

4.7 PUBLIC SERVICES

4.7.1 Introduction

This section describes the public services currently serving the planning area and evaluates the potential impacts of the Long Beach General Plan Land Use and Urban Design Elements Project (proposed project) on public services. This section is based on multiple data sources, including the Public Safety Element (1975) of the City of Long Beach (City) General Plan and the proposed General Plan Land Use Element (August 2016) and the Urban Design Element (August 2016) (Appendix F), as well as coordination with potentially affected public service providers. Specific references are identified within the subsection for each respective issue. This section addresses the following public services and utilities (service providers are noted in parenthesis):

- Fire Protection (City of Long Beach Fire Department [LBFD])
- Law Enforcement (City of Long Beach Police Department [LBPD])
- Public Schools (Long Beach Unified School District [LBUSD])
- Public Libraries (Long Beach Public Library [LBPL] System)
- Electricity (Southern California Edison [SCE])
- Natural Gas (City of Long Beach Gas and Oil Department)

4.7.2 Methodology

The effects of the proposed project are evaluated below to determine whether they would result in a significant adverse impact on the environment. The impact analysis presented in this section is based on information related to public services and utilities as these services relate to the implementation of the proposed project.

The discussion focuses on current levels of service provided to the project area and information on possible constraints or impacts to the facilities and/or services at General Plan buildout in the year 2040. Public service providers (e.g., LBFD, LBPD, LBUSD, and LBPL) were sent a questionnaire requesting information regarding current services provided to the planning area and information on possible constraints or impacts to their services associated with General Plan buildout (2040). The impact analyses are based on responses to the questionnaires, information obtained through subsequent phone conversations with public service representatives, and/or data obtained through websites. Correspondence with public service providers is included in Appendix D.

In addition to the questionnaires that were sent to LBFD, LBPD, LBUSD, and LBPL, demands for electricity and natural gas were modeled based on generation rates provided in the *South Coast Air Quality Management District (SCAQMD) California Environmental Quality Act (CEQA) Air Quality Handbook* (1993). These calculations were modeled by land use type and were calculated on a citywide basis to the existing baseline year of 2012 and General Plan buildout (2040). The net difference between the 2040 demand for utilities was then compared with the existing 2012 demand to generate the project-related increase in demand for electricity and natural gas. This increase was then compared with the projected capacity of applicable service providers to continue to service existing and new development in the City through the year 2040.

4.7.3 Existing Environmental Setting

Fire Protection. The LBFD is the primary authority in the City responsible for providing fire protection, medical, rescue, disaster response, public safety education, community service, and environmental emergency services. The LBFD is divided into the bureaus of Operations, Fire Prevention, Support Services, and Administration. Each bureau is further divided into sections that report to the Fire Chief. The LBFD has a total of 527 full time equivalent (FTE) uniformed and non-uniformed personnel.¹ The LBFD currently protects over 472,779² residents from its 24 fire stations located throughout the City (including two fire boat stations in the Port of Long Beach, one urban search and rescue service station, and one airport station), nine lifeguard facilities (41 seasonal stations), a training center, an emergency communications and operations center, and the LBFD headquarters.

The planning area includes the entire area within the City's jurisdictional limits (approximately 50 square miles). As such, all 24 stations, the nine lifeguard facilities, and the related training centers and headquarters would serve the planning area.

According to the City's Adopted Budget for Fiscal Year (FY) 2016, it is the stated goal of the LBFD to respond to structure fire calls within 6 minutes and 20 seconds or less.³ Response time is impacted by many factors, including increasing call volume and station location. Approximately 85 percent of the LBFD emergency responses are medical in nature. The LBFD goals for emergency response are to respond to 90 percent of emergency calls within 5 minutes or less. Currently, the average Citywide response time from dispatch to arrival is 4.7 minutes.⁴

The LBFD receives funding from the following four sources: (1) the City's General Fund (73 percent), (2) the Certified Unified Program Agency (CUPA) (1 percent), (3) the Tidelands Operations Fund (24 percent), and (4) the Police and Fire Public Safety Oil Production Act (Proposition H) (2 percent).⁵ The City's FY 2016 adopted budget for LBFD was \$98,181,760, which represents approximately 4 percent of the total budget for all departments (\$2.684 billion).

