorne is divided into four overall Area Commands overseen by a respective Patrol Supervisor. The DHSP area transverses each of the four districts, which are used to help address geographically specific concerns. This includes meeting with and aiding in the creation of new business and neighborhood groups, and the allocation of resources to address crime and quality-of-life issues. The geographic breakdown of the Districts is as follows:

- District One: North of El Segundo Blvd, West of Hawthorne Blvd
- District Two: North of El Segundo Blvd, East of Hawthorne Blvd
- District Three: South of El Segundo Blvd, East of Hawthorne Blvd
- District Four: South of El Segundo Blvd, West of Hawthorne Blvd

Police dispatching service for the City is handled by the South Bay Regional Public Communications Authority, also referred as the Regional Communications Center (RCC). The RCC is a private joint powers authority owned by the Cities of Hawthorne, Gardena, and Manhattan Beach that functions independently of the Hawthorne Police Department. The entity processes approximately 250,000 police and fire incidents annually in the South Bay and currently staffs 66 full time personnel. Police officers and firefighters from member cities form a Police and Fire Task Force to oversee level of service analysis for police and fire protection for those member cities.

When deemed appropriate by the City, the Hawthorne Police Department will review proposed projects to assess whether or not an additional fee should be levied for the purpose of funding new police personnel resulting from the development. The Police Department also reviews projects to ensure adequacy of safety-enhancing design elements, including lighting and landscaping plans and traffic ingress/egress for police vehicles.

[6] http://hawthornepolice.com/contact-us/

Crime

Table 3.10-2 presents Part 1 crime data in the City at intervals between 2000 and 2014, as available through the Federal Bureau of Investigation and the City's own crime reporting for 2014. Overall, Part 1 crime (including homicide, rape, larceny theft, automobile theft, burglary, robbery, aggravated assault, and arson) in the City has declined over the last 15 years. As presented in **Table 3.10-2**, in 2000, there were 1,272 cases of violent crime reported. Violent crime represents homicide, rape, robbery, and aggravated assault. This figure dropped to 623 violent crimes reported in 2006. The lowest number of violent crime reported in one year occurred 2004 when there were 435 reported cases. In 2014, the Hawthorne Police Department logged 659 cases of violent crime.

Table 3.10-2: Hawthorne "Part 1" Crimes, 2000-2014

Category	2000	2003	2006	2009	2014
Violent Crime	1,272	694	623	700	659
Property Crime	1,628	1,677	1,470	1,437	1,003
Larceny-Theft	1,272	1,034	961	1,062	1,592
Arson	17	9	14	12	9

Sources: http://ag.ca.gov/cjsc/jurisdictionaltrends.php and Hawthorne Police Department.

Regulatory Framework

There are no federal or state regulations pertaining to police protection that apply to the proposed DHSP.

Local

Section IV in the Safety Element of the City's General Plan contains the following goals and policies as it relates to police protection.

Goal 1: Minimize the hazards to public health, safety, and welfare and prevent the loss of life, bodily injury, and property damage resulting from natural and man-made occurrences.

> **Policy 1.3**: The level of police and fire services should not be adversely affected by any urban development.

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to police protection if it would: result in the provision of, or need for, new or physically altered police department facilities, in order to maintain performance objectives, the construction of which would cause significant environmental impacts.

Impacts and Mitigation Measures

Impact 3.10B Police Protection

Specific Plan

As described above, buildout of the DHSP would increase residential, retail/commercial, and office development in the City which would create an increase in demand for police protection services. The DHSP is expected to result in a net increase of 317 residential dwelling units and an increase of approximately 2.17 million square feet of non-residential uses by the year 2035. While the proposed DHSP would increase the number of persons and activity within DHSP boundaries, the Plan area is already highly developed; new development resulting from the Plan will occur primarily through infill and reuse of existing urban development. Therefore, it is expected that the DHSP would not result in a meaningful increase in the amount of crime in the area.

The Hawthorne Police Department, when necessary, reviews individual projects to determine whether or not new police personnel would be needed as a direct impact of the development. If deemed appropriate, additional impact fees may be imposed on the developer to help fund the new personnel. The Police Department also reviews projects to check for safety-enhancing design elements; for instance, lighting and landscaping plans and traffic ingress/egress for police vehicles.

The Hawthorne Police Department headquarters is located within the DHSP area boundaries, and as such, can respond immediately to a police or emergency call. Its proximity to all areas within the DHSP area and the implementation of design and public safety policies for DHSP-related development would reduce impacts to ***less than significant*** levels.

Transformative Projects

Analysis of police protection for the Transformative Projects is similar to that of fire protection. As reviewed above, buildout of the DHSP Transformative Projects will generate a net increase of 655 residential units and a increase of 822,700 square feet of non-residential building space by the year 2020. Each project will be located in close proximity to the Hawthorne Police Department headquarters. The Police Department is located adjacent to the Civic Center (T2) site and across Hawthorne Boulevard from the Hawthorne Mall (T1) site. It is also approximately one-half mile south of the St. Joseph's Plaza (T4) site and one mile north of the South Bay Ford (T3) site.

The greatest impact on police services will be from the development of the Hawthorne Mall Transformative Project. Since it is currently vacant, the projected retail development of the Mall will increase employment and foot and vehicle traffic at the T1 site and its vicinity. However, the City is prepared to assess new development for the need for new police personnel, as well as site-specific elements that will help ensure that environmental design promotes safety and awareness in the area. No project will be approved without consideration of direct impact on police protection. The impact of each Transformative Project is considered ***less than significant***.

Mitigation Measures 3.10B

The proposed DHSP would not result in any significant plan or project-specific or cumulative impacts to police protection, and therefore no mitigation measures are required other than continued adherence to local standards for police and law enforcement services. The Hawthorne Police Department would still need to evaluate impacts on police protection performance as it relates to future development that occurs for the duration of DHSP buildout.

Level of Impact After Implementation of Project Mitigation 3.10B

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

C. Parks and Recreation

Environmental Setting

There are nine parks operated by the City of Hawthorne Recreation and Community Services Department that total 50.23 acres of park space within the City. The largest is Memorial Park covering 13.26 acres. None of the parks are located directly within the DHSP boundaries, but many are in close proximity including Eucalyptus Park, Hawthorne Memorial Park, and Jim Thorpe Park.

The City uses the state Quimby Act guidelines of one acre of park space per 1,000 residents as a citywide goal for allotment of park space. Hawthorne does not receive dedicated park funding through Quimby fees on development like other cities in the state. Instead, park improvements are funded through four primary sources: development impact fees levied only on new development, the City's General Fund, HUD, and other grant sources. Development impact fees are handled through the City's Public Work Department.

The Recreation and Community Services Department also maintains one municipal pool, and the Betty Ainsworth Sports Center, Memorial Center, and Senior Center. Membership to a recreation group called "Gad-A-Bouts" is available to senior residents of Hawthorne for $3.00 per year. The sports center offers open play for basketball, volleyball, and racquetball, all for very low fees. There are also a number of recreational classes available to residents all year round. There is no comparable target or standard in place for the City's recreation facilities. **Table 3.10-3** lists the City parks and **Figure 3.10-2** maps the City parks and recreational facilities.

Regulatory Framework

Federal Regulations

There are no federal regulations pertaining to parks that apply to the proposed DHSP.

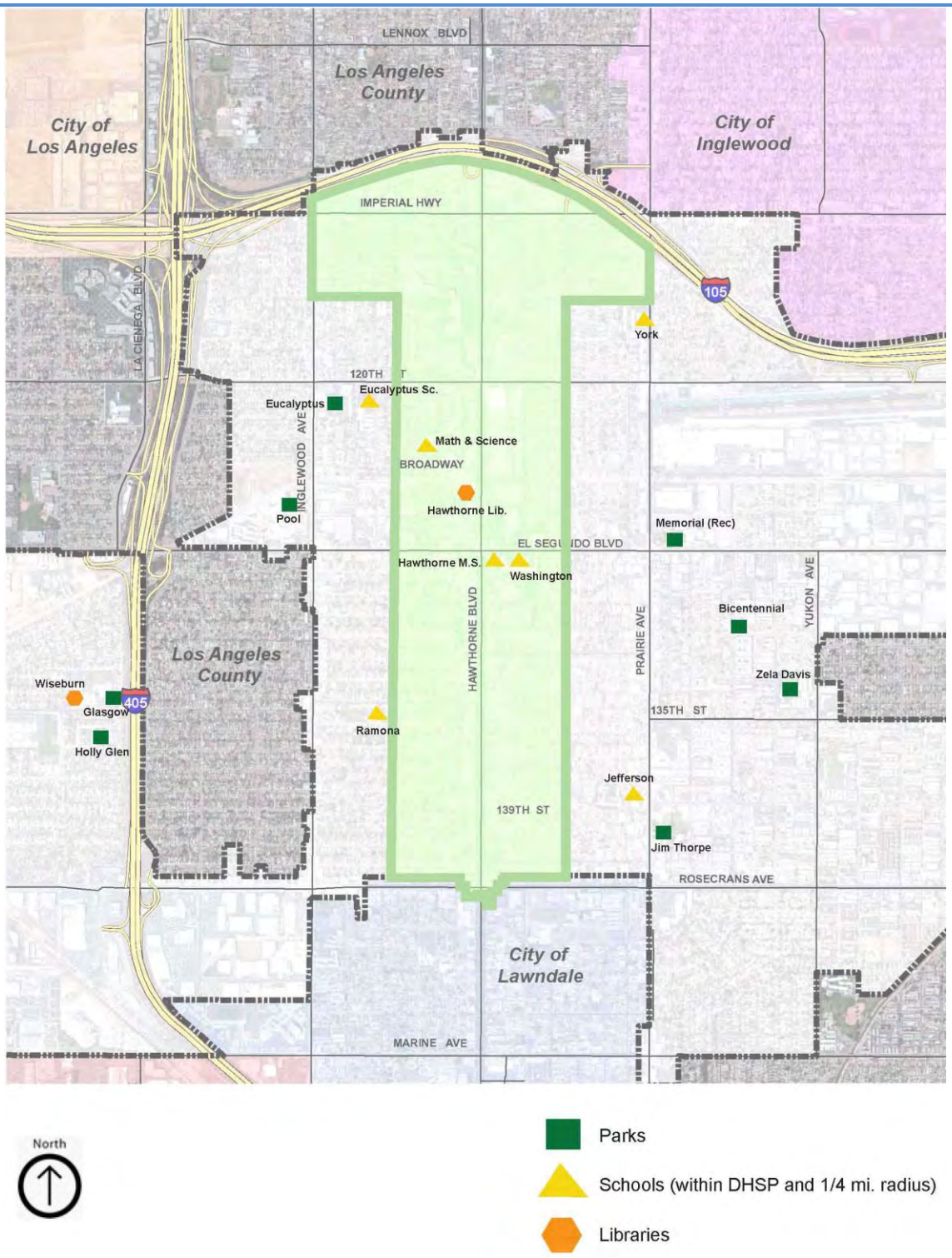
State Regulations

Quimby Act. The State Quimby Act was first established by the California legislature in 1965 (California Government Code §66477) authorizing cities and counties to pass local ordinances requiring developers to pay fees, set aside land for parks, or donate conservation easements as a condition of development. Revenue generated through Quimby cannot be used for operation or maintenance of park facilities but can be used to purchase and develop land or recreational facilities. The Quimby Act contains minimum open space/park acreage standards varying from 3-5 acres per 1,000 residents. The City of Hawthorne has not passed a local ordinance authorizing use of the Quimby Act, and instead uses other state-enabled impact mitigation fees (below). The City Recreation and Community Services Department does, however, use Quimby standard for park acreage to number of residents as a goal for allotment of park space in the City (1 acre per 1,000 residents).

Table 3.10-3: Parks and Recreational Facilities in Hawthorne

Name	Location	Acreage	Amenities
Eucalyptus Park	12100 S. Inglewood Ave	4.11	3 picnic shelters, picnic tables, BBQ grill, tot lot, wading pool, basketball courts, and skatepark, ¼ mile long walking path
Glasgow Place	13500 Glasgow Place	4.66	Picnic tables, par course equipment, ¾ mile long walking path
Holly Park	2058 W. 120th Street	12.14	Picnic shelter, BBQ grills, picnic tables, tot lot, wading pool, lighted tennis courts, 2 baseball fields, horseshoes, shuffleboard, basketball courts, croquet
Holly Glen Park	5255 W. 137th Street	2.0 (1.53 leased)	BBQ grills, picnic tables, tot lot, wading pool, lighted tennis courts, basketball court
Jim Thorpe Park	14100 S. Prairie Ave	8.67	Picnic tables, tot lot, wading pool, basketball courts, handball courts, 2 baseball fields, lighted tennis courts
Memorial Park	3943 El Segundo Blvd	13.26	BBQ grills, formal picnic area, indoor facilities, tot lot, wading pool, lighted tennis courts, basketball courts, bocce courts, par course equipment
Ramona Park	4662 W. 136th Street	1.69	Picnic tables, tot lot, wading pools, horseshoes, shuffleboard, basketball courts, croquet
Zela Davis Park	3650 W. 133rd Street	0.74	Picnic tables,tot lot
Bicentennial Park	13110 S. Doty Ave	0.91	2 lighted tennis courts
Hawthorne Pool	12501 Inglewood Ave	2.05	Lap pool, baby pool
Betty Ainsworth Sports Center, Memorial Center & Senior Center	3851 W. El Segundo Blvd	N/A	

Source: City of Hawthorne



Downtown Hawthorne Specific Plan Draft EIR	**Figure 3.10-2 Public Facilities**

California Mitigation Fee Act (AB 1600). The California Mitigation Fee Act (AB 1600) was adopted in 1989 empowering cities and counties to implement development impact fees for new development projects to help offset the impacts on public services from new development. Revenue from fees can be used for infrastructure like roads, storm drainage, police and fire facilities, or parks. Development impact fees cannot be used for ongoing maintenance, staffing, or for issues in the existing system. Cities and counties must be able to demonstrate a reasonable connection or nexus between the new development and the intended use for the fees.

Local Regulations

Hawthorne General Plan. The City's 1989 General Plan (most recent update) sets forth a policy goal to maintain existing park and recreation resources for the public, as well as to ensure that they are kept in good condition that will encourage broad use and accessibility. Accordingly, the General Plan states that the City will continue to assess the condition of the City's park and recreation resources as the City further develops into the future. Specifically, the General Plan, enabled by state legislation, allows the City to require developers of residential projects to either set-aside new parkland or pay a fee in lieu of doing so.

The Open Space and Recreation Element of the City's General Plan contains the following goals and policies related to parks and open space:

Goal 1: Encourage the development of a variety of recreational opportunities accessible to the public.

> **Policy 1.1**: Maintain existing parkland and recreation facilities in good condition in order to protect the public's investment and facilitate uses.
>
> **Policy 1.5**: The City shall maintain ongoing program of assessing and providing for open space and recreational needs in multiple family residential zones.
>
> **Policy 1.10**: The City shall require residential developers to pay a fee or dedicate parkland.
>
> **Policy 1.15**: The City shall establish and maintain a five-year park enhancement plan for ongoing budgeting of funds for park and recreation facility capital improvements, operations, and maintenance.

Hawthorne Municipal Code, Section 17.66.020 Improvement Fee. This section stipulates that a development impact fee will be established upon issuance of all permits for development in the City of Hawthorne to help fund public improvements. The city council sets forth the specific amount of the fee in a council resolution describing the benefit and impact area on which the development fee is imposed, as well as lists the specific public improvements to be financed, and describes the estimated costs of the facilities proposed. The council must also describe a reasonable relationship between the fee and the proposed developments, as well as set forth a time for payment. The development fee is paid by the developer prior to the issuance of building permits.

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to park and recreation facilities if it would: result in the provision of, or need for, new or physically altered parks and/or recreation facilities, the construction of which would cause significant environmental impacts.

Impacts and Mitigation Measures

Impact 3.10C Parks and Recreation

Specific Plan

As described above and in Chapter 2, Project Description, buildout of the proposed Plan and Transformative Projects is expected to result in a net increase of 317 residential dwelling units and an increase of approximately 2.17 million square feet of non-residential uses by 2035, which could increase demand for park and recreation facilities in the City. While the City is empowered to impose impact mitigation fees for new development, these fees may not be put to use for existing facilities or ongoing maintenance. Residential development resulting from the buildout of the DHSP will increase the population of City residents. In addition, non-residential uses (i.e. commercial/retail and office) will increase significantly; the activation of currently vacant or underutilized spaces resulting from new daytime uses could lead to a meaningful increase in park use.

The Hawthorne Recreation and Community Services Department uses the state Quimby Act guidelines of one acre of park space per 1,000 residents as a goal for availability of parkland in the City. There are currently 50.23 acres of park space (not including the Sports Center/Memorial Center complex) within city limits serving a population of approximately 86,644 (as of 2014) or approximately 0.60 acres of park space per 1,000 residents. The City is therefore not meeting its target for park acreage per resident. The City also does not have a Quimby Act-enabled ordinance in place that allows for dedicated park funding through developer fees (under Quimby, cities vote to adopt a local Quimby policy). Instead, a developer fee is imposed in accordance with AB 1600, a portion of which can be put towards park development. These fees falls short of what Quimby would otherwise provide specifically for parkland; however, the City seeks additional park funds through a combination of its General Fund money, Housing and Urban Development (HUD) funding, and foundational grants. As such, the City can continue to leverage these funding sources to ensure adequate investment in new park and recreation construction, as well as ongoing maintenance of existing park resources (through non-impact mitigation fee funding sources).

There are no parks directly within the DHSP area. The closest in proximity are: Eucalyptus Park (approximately 0.58 miles from Hawthorne City Hall, within the Plan area), Hawthorne Memorial Park (approximately 0.70 miles from Hawthorne City Hall), and Jim Thorpe Park (approximately 1.5 miles from Hawthorne City Hall). Because these parks are closest to the Plan area, it is conceivable that they will experience greater demand than other parks in the City. However, it should be noted that there are additional parks in other parts of the city as well as beyond Hawthorne city boundaries - for instance in adjacent Gardena and Inglewood. A simple assessment of parkland exclusively within Hawthorne boundaries doesn't necessarily capture actual park demand within the cluster of adjacent cities overall or account for other factors that impact park preferences. Also, the standard

metric of number of residents to park space doesn't account for new daytime population use, which comprise the majority of new development under full buildout of the Plan Area. However, because the City already lacks adequate supply of park space (per the standard of 1 acre per 1,000 residents) and any impact mitigation fees imposed cannot be used directly for maintenance or improvement to existing parks and recreational facilities (pursuant to AB 1600), this impact would be considered potentially ***significant***.

Transformative Projects

Buildout of the DHSP Transformative Projects is expected to generate a net increase of 663 residential units and an increase of 822,700 square feet of non-residential building space (commercial, medical, office, and public). Below is an impact analysis for each Transformative Project as it relates to park and recreation facilities.

Hawthorne Mall (T1): Approximately 76 percent of the 26-acre T1 site includes the existing vacant Hawthorne Mall structure and parking structure. Because the Mall site is currently vacant and hence does not bring any visitors, in terms of impact on parks it should be treated as a new project which will total over 858,000 square feet of non-residential development. The increase in commercial square footage will yield a new influx of people coming to shop or work that could increase demand on nearby parks (for instance, during lunch). Additionally, a net increase of 608 dwelling units will increase the residential demand on parks and recreation facilities. As discussed above, the City already has a park deficit, and hence any available funds for ongoing park maintenance should be leveraged to ensure this deficit doesn't increase. The impact of T1 on park and recreation space, therefore, is ***significant***.

Civic Center (T2): A net decrease of eight multi-family residential units and a net increase of 268,800 square feet of non-residential uses is projected for the T2 site. However, the impact of this project individually on park and recreation facilities is considered a ***significant*** impact**.**

South Bay Ford (T3): The T3 site is designated for mixed-use development, expected to generate a net increase of 55 multi-family units, and 19,800 square feet of non-residential uses (one-half commercial retail and one-half office). As with the other Transformative Projects, the impact of T3 is considered a ***significant***.

St. Joseph's Plaza (T4): T4 is a one-half acre site proposed for a public park/open space area. This project will serve as additional open space within the Plan area, and hence it would have a ***beneficial*** impact on parks and open space in the City.

As with the findings for the Specific Plan, parks and recreational impacts for three of the four Transformative Projects are considered potentially ***significant***.

Mitigation Measures 3.10C

The City shall adopt an ordinance authorizing use of the Quimby Act to require developers to pay fees, set aside land for parks, or donate conservation easements as a condition of development.

Level of Impact After Implementation of Project Mitigation 3.10C

The impacts of the proposed Plan would be significant; however, implementation of Mitigation Measures 3.10C would reduce adverse impacts to ***less than significant*** levels.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

D. Schools

Environmental Setting

The City of Hawthorne is primarily served by the Hawthorne School District, so this EIR will focus on analysis of this district. Other schools within City boundaries are Williams Elementary School, Trinity Lutheran School, St. Joseph's Catholic School, and Hawthorne Academy, a special education school. The Wiseburn Unified School District, a small public district consisting of seven schools, also serves portions of the City. All of Wiseburn Unified schools are located within Hawthorne city boundaries. Hawthorne lies just west outside of the Los Angeles Unified School District (LAUSD) boundaries with the exception of one school, Cimarron Elementary.

Schools located within DHSP boundaries are Hawthorne Math and Science Academy, Hawthorne Middle School, Washington Elementary School, Hawthorne Academy, and St. Joseph's Catholic School. Just outside of the Plan area boundaries are York Elementary School, Eucalyptus Elementary School, Hawthorne High School, Ramona Elementary School, Jefferson Elementary School, and Trinity Lutheran School.

Hawthorne School District

The Hawthorne School District is the primary school district serving the City and currently enrolls approximately 8,249 students in its seven elementary schools and three middle schools. All schools follow a modified traditional school calendar. There is one charter high school overseen by the District - Hawthorne Math and Science Academy. Students not attending Hawthorne Math and Science for high school attend one of seven high schools within the Centinela Valley Union High School District (CVUHSD)[7].

The Hawthorne District is currently undergoing a process to update their school facilities master plan[8]. Although school enrollment projections are not available for individual schools, enrollment in the Hawthorne District is projected to increase by 6.7 percent through 2019-20 for grades K-5 and by 2.0 percent for 6-8 in the same time span resulting in an approximate 4.0 percent increase for grades K-8[9]. The classroom loading standard for the Hawthorne District is 25 students per classroom for grades K-5 and 27 students per classroom for grades 6-8. District enrollment increased 0.2 percent (18 students) between school year 2010-2011 and 2014-2015. As of school year 2014-15, district-wide classroom utilization was at 102.1 percent of capacity for grades K-5 and 96.8 percent for grades 6-8; hence, the District is operating at near and slightly over capacity for these grade levels[10].

Table 3.10-4 lists of all public and charter schools serving the City of Hawthorne. (i.e. not including private schools).

[7] *http://www.centinela.k12.ca.us/*
[8] *Correspondence with Hawthorne School District Director of Facilities, Maintenance and Operations, May 2015*
[9] *School Facility Fee Justification Report for Residential, Commercial & Industrial Development Projects for the Hawthorne School District, February 2015*
[10] *School Facility Fee Justification Report for Residential, Commercial & Industrial Development Projects for the Hawthorne School District, February 2015*

Wiseburn Unified School District

The Wiseburn Unified School District is a small (tuition-free) public school system in the El Segundo/west Hawthorne area serving the Wiseburn communities of Del Aire, Hollyglen, and Wiseburn. Roughly, the District boundaries are Sepulveda Boulevard on the west, Marine Avenue on the south, Imperial Highway on the north, and Inglewood Avenue on the east. No part of the Wiseburn School District is within the DHSP boundaries.

Table 3.10D-1: List of Public and Charter Schools Serving Hawthorne

School Name	District	Type	Location	Grade Span	2015 Enrollment
Elementary Schools					
Eucalyptus School**	Hawthorne	Public	12044 South Eucalyptus Ave	K-5	1030
Jefferson School**	Hawthorne	Public	4091 West 139th Street	K-5	593
Kornblum School	Hawthorne	Public	3620 West El Segundo Blvd	K-5	659
Ramona School**	Hawthorne	Public	4617 West 136th Street	K-6	740
Washington School*	Hawthorne	Public	4339 West 129th Street	K-5	727
York School **	Hawthorne	Public	11838 South York Ave	K-5	624
Zela Davis School	Hawthorne	Public	13435 South Yukon Ave	K-5	1227
Juan Cabrillo Elementary School	Wiseburn	Public	5309 West 135th Street	K-2	485
Juan De Anza Elementary	Wiseburn	Public	12110 Hindry Ave	K-5	659
Peter Burnett Elementary	Wiseburn	Public	5403 West 138th Street	3-5	429
Da Vinci Science	N/A	Charter	13500 Aviation Blvd	K-12	508
Da Vinci Design	N/A	Charter	13500 Aviation Blvd	K-12	567
Da Vinci Innovation Academy	N/A	Charter	13500 Aviation Blvd	K-8	270

Table 3.10-4 (Cont.): List of Public and Charter Schools Serving Hawthorne

School Name	District	Type	Location	Grade Span	2015 Enrollment
Middle Schools					
Prairie Vista Middle School	Hawthorne	Public	13600 Prairie Ave	6-8	929
Bud Carson Middle School	Hawthorne	Public	13838 South Yukon Ave	6-8	775
Hawthorne Middle School*	Hawthorne	Public	4366 West 129th Street	6-8	909
Richard Henry Dana Middle School	Wiseburn	Public	5504 W. 135th Street	6-8	959
High Schools					
Hawthorne Math & Science Academy*	Hawthorne	Charter	4467 West Broadway	9-12	574
Hawthorne High School**	Centinela Valley	Public	4859 West El Segundo	9-12	2120
Centinela Valley Independent Study	Centinela Valley	Public	4953 Marine Ave (Lawndale)	9-12	231
Lawndale High	Centinela Valley	Public	14901 South Inglewood Ave (Lawndale)	9-12	2364
Leuzinger High	Centinela Valley	Public	4118 West Rosecrans Ave (Lawndale)	9-12	1726
R.K. Lloyde High	Centinela Valley	Public	14901 Inglewood Ave (Lawndale)	9-12	186

Sources: http://www.ed-data.org/; Hawthorne School District

Note: The table does not include private schools
** Denotes a location within DHSP boundaries.*
***Denote a location within one quarter mile radius of DHSP boundaries*

Regulatory Framework

Federal Regulations

There are no federal regulations relating to schools that apply to the proposed Plan and Transformative Projects.

State Regulations

State law empowers school districts in the state to charge fees on new residential, commercial, and industrial development if those developments are expected to generate additional students for the district, thereby causing a need for additional school facilities.

Government Code Section 65995: Authorizes school districts to collect developer fees at a maximum of $3.36 per square foot for residential construction and $0.54 for commercial/industrial construction (Level I fees). Level I fees are adjusted every two years according to the inflation rate as determined by the State Allocation Board.

Government Code Section 66001: Requires school districts demonstrate a reasonable relationship between the amount and use of developer fees and the development for which the fees are to be levied.

California State Assembly Bill 1600, Mitigation Fee Act (Section 66000 et seq. of the California Government Code): Enacted in 1989 as AB 1600, the Mitigation Fee Act allows local agencies to establish, increase, or impose a fee on developers for proposed development projects to help defray all or a portion of the cost for public facilities directly tied to that development. Any local agency wishing to impose a development impact fee as a condition of development must first be able to identify the direct application to which the fee will be used. The agency must be able to demonstrate a reasonable relationship ("nexus") between the fee and its intended purpose based on the development project in question.

Local Regulations

Under California Government Code Section 65995 (above), the Hawthorne School District imposes Level I fees on new residential and commercial/industrial development. Fee levels requested by the District must be substantiated in a School Facilities Fee Justification Report, the most recent of which was prepared in February 2015.

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to schools if it would: result in the provision of, or need for, new or physically altered school facilities, the construction of which would cause significant environmental impacts.

Impacts and Mitigation Measures

Impact 3.10D

Specific Plan

Buildout of the DHSP will bring new residential development to the City within the Plan area and would therefore increase demand on the City's existing schools through new student population. As reviewed in the Project Description, the net residential development potential of the total DHSP area is projected to be increase of 317 residential units. Using the Hawthorne District's student

generation rate, this would result in an increase of approximately 134 students in the K-8 grade levels by 2035 (116 K-8 students and 18 grades 6-8 students), with this figure fluctuating depending on the incremental stages of buildout.

The latest School Facility Fee Justification Report prepared for the Hawthorne School District estimates student generation rates for new single-family and multi-family housing units by counting the number of students in the District who live in housing units that paid developer fees between 2008 and 2013, and then dividing that number by the total number of housing units that paid developer fees over the same time period. Using this method, the student generation rate per residential housing unit is 0.365 for grades K-5 and .058 for grades 6-8, a total generation rate of 0.423 per housing unit. This method is used below for each Transformative Project's student generation projection. The same report estimates the (weighted) average school facility cost for a K-8 student generated by new residential development to be approximately $20,163. At a student generation rate of 0.423 per dwelling unit, the facility cost per new housing unit is then approximately $8,529**.** The report uses an estimate of 1,848 average square foot per dwelling unit for new residential dwelling units, equating to a facility cost of $4.62 per square foot. Level I fees are capped at $3.36 per square foot, and the Hawthorne District splits developer fee revenues with the Centinela Union High School District (with Hawthorne receiving 65%, or $2.18)

According to the District's 2015 School Facility Fee Justification Report for Residential, Commercial & Industrial Development Projects, the District is already anticipating that future residential development will generate additional students in the District to an extent that will yield inadequate school facilities for these students. As such, the District is prepared to impose the maximum allowable developer fees per state law (reviewed above) for both residential and commercial development. Hence all development that occurs in conjunction with the state law empowers school districts to collect school impact fees to accommodate enrollment growth, the impacts of this increase can also be mitigated by such fees. More, the District already has plans in place to construct new elementary and middle school facilities in anticipation of growth projected for the City more generally.

According to the above-referenced report, the District's current and projected enrollment over the next five years (i.e. through 2020) for grades K-5 is larger than its pupil capacity. Analysis conducted for the report projects that the District will grow 500 students beyond current available capacity by school year 2019-2020, to a district population of 8,579 above a current district-wide capacity of 8,216 for grades K-8. The District is therefore already in the process of addressing its overall need for additional facilities to accommodate growth. The District may also lease additional portable classrooms to use as interim classroom space while permanent school facilities are being constructed. Finally, it is conceivable that some portion of this student population will attend private schools in the area. Given that whatever growth does occur will be addressed through imposition of school facility mitigation fees enabled by state law, this impact is considered ***less than significant***.

Transformative Projects

As previously reviewed, buildout of the Transformative Projects will generate a net increase of 655 multi-family residential units in the Plan Area. Below is an impact analysis for each Transformative Project as it relates to school facilities.

Hawthorne Mall (T1): 608 multi-family residential units will be generated by the Hawthorne Mall Transformative Project. It is assumed that 50 percent of the total units or 304 units will be senior housing and the other 50 percent (304 units) will be market rate condominiums/townhomes. Therefore, projecting the number of new students will be based on the 304 units of market rate units. Using the Hawthorne School District student generation rate of 0.423 per dwelling unit for grades K-8, over the next five years this Transformative project will generate approximately 128 new students (110 for grades K-5 and 18 for grades 6-8) It is expected that the Hawthorne School District will impose the requisite school facility impact fees to accommodate these additional students in conjunction with its preexisting facility upgrades and expansion plan, and therefore this impact is ***less than significant***.

Civic Center (T2): Development of the Civic Center Transformative Project may result in a net decrease of eight residential dwelling units, and therefore there is ***no impact.***

South Bay Ford (T3): The South Bay Ford Transformative Project is expected to generate 55 new multi-family dwelling units. Using the Hawthorne School District student generation rate of 0.423 per dwelling unit for grades K-8, over the next five years this project will generate approximately 23 new students (20 for grades K-5 and three for grades 6-8). As with the T1 Project, which included residential development, it is expected that the District will impose the allowable school facility impact fees to accommodate these additional students in conjunction with its preexisting facility upgrades and expansion plan, and therefore this impact is ***less than significant***.

St. Joseph's Plaza (T4): The proposed development of the St. Joseph's Plaza Transformative Project is an open space park. T4 does not include any residential uses that will impact the school districts. There are ***no impacts*** *on school districts associated with the development of T4.*

Mitigation Measure 3.10D

No additional mitigation measures are required for school impacts associated with the implementation of the DHSP and the development of the Transformative Projects.

Level of Impact After Implementation of Project Mitigation 3.10D

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

E. Libraries

Environmental Setting

Public Libraries

The City of Hawthorne has two public libraries, the Hawthorne Library and the Wiseburn Library. Both libraries are operated by the Los Angeles County Public Library system. A more detailed overview of each library is provided below.

Hawthorne Library. The Hawthorne Library is located at 12700 Grevillea Avenue. It is located in the DHSP area and specifically within the boundaries of the Civic Center Transformative Project site. The building is approximately 17,000 square feet with a meeting room capacity of 130 people. There is a children's room, a County Family Place for early childhood support resources, and a "Teen Space." Select Non-English language collections are available in Spanish, Arabic, and Hindi. The library has 16 public computers, two children's computers, eight Homework Center computers, and free wi-fi.

Wiseburn Library. The Wiseburn Library is located at 5335 W. 135th Avenue. The building is 5,000 square feet. There is an additional Family Space located at this site. Select non-English collections are available in Spanish only. There are four public computers, four children's computers, three early literacy computers, and free wi-fi.

Additional County public libraries in close proximity are Lawndale Library, Masao W. Satow Library, Lennox Library, Wiseburn Library, and Manhattan Beach Library

Regulatory Framework

There are no federal, state, or local regulations related to libraries that apply to the proposed DHSP.

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to library services if it would: result in the provision of, or need for, new or physically altered library facilities, the construction of which would cause significant environmental impacts.

Impacts and Mitigation Measures

Impact 3.10E

Specific Plan and Transformative Projects

While it is expected that the increase in local employment and modest growth in population resulting from the Transformative Projects could increase use of available libraries, the LA County Board of Supervisors oversees implementation of an annual dedicated funding stream for the County's vast library system, divided into seven planning areas. With the assumption that the County Library System will continue to manage and monitor the condition of library facilities and availability of

library loan items, it is reasonable to expect that the impact of the DHSP and Transformative Projects on library services for the City of Hawthorne will be ***less than significant***.

Furthermore, the libraries within the City are part of a County-wide system established under authority of the County Free Library Act and a special fund department operating under the authority of the County Board of Supervisors. It is one of the largest library systems in the country with a 7.5 million volume book collection serving over 3.5 million residents throughout 51 of the 88 incorporated cities of the County. Hence, any population growth or decrease associated with the DHSP should be adequately served by this vast system. Moreover, while there are only two branches within Hawthorne city limits, additional branches can be found in nearby Lennox, Lawndale, Gardena, and Redondo Beach.

Mitigation Measures 3.10E

No mitigation measures are needed beyond the County's own management of its library network.

Level of Impact After Implementation of Project Mitigation 3.10E

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

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3.11 Public Utilities

This section discusses the potential impacts on existing utilities and service systems that could result from implementation of the proposed DHSP. Utilities and service systems reviewed include: water supply, wastewater, solid waste, stormwater, and energy.

A. Water Supply

Environmental Setting

Potable water supply in the City of Hawthorne is partially serviced by the California Water Service Company (Cal Water), Hawthorne District, and partially by Golden State Water Company (GSWC)[1]. Because the DHSP area falls almost entirely within the Cal Water system boundaries and Cal Water prepared an Urban Water Management Plan specifically for the City (adopted in 2012), this analysis will focus on Cal Water service to the City.

Cal Water - Hawthorne District

Cal Water is an investor-owned public utility company serving approximately 1.7 million Californians[2]. The Company has been servicing the City of Hawthorne since 1996. Cal Water's supply to Hawthorne comes from a combination of groundwater wells and surface water purchased from the Metropolitan Water District of Southern California (MWD). MWD water is imported from the Colorado River and the State Water Project in northern California. Cal Water's Hawthorne District service area covers three square miles, about half of the City's geography. Based on the most recent Urban Water Management Plan, the service area population was approximately 46,136.[3] Cal Water estimates service area population growth to reach approximately 57,423 by 2040. Single family residential uses form the majority of water services at approximately 75.8 percent of service share; as of 2010, multi-family was 13.8 percent, commercial 9.6 percent, and government the remaining portion. Single family residential service, however, only comprises 46.1 percent of total demand. Multi-family residential accounts for 31.7 percent. Since 2005, the demand per service in the Hawthorne District declined steadily, reaching a low point in 2010 at 231,500 gallons per service. **Table 3.11-1** shows actual and projected water demand in the City at five-year intervals from 2005 to 2040, five years after final buildout of the DHSP.

[1] *Phone call with representative from California Water Service Company, March 26, 2015.*

[2] *https://www.calwater.com/docs/uwmp/rd/Dominguez/2010_Urban_Water_Management_Plan_(DOM).pdf*

[3] *Cal Water Hawthorne District Urban Water Management Plan, 2010*

Table 3.11-1: Cal Water Hawthorne District Water Demand and Supply Actual and Projected (Acre Feet/Year, AFY)

	2010 (Actual)	2015	2020	2025	2030	2035
Water Demand	4,230	5,292	5,534	5,777	6,023	6,282
Water Supply Sources						
West Basin MWD	4,146	3,310	3,551	3,794	4,039	4,297
Groundwater Wells	0	1,882	1,882	1,882	1,882	1,882
Recycled Water	84	100	101	101	102	103
Total	**4,230**	**5,292**	**5,534**	**5,777**	**6,023**	**6,282**

Source: Cal Water Hawthorne District Urban Water Management Plan, 2010

Water Sources

Water sources consist of imported water purchased from the Metropolitan Water District of Southern California (MWDSC) from the Colorado River Aqueduct and State Water Project in Northern California, local groundwater wells, and recycled water. Cal Water's supply to Hawthorne comes from adjudicated groundwater pumping from the West Coast Basin (extracted using four wells), imported water purchased from the MWD through the West Basin Municipal District (WBMWD), and recycled wastewater produced by the WBMWD at their West Basin Water Recycling Plant located in El Segundo.

Imported Water - Metropolitan Water District. Cal Water purchases imported water from the MWDSC sourced from the Colorado River Aqueduct and the State Water Project in Northern California. The MWDSC owns the Colorado River Aqueduct, while the California Department of Water Resources owns the California Aqueduct, a facility of the State Water Project. The water is purchased through the West Basin Municipal District, a member agency of the MWDSC[4]. Hawthorne shares in combined water allocations with three other Cal Water Districts. The annual maximum allocated to the Hawthorne District specifically is 4,900 acre-feet. Historically, imported water accounts for 88 percent of the District's water demand. In 2010, however, imported purchased water comprised 98 percent of water supply and recycled water the remaining two percent.

Groundwater. Because the City leases management of its municipal water system to Cal Water, it has also transferred its adjudicated water right of 1,882 acre-feet per year of pumping from the West Coast Basin to Cal Water. The groundwater is extracted using four wells with a total design capacity of 5,600 GPM. This total capacity has the potential to provide 8,130 AF per year, well above the adjudicated pumping right; however, because of high mineral count in the well water and associated

[4] *https://www.calwater.com/docs/uwmp/rd/Dominguez/2010_Urban_Water_Management_Plan_(DOM).pdf*

water quality concerns, the wells are used sparingly. Future upgrades to the wells are planned for the Hawthorne District which could increase its share of water supply. Groundwater typically provides 10 percent of annual supply to the Hawthorne District. The Los Angeles County Department of Public Works owns and operates all groundwater recharge facilities through an ongoing inter-agency agreement. The Water Replenishment District of Southern California (WRD) is responsible for ensuring quality and reliability of groundwater supply.

Recycled Water. The City receives recycled water from regional wholesale water supply agency West Basin Municipal Water District (WBMWD). Recycled water is beneficial for groundwater recharge or direct use in landscaping and irrigation. Recycled water currently comprises 2.5 percent of water supply for the Hawthorne District. According to Cal Water's 2010 Urban Water Management Report Plan, recycled water supply will likely increase with customer growth and expansion of the distribution system. WBMWD has already constructed one of the largest water reuse project in the country and once fully constructed has the potential to delivery approximately 70,000 acre-feet of treated recycled water per year.

Water Supply Reliability. Cal Water's supply to Hawthorne is largely dependent upon annual precipitation in the Feather and Colorado River watersheds that link to the main aqueducts serving Southern California. The most recent UWMP for the Hawthorne District notes that the MWD's Urban Water Management Plan projects supply reliability and no expected deficiencies through 2040.

Regulatory Framework

Federal Regulations

Federal Safe Drinking Water Act. The Safe Drinking Water Act authorizes the US Environmental Protection Agency to set national standards for drinking water (National Primary Drinking Water Regulations). These regulations work to protect against naturally occurring and human-made contaminants in water supply. The Act sets enforceable maximum contaminant levels in drinking water and requires all water providers to treat water to remove any contaminants. If a water system does not meet standards, the water supplier is required to notify customers. In California State Department of Health Services is largely responsible for overseeing enforcement of these standards.

State Regulations

California Water Code. The California Water Code requires that urban water suppliers provide an Urban Water Management Plan (UWMP) to the Department of Water Resources, the California State Library, and any municipality to which the supplier provides water.

Senate Bill 610 and 221. SB 610 and SB 221 are companion measures that amended state law in 2002 to improve the connection between water supply availability and land use decisions made by local jurisdictions and improve collaborative planning between suppliers and cities or counties. The measures are targeted towards proposed large development projects, to better ensure water availability prior to approval by keeping detailed information on record to support decisionmaking. Compliance with both SB 610 and SB 221 is laid out through preparation of an UWMP. Both of these

statutes identify the UWMP as a planning document that can be used by a water supplier to meet the standards set forth in both bills.[5]

Water Conservation Act of 2009 (Senate Bill x7-7). SBx7-7 amended the State Water Code to require of all urban retail water suppliers subject to the Urban Water Management Planning Act a 20 percent reduction in urban water use per capita by December 1, 2020 ("20x2020 policy"). The new policy requires suppliers to develop specific water use reduction targets, compliance to which is linked to state water grants[6]. Suppliers are also permitted to meet compliance by forming regional alliances. Cal Water's 2010 UWMP states intent to do this among its five districts within the South Coast hydrologic region.

Sustainable Groundwater Management Act of 2014. The Sustainable Groundwater Management Act (SGMA) of 2014 was signed into law by Governor Jerry Brown to provide a legislative framework for sustainable groundwater management by local jurisdictions. Under the Act, local groundwater agencies (GSAs) are formed to evaluate condition in their local water basins for the purpose of adopting local management plans. The Act provides a 20-year span for implementing these plans without requiring changes to existing surface and groundwater rights[7].

Governor Jerry Brown Executive Order B-29-15: On April 1, 2015, Governor Jerry Brown passed an executive order declaring a State of Emergency in the state due to prevailing drought conditions. The Order calls on the State Water Resources Board to impose a 25 percent reduction in potable water use through February 28, 2016. The reduction will be collectively imposed upon the state's 411 urban water districts combined. The state Water Resources Control Board is currently working on "translating" this Order into tangible regulations[8].

Local Regulations

Hawthorne City Council Resolution No. 7657 and Ordinance No. 2080: In September, 2014, Ordinance 2080 Water Conservation Program was adopted by City Council declaring a drought emergency and adopting a water conservation plan by directing the City's Public Work Director to implement Stage II, Water Shortage Contingency Plan, of the City's Urban Water Management Plan adopted in 2010 (Section 8.60.021 of Ordinance No. 2080)[9]. The Ordinance added Chapter 8.60 to Title 8 *Health and Safety* of the Hawthorne Municipal Code.

The City's Water Conservation Program includes the following:

A. The washing down of paved surfaces, including but not limited to sidewalks, driveways, parking lots, tennis courts, or patios, is prohibited, except when it is necessary to alleviate safety or sanitation hazards.

B. The wasting of water resulting from inefficient landscape irrigation, such as runoff, low head drainage, or overspray, etc. is prohibited. Water flowing onto non-targeted areas, such as

[5] *http://www.water.ca.gov/pubs/use/sb_610_sb_221_guidebook/guidebook.pdf*
[6] *https://www.calwater.com/docs/uwmp/rd/Dominguez/2010_Urban_Water_Management_Plan_(DOM).pdf, p. 35*
[7] *http://www.acwa.com/content/groundwater/groundwater-sustainability*
[8] *http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/docs/040115_executive_order.pdf*
[9] *http://static1.squarespace.com/static/52ec83cee4b032691e28b3ce/t/5451c131e4b05f91a2ea5a33/1414644017850/Resolution+No++7657.pdf*

adjacent property, non-irrigated areas, hardscapes, roadways, or structures is also prohibited.

C. The irrigation of residential and commercial landscape is permitted before 8 a.m. and after 6 p.m. only and not during or within forty-eight (48) hours after a measurable rainfall.

D. The watering of landscaped areas, including trees and shrubs, located on residential and commercial properties that are not irrigated by a landscape irrigation system requires the use of a hand-held hose equipped with a positive shut-off nozzle or bucket.

E. The irrigation of nursery and commercial grower's products is only permitted before 8 a.m. and after 6 p.m. only. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket, or when a drip/microirrigation system/equipment is used. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.

F. Re-circulated water is required to operate ornamental fountains.

G. The washing of vehicles requires the use of a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that re-circulates (reclaims) water on-site. Washing during hot conditions is prohibited when additional water is required due to evaporation.

H. The service and refill of water at restaurants and other food service establishments shall only occur upon request.

I. Hotels, motels, and other commercial lodging establishments are required to offer guests the option of not laundering towels and linens daily.

J. The repair of all water leaks within five (5) days of notification by the City of Hawthorne or the water agency is required, unless other arrangements are made with the Code Enforcement Department.

K. The use of recycled or non-potable water for construction purposes is required, when available.

L. Irrigation of ornamental turf in public street medians with potable water is prohibited

M. Irrigation outside newly constructed homes and buildings with potable water is prohibited unless delivered by drip irrigation and/or micro spray

N. Other duly adopted restrictions on the use of potable water as prescribed from time to time by the Public Utilities Commission or other authorized government agencies are incorporated herein by reference.

O. Irrigating ornamental landscapes with potable water is limited to no more than two (2) days per week on a schedule established as follows:

   i. Water users with even-numbered addresses may irrigate on Saturdays and Tuesdays.

   ii. Water users with odd-numbered addresses may irrigate on Sundays and Wednesdays.

iii. (iii)Water users without a street address may irrigate on Saturdays and Tuesdays.

iv. (iv)Notwithstanding the foregoing restrictions, irrigation of special landscape areas or commercial nurseries may occur as needed, provided that the water user who wishes to irrigate a special landscape area or commercial nursery presents the City of Hawthorne or its agent with a plan to achieve water use reductions commensurate with those that would be achieved by complying with foregoing restrictions -

The foregoing restrictions do not apply to:

(i) Landscape irrigation zones that exclusively use drip irrigation systems and/or micro spray irrigation system;

(ii) Irrigation of ornamental landscapes with the use of a hand-held bucket or similar container, a continuously monitored hose which is fitted with an automatic shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use or monitored, or for the express purpose of adjusting or repairing an irrigation system.

In addition, each customer will be given a specific monthly water budget, to be determined by the water supplier and communicated via monthly bills. This budget will prescribe a usage amount and exceeding this amount may result in penalties.

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to water supply if it would:

- Result in insufficient water supplies available to serve the project from existing entitlements and resource; or,
- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impacts and Mitigation Measures

Impact 3.11A-1 Water Supply

Specific Plan

As described above and in Chapter 2, Project Description, buildout of the proposed DHSP is expected to result in a net increase of 317 residential dwelling units and a net increase of approximately 2.17 million square feet on non-residential uses (retail/commercial, and office development) by 2035. However, since the existing Hawthorne Mall has been vacant since 1999, calculations of water demand and other utility demands will be based on a net increase of approximately 2.49 million square feet of non-residential development between 2015 and 2035. According to Table 3.11-2 (Net Water Demand), buildout of the DHSP (2035) would increase demand for water by 691,173 gallons per day, or an equivalent of 775 acre feet per year (AFY).

The Cal Water supply to Hawthorne is deemed stable through 2040. As presented in previous Table 3.11-1, water supply for the Cal Water Hawthorne District is projected to increase from 5,292 AFY in 2015 to 6,282 AFY in 2035, an increase of 990 AFY. Hence, water demand from buildout of the DHSP could be accommodated in 2035. Moreover, there are a number of federal, state, and local level measures to ensure that new development includes the requisite water efficiency measures. This includes Hawthorne's recently adopted Ordinance No. 2080 declaring a drought emergency and adopting a water conservation plan. Therefore, water impacts are considered ***less than significant***.

Table 3.11-2: Net Water Demand by Transformative Project and Total DHSP

Land Use		Net Increase DUs or 1000 SF	Water Demand Factor (Gal./DU or 1000 SF)[a]	Water Demand
Transformative Project				
T1 Hawthorne Mall	DU	608	205	124,640
	Retail	403	340	137,020
	R&D	455	105	47,775
	Total			309,435
T2 Civic Center	DU	(8)	164	(1,312)
	Retail	79	340	26,860
	Office	70	210	14,700
	Hotel	300 rooms	131	39,300
	Total			79,548
T3 South Bay Ford	DU	55	164	9020
	Retail	10	105	1,050
	Office	10	210	2,100
	Total			12,170
T4 St. Joseph's Plaza	Retail	(2)	105	(210)
Total				**400,943**
Remaining DHSP				
DU		(338)	205	(69,290)
Retail		672	325	218,400
Office		672	210	141,120
Total				**290,230**
Total DHSP				
Total				**691,173[b]**

Source: Los Angeles County Sanitation Districts Generation Factors

[a] *Water usage based on 1.05 of wastewater generation factor*

[b] *1 Gallon (US fluid) per day is equal to approximately 4.381 263 638 888 x 10^{-8} m^3/s.*

Transformative Projects

Buildout of the DHSP Transformative Projects (T1, T2, T3, and T4) will total a net increase of 655 residential units and over one million square feet of non-residential uses. Based on water demand factors by land use, the Transformative Projects are projected in increase water demand by 400,943 GPD or 449 AFY. Water supplied by Cal Water for the Hawthorne District is projected to increase from 5,292 AFY in 2015 to 5,534 AFY in 2020, or an increase of 242 AFY during the five-year period. Based on the future water supply and the projected water demand from the Transformative Projects, there would be a shortage of 207 AFY of water in 2020. Although there are a number of federal, state, and local level measures to ensure that new development includes the requisite water efficiency measures, including Hawthorne's recently adopted Ordinance No. 2080 declaring a drought emergency and adopting a water conservation plan, the future development of the Transformative Projects are considered ***significant***.

Mitigation Measures 3.11A-1

Implementation of the proposed DHSP would not result in any significant impact on 2035 water services; however, development of the Transformative Projects would result in a significant impact on water supply. No additional mitigation measures are required for the DHSP in 2035; however, all new development shall comply with the water conservation measure in the California Green Building Standards Code (Part 11 of Title 24, California Code of Regulations) and the City's Water Conservation Plan.

Level of Impact After Implementation of Project Mitigation 3.11A-1

The impacts of the proposed Plan in 2020 is considered a ***unavoidable significant*** impact.

Impact 3.11A-2 Water Distribution Facilities

Specific Plan

The existing water distribution facilities serving the DHSP area have sufficient capacity to serve the proposed land uses for both the Transformative Areas (2020) and the Specific Plan (2035) at buildout. Minor improvements are recommended to extend service throughout the project site, but there would be no need to upgrade off-site existing infrastructure to serve the proposed land uses. Lateral lines would connect the proposed development within the Specific Plan area to existing water distribution facilities and replacement lines operational before connection to the water system to ensure service to existing uses is not interrupted. Water facilities are show in Figure 2-6 (Infrastructure Diagram) in *Chapter 2, Project Description*. Any utilities and service systems upgrades deemed necessary by the City and/or Cal Water for the purpose of serving the uses within the DHSP area would be at the cost of the individual project applicants. Therefore, the impact of connecting the land uses in the proposed DHSP to the existing water distribution system is considered to be ***less than significant*** for both the Transformative Projects and the Specific Plan at buildout.

Transformative Projects

Please refer to the impact analysis for the Specific Plan.

Mitigation Measures 3.11A-2

Implementation of the proposed DHSP would not result in any significant impact on the water distribution system for both 2020 and 2035. No mitigation measures are required.

Level of Impact After Implementation of Project Mitigation 3.11A-2

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the impact of the DHSP would remain ***less than significant***.

Unavoidable Significant Adverse Impact(s)

A net unavoidable significant adverse impacts are anticipated.

B. Wastewater

Environmental Setting

The Plan area is located within the Los Angeles County Sanitation Districts (LACSD) District No.5. The LACDS own, operate, and maintain the large trunk sewers serving the regional wastewater conveyance system within the Dominguez Service Area[10]. Wastewater is collected through a citywide network of gravity sewers and lift stations and conveyed to the County Sanitation District's Joint Water Pollution Control Plant (JWPCP) located in the City of Carson. Wastewater conveyed to the plant receives secondary treatment before it is released through an ocean outfall[11]. The JWPCP has a design capacity of 400 million gallons per day (mgd) and currently processes an average daily flow (DWF) of 263.4 mgd[12]. The plant has a remaining capacity of about 100 mgd[13].

The local system of collector and lateral sewer lines is overseen by the City, while the City's overall wastewater collection system is regulated under the jurisdiction of the Los Angeles Regional Water Quality Control Board, the State Water Resources Control Board, and the U.S. Environmental Protection Agency. Within Hawthorne, there are 96 miles of gravity sewer ranging in diameter from 4-18 inches. 40 miles of County sewers are also routed inside the City. *boundaries.* There are over 2,000 manholes as well as "Hot Spot" locations in the sewer system that tend to accumulate heavier root and grease buildups. The City monitors this with "smart" covers for increased upkeep and maintenance. As of February 2015, the Hawthorne City sewer system served a population of approximately 90,000. Ninety percent of the City's sewer system piping was constructed between 1939 to 1959[14]. No deficiencies presently exist in the District's regional facilities that serve Hawthorne.

Regulatory Framework

Federal Regulations

Federal Clean Water Act: The Clean Water Act (CWA) of 1972 establishes basic regulations for discharging pollutants into watersheds throughout the United States. The CWA also provides for regulation of water quality standards and contaminants in surface water. The EPA oversees implementation of the CWA through pollution control programs and by setting said wastewater standards[15].

National Pollutant Discharge Elimination System (NPDES): The NPDES permit program (1972) regulates water pollution by monitoring point sources of discharge pollutants entering the waterways. Point sources typically include treated wastewater, process water, cooling water, and stormwater runoff from drainage systems. Permits are required for most industrial, municipal, and

[10] *Letter received from County Sanitation Districts of Los Angeles County dated March 20, 2015.*
[11] *https://www.calwater.com/docs/uwmp/rd/Dominguez/2010_Urban_Water_Management_Plan_(DOM).pdf, 51*
[12] *Letter received from County Sanitation Districts of Los Angeles County dated March 20, 2015.*
[13] *City of Hawthorne Initial Study for the General Plan and Zone Change Amendment, 2014.*
[14] *Correspondence from Hawthorne Public Works Department, April 2015.*
[15] *http://www2.epa.gov/laws-regulations/summary-clean-water-act*

other types of facilities that discharge directly into surface waters. NPDES permits are not required for individual homes that connect to a municipal system, use a septic system, or do not otherwise generate surface discharge[16].

State Regulations

State Water Resources Control Board (SWRCB): The SWRCB and nine regional boards oversee water quality in the State as well as allocate surface water rights. The General Waste Discharge Requirement (WDR) was adopted in 2006 to provide a consistent statewide approach to regulating and reducing sanitary sewer overflows (SSOs) under Water Quality Order No. 2006-0003 (Sanitary Sewer Systems WDR). All public agencies that own or operate sanitary sewer systems are required to implement a sewer system management plan (SSMP) with regular reporting to the State Water Board. SSOs are defined as "Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system"[17].

Local Regulations

Los Angeles County Sanitation Districts and California Health & Safety Code: The County Sanitation Districts are empowered by the state's Health and Safety Code to impose a capital facilities fee for connecting, directly or indirectly, to the District's Sewerage System. This fee is used to support the cost of constructing expansions to the District's' Sewerage System for increases in the quantity of wastewater attributable to proposed projects[18].

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to wastewater facilities if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Result in a determination by the wastewater treatment provider which serves or may serve the plan area that it has inadequate capacity to serve the plan area's projected demand in addition to the provider's existing commitments.

[16] *http://water.epa.gov/polwaste/npdes/*

[17] *http://www.waterboards.ca.gov/water_issues/programs/sso/#general*

[18] *Letter received from County Sanitation Districts of Los Angeles County dated March 20, 2015.*

Impacts and Mitigation Measures

Impact 3.11B Wastewater

Specific Plan

Implementation of the DHSP would result in an incremental increase in wastewater generation. **Table 3.11-3** provides estimates for anticipated wastewater generation as a result of buildout of the DHSP. A net increase of 317 housing units and a net increase of 2.17 million square feet of non-residential building space by 2035. At this level of growth, the City would increase its sewage flow by an estimated 669,232 gallons per day (gpd). As described above, there is a remaining capacity at the JWPCP treatment facility of approximately 100 mgd. Therefore, the wastewater generated from the implementation of the proposed Plan would represent approximately 0.67 percent of the remaining design capacity at the JWPCP treatment facility.

Also, the City of Hawthorne falls under the jurisdiction of the Regional Water Quality Control Board, Los Angeles Region. As reviewed above, wastewater in the City is conveyed first through the City's sewer network into County trunk sewer lines before it is brought to the County Sanitation District's JWPCP where it receives secondary treatment. The County is responsible for ensuring that the design capacities of their wastewater treatment facilities are compliant with federal regulations. To manage treatment and growth in the system the County uses regional population growth forecasts adopted by Southern California Association of Governments (SCAG) and as such the Districts' available capacity is intended to provide service levels associated with on par with growth already projected for the region[19]. The increase in wastewater generated by implementation of the DHSP is considered a ***less than significant*** impact.

Transformative Projects

The above analysis of impacts from wastewater generation resulting from the DHSP include the net impact of the whole Specific Plan area, which includes the four Transformative Projects. **Table 3.11-3** showing wastewater generation from Transformative Projects in 2020. The total wastewater generated by the Transformative Projects is 382,342 gdp which represents 0.38 percent of the overall capacity of the JWPCP treatment plant. This is considered a ***less than significant*** impact.

Mitigation Measures 3.11B

Implementation of the proposed DHSP would not result in any significant impact on wastewater services, and therefore, no mitigation measures are required.

Level of Impact After Implementation of Project Mitigation 3.11B

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

[19] *Letter received from County Sanitation Districts of Los Angeles County dated March 20, 2015.*

Table 3.11-3: Net Wastewater Generation by Transformative Project and Total DHSP

Land Use		Net Increase DUs or 1000 SF	Wastewater Generation Factor (Gal./DU or 1000 SF)	Wastewater Generated (GPD)
Transformative Project				
T1 Hawthorne Mall	DU	608	195	118,560
	Retail	403	325	130,975
	R&D	455	100	45,500
	Total			295,035
T2 Civic Center	DU	(8)	156	(1,248)
	Retail	79	325	25,675
	Office	70	200	14,000
	Hotel	300 rooms	125	37,500
	Total			75,927
T3 South Bay Ford	DU	55	156	8,580
	Retail	10	100	1,000
	Office	10	200	2,000
	Total			11,580
T4 St. Joseph's Plaza	Retail	(2)	100	(200)
Total				**382,342**
Remaining DHSP				
DU		(338)	195	(65,910)
Retail		672	325	218,400
Office		672	200	134,400
Total				**286,890**
Total DHSP				
Total				**669,232**

Source: Los Angeles County Sanitation Districts Generation Factors

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

C. Solid Waste

Environmental Setting

Allied Waste Service, a subsidiary of Republic Services, Inc., serves as the sole residential and commercial hauler for the City of Hawthorne[20]. The City of Hawthorne generates approximately 140,000 tons of solid waste annually, about half of which gets recycled[21]. The majority of waste collected by Republic Services is first taken to be sorted at the American Waste Transfer Station, located at 1449 Rosecrans Avenue in Gardena[22]. The permitted capacity is 4,032 tons of waste per day and accepts the following waste types: mixed municipal, agricultural, inert, industrial, construction, green materials, manure, and metals. The permit for the facility is current and was issued in 1998[23].

With the 2013 closure of the Puente Hills Landfill, the City was designated a Recycling Market Development Zone. This qualifies the City for various resources and business incentives to divert waste from landfills, expand recycling markets, and create jobs. The City of Hawthorne has also been in full compliance with the California Integrated Waste Management Board's AB939 (Source Recovery and Recycling Element) waste reduction requirements, including: free recycling services for city residents, green waste recycling, and annual household hazardous waste collection events. All street improvement projects now use asphalt containing recycled tires, as well as a recycled content procurement policy[24]. As part of the City's waste minimization efforts, a recycling program is in place for future development in which green waste, refuse, and recyclables are pre-sorted into separate bins for waste pickup. All City residents receive a quarterly newsletter, "One Person's Trash", detailing the City's recycling and resource conservation programs. The City also adopted a Construction and Demolition (C&D) Debris Waste Minimization Plan in which all owners, developers, and contractors for projects over 10,000 square feet (gross floor area) are required to divert at least 50 percent of the C&D generated. The Department of Building and Safety requires a D&D debris report to be satisfactorily completed prior to the issuance of Certificate of Occupancy for any new projects.

According to information obtained from Republic Services, two landfills are currently used for disposal of solid waste generated in the City of Hawthorne: Sunshine Canyon and Olinda. Republic Services owns and operates the Sunshine Canyon (14747 San Fernando Road, Sylmar), which covers 1,036 acres, 363 of which are permitted for disposal of non-hazardous solid waste. The current remaining capacity for the landfill is estimated to provide disposal until 2037, although this could vary depending on the volume of waste received for disposal. The facility currently accepts approximately 9,000 tons of waste daily and has a remaining capacity of 96.8 million tons[25].

[20] *http://www.californiawasteservices.com/hawthorne.html*
[21] *http://www.calrecycle.ca.gov/NewsRoom/2014/01Jan/04.htm*
[22] *Phone call with Republic Services dated April 14, 2015*
[23] *http://www.calrecycle.ca.gov/SWFacilities/Directory/Detail/List?COUNTY=Los+Angeles&OPSTATUS=Active&LEA=19-AA*
[24] *http://www.cityofhawthorne.org/green-initiative/*
[25] http://www.sunshinecanyonlandfill.com/home/pdf/FINAL_Fact_Sheet-1.pdf

Regulatory Framework

There are no federal regulations in regards to solid waste applicable to the proposed DHSP.

State

Integrated Waste Management Act (AB 939): The CA Integrated Waste Management Act was enacted in 1989 mandating municipalities to meet solid waste diversion goals of 25 percent by 1995 and 50 percent by 2000. This was measured by establishing base-year solid waste generation taken to landfills compared against amount of solid waste subsequently diverted. Part of this requirement was the creation of an Integrated Waste Management Plan to pursue new recycling programs or waste minimization initiatives[26].

State Mandatory Commercial Recycling Law (AB 341): AB 341 was enacted in 2011, imposing mandatory recycling for businesses and multi-family residential uses. All businesses that generate four or more cubic yards of waste weekly are required to provide recycling. Multi-family housing with five or more units must also provide recycling[27].

Local

City of Hawthorne Construction and Demolition (C&D) Recycling Ordinance: Hawthorne's C&D ordinance applies to all C&D projects over 10,000 square feet in gross floor area. The ordinance requires contractors to report the amounts of C&D debris reused, recycled, or disposed for construction and demolition projects (including public works projects and private sector construction)[28].

City of Hawthorne Source Recovery and Recycling Element (SRRE). The City of Hawthorne has adopted a Source Recovery and Recycling Element (SRRE) as required by Assembly Bill (AB) 939, the California Integrated Waste Management Act of 1989. AB 939 requires the City to adopt an SRRE, and to divert 25 percent of the solid waste from its landfills by January 1, 1995 and 50 percent by the year 2000.

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to solid waste facilities if it would:

- Not be served by a landfill with sufficient permitted capacity to accommodate the Plan's solid waste disposal needs;
- Not comply with federal, state, and local statutes and regulations related to solid waste; or,
- Contribute to cumulative solid waste impacts in the area.

[26] *http://www.cawrecycles.org/facts_and_stats/california_recycling_laws*
[27] *http://site.republicservices.com/site/pacheco-ca/en/pages/recycling.aspx*
[28] *http://www.californiawasteservices.com/hawthorne.html*

Impacts and Mitigation Measures

Impact 3.11C Solid Waste

Specific Plan

As presented in **Table 3.11-4**, buildout of the DHSP could increase the generation of solid waste by approximately 52,912 pounds or approximately 26 tons per day. The maximum permitted daily disposal rate for Sunshine Canyon Landfill is 9,000 tons of solid waste per day and 8,000 tons per day into the Olinda landfill. The DHSP overall represents 0.29 percent of the maximum permitted daily disposal rate for Sunshine Canyon and 0.33 percent for Olinda. Moreover, all new development in the City is required to implement existing and future waste reduction programs in conformance with the City's SRRE, which will help reduce the amount of disposed solid waste. Existing landfill facilities and average daily waste allowance coupled with the City's overall waste reduction and recycling policies make this impact ***less than significant***.

Transformative Projects

Table 3.11-4 showing solid waste generation from Transformative Projects in 2020. The total Transformative Projects in 2020 would generate an estimated 28,741 pounds or 14 tons of solid waste per day. The maximum permitted daily disposal rate for Sunshine Canyon Landfill is 9,000 tons of solid waste per day and 8,000 tons per day into the Olinda landfill. The DHSP overall represents 0.16 percent of the maximum permitted daily disposal rate for the Sunshine Canyon Landfill and 0.18 percent for the Olinda Landfill. Moreover, all new development in the City is required to implement existing and future waste reduction programs in conformance with the City's SRRE. Existing landfill facilities and average daily waste allowance coupled with the City's overall waste reduction and recycling policies make this impact ***less than significant***.

Mitigation Measure 3.11C

Implementation of the proposed DHSP would not result in any significant impact on wastewater services, and therefore, no mitigation measures are required.

Level of Impact After Implementation of Project Mitigation 3.11C

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.

Table 3.11-4: Net Solid Waste Generation by Transformative Project and Total DHSP

Land Use		Net Increase DUs or 1000 SF	HH and Employee Factor	Employees	Generation Factor (Lbs/Day)	Solid Waste Generation (Lbs/Day)
Transformative Project						
T1 Hawthorne Mall	DU	608			12.23	7,436
	Retail	403	500	806	10.53	8,487
	R&D	455	500	910	8.93	8,126
	Total					24,049
T2 Civic Center	DU	(8)			12.23	(98)
	Retail	79	500	158	10.53	1,664
	Office	70	500	140	10.53	1,474
	Hotel	300 rooms				600
	Total					3,640
T3 South Bay Ford	DU	55			12.23	673
	Retail	10	500	20	10.53	211
	Office	10	500	20	10.53	211
	Total					1,094
T4 St. Joseph's Plaza	Retail	(2)	500	(4)	10.53	(42)
Total						**28,741**
Remaining DHSP						
DU		(338)			12.23	(4,134)
Retail		672	500		10.53	14,152
Office		672	500		10.53	14,152
Total						**24,171**
Total DHSP						
Total						**52,912**

Source: City of Los Angeles CEQA Thresholds Guide, 2006

D. Stormdrain

Environmental Setting

There are six major watersheds in Los Angeles County, served by the Los Angeles County Flood Control District (LACFCD) for the large majority of the region's stormwater drainage infrastructure. The City of Hawthorne is part of the Dominguez Watershed. The 15-mile Dominguez Channel (maintained by the LACFCD) serves as the major channel for the watershed area. Approximately 93% of the land within the watershed is urbanized developed land[29]. The Channel drains approximately 62 percent of the Dominguez Watershed and is the largest single drainage infrastructure within the watershed. The channel begins in the City of Hawthorne, at 116th Street, and continues southwesterly through Hawthorne, Gardena, Torrance, Carson, and Los Angeles before emptying into the Consolidated Slip of Los Angeles Harbor (around the intersection of Henry Ford Avenue and Anaheim Street)[30]. The City of Hawthorne is fully developed with impervious surfaces, including buildings and pavement. Existing stormwater facilities are deemed adequate to convey the area's stormwater runoff to local and regional facilities[31]. All drainage channels within the City of Hawthorne are maintained by the County. This includes trash removal, clearing vegetation, and removing sediment.

The Dominguez Channel contains remnants of persistent legacy pesticides as well as PCBs that result in poor sediment quality both within the Channel Harbor and in adjacent Inner Harbor areas. The total loading of OC pesticides, PCBs, PAHs, and metals are a combined result urban runoff and multiple NPDES permits within the watershed. Stormwater discharges in the Dominguez Channel Watershed are regulated under the MS4 permit, Caltrans permit, general industrial stormwater permit, and general construction stormwater permit. [32].

Regulatory Framework

Federal Regulations

Clean Water Act (CWA): The 1972 CWA legislation established two national goals: to eliminate the discharge of pollutants into the nation's waters and to achieve water quality that is "fishable" and "swimmable." Section 402 of the CWA deals with the discharge of pollutants into waters of the United States. It prohibits discharge of any point source pollutants (for example, discharge from sewage treatment plants) to waters of the United States unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit, covered under Section 402(p) of the CWA. Non-point source discharges (for example, stormwater or urban runoff) were not fully covered under the NPDES permit program until a 1987 amendment that identified non-point sources as

[29] *http://dpw.lacounty.gov/lacfcd/sediment/dcon/FactSheet7watershed.pdf*
[30] *http://www.ladpw.org/wmd/watershed/dc/DCMP/docs/Section%202%20Background%20Information%20Report.pdf*
[31] *Hawthorne Initial Study, 2014*
[32] *http://www.ladpw.org/wmd/watershed/dc/DCMP/docs/Section%202%20Background%20Information%20Report.pdf.*

another major contributor to surface water pollution. In California, the NPDES program is administered by the State.

State/Local Regulations

Los Angeles Regional Water Quality Control Board (LAWWQCB). The state's nine Regional Water Quality Control Boards implement the municipal stormwater NPDES permit program. The State issues regional permits for urban areas that are responsible for significant sources of pollutants or are large contributors to water quality standard violations. These regional permits cover all municipalities within the defined urban area. Hence, cities within the Dominguez Watershed are included in the regional Los Angeles County NPDES permit.

Los Angeles County Municipal Permit. In 2001, the Regional Board issued a municipal stormwater permit to incorporated cities within Los Angeles County (except Long Beach), collectively known *Co-permittees*. The Co-permittees developed six "Model Programs for Stormwater Management within Los Angeles County" to guide implementation activities under the permit, including: elimination of illicit discharges; stormwater management in development, planning, and construction; reduction of public agencies' impact on stormwater quality; requiring the dispersal of information and education to the general public about stormwater pollution; development of a stormwater quality monitoring program for tracking water quality status over time and for identifying watershed-specific pollutants in need of addressing; and preparation of an annual report detailing results of the monitoring program[33].

Standard of Significance

Implementation of the proposed DHSP would have a significant impact related to stormwater infrastructure facilities if it would: require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impacts and Mitigation Measures

Impact 3.11D Stormwater

Specific Plan

The City is highly developed with only three percent of the total DHSP area identified as vacant land, with some of that land already paved. Therefore, the net increase of impermeable surfaces or urban runoff into the existing drainage system will be minimal. Urban runoff would continue to be collected by the in-place stormwater collection system. In addition, the Specific Plan includes an Infrastructure Plan that identifies the drainage system for the DHSP area. Therefore, stormwater drainage impacts in the Plan area are considered ***less than significant***.

Transformative Projects

[33] *http://www.ladpw.org/wmd/watershed/dc/DCMP/docs/Section%202%20Background%20Information%20Report.pdf*

Same impact addressed in the Specific Plan area also applies for each Transformative Project. This impact is considered a ***less than significant***.

Mitigation Measure 3.11D

No mitigations are required.

Level of Impact After Implementation of Project Mitigation 3.11D

The impacts of the proposed Plan would be less than significant and no mitigation measures are required, therefore the residual impact of the DHSP would remain ***less than significant***.

Unavoidable Significant Adverse Impact(s)

No net unavoidable significant adverse impacts are anticipated.