Police Protection. The LBPD provides local police protection services to the City of Long Beach. The LBPD consists of four separate bureaus:⁶ (1) the Investigation Bureau, (2) the Support Bureau, (3) the Patrol Bureau, and (4) the Administration Bureau. The Investigation Bureau consists of the

¹ City of Long Beach Fire Department. Website: <http://www.longbeach.gov/fire/> (accessed December 17, 2015).

² California Department of Finance. Report E-1 Population Estimates for Cities, Counties, and the State. Website: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php> (accessed December 21, 2015).

³ City of Long Beach Police Department. FY 2016 Adopted Budget. Website: <http://www.longbeach.gov/Finance/Media-Library/Documents/City-Budget-and-Finances/Budget/Budget-Documents/20-Police/> (accessed February 22, 2016).

⁴ City of Long Beach Fire Department, Department Performance Measures, 2014.

⁵ City of Long Beach Fire Department. FY 2016 Adopted Budget. Website: <http://www.longbeach.gov/Finance/Media-Library/Documents/City-Budget-and-Finances/Budget/Budget-Documents/12-Fire/> (accessed March 1, 2016).

⁶ City of Long Beach Police Department. Website: <http://www.longbeach.gov/police/> (accessed June 10, 2015).

Detective Division, the Gang and Violent Crimes Division, the Forensic Science Services Division, and the Criminal Intelligence Division. This Investigation Bureau is responsible for investigating crimes, analyzing evidence, apprehending suspects, preventing abuse, and promoting positive relationships between police officers and youth. The Support Bureau consists of the Security Services, Communications and Training, the Port Police, and the Jail Divisions. This Support Bureau is responsible for providing specialized security functions, providing enhanced emergency communication services, developing police recruits, and training police officers. The Patrol Bureau is the largest bureau as it encompasses over 40 percent of the LBPB budget and more than half of its personnel. This Patrol Bureau is responsible for providing community policing services. The Administrative Bureau consists of the Fiscal, Personnel, and Records and Technology Divisions. This Administrative Bureau is responsible for processing payments and billings; preparing the annual budget; providing personnel and payroll services; and managing department records, fleet vehicles, and technological activities.

LBPB strives to respond to Priority 1 Calls for Service (crime in progress/life-threatening situations) in 5 minutes or less, on average. Priority 2 Calls are non-emergency calls for crimes that have been committed with possible evidence available. The LBPB goal is to respond to Priority 2 Calls for service in 20 minutes or less, on average. Priority 3 calls are generally related to crimes with no evidence potential, but are required or desire to take a report of a crime. The LBPB goal is to respond to Priority 3 calls for service in 30 minutes or less, on average.¹ As such, Priority 1 Calls receive LBPB's fastest response time. The LBPB states that existing resources, including personnel, equipment, and facilities, are able to adequately serve the City under current conditions.²

The LBPB currently serves a population of approximately 472,779 residents (refer to Section 4.6, Population and Housing, for further detail). The LBPB FY 2016 budget accounts for approximately 806 sworn officers and 360 civilian FTEs. This provides a ratio of approximately 1.7 sworn officers and 0.76 civilian FTEs per 1,000 residents.³

The LBPB is also a part of the Los Angeles County Law Enforcement Mutual Aid Organization, which is overseen by the Los Angeles County Sheriff's Department. In the event that mutual aid is required, the Emergency Operations Bureau of the Los Angeles County Sheriff's Department is notified and, in turn, notification of other cities in predetermined response groups would occur.

The LBPB receives funding from the following four sources: (1) the City's General Fund (91 percent), (2) General Grants (2 percent), (3) the Tidelands Operations Fund (6 percent), and (4) the Police and Fire Public Safety Oil Production Act (Proposition H) (1 percent). The City's FY 2016 adopted budget for the LBPB was \$209,258,622, which represents approximately 8 percent of the total budget for all departments (\$2.684 billion).

¹ City of Long Beach Police Department. FY 2016 Adopted Budget. Website: <http://www.longbeach.gov/Finance/Media-Library/Documents/City-Budget-and-Finances/Budget/Budget-Documents/20-Police/> (accessed February 22, 2016).

² City of Long Beach. Midtown Specific Plan EIR. 4.7 Public Services. Website: <http://www.lbds.info/civica/filebank/blobload.asp?BlobID=5634> (accessed February 22, 2016).

³ Long Beach Police Department. FY 2016 Adopted Budget. Website: <http://www.longbeach.gov/Finance/Media-Library/Documents/City-Budget-and-Finances/Budget/Budget-Documents/20-Police/> (accessed February 22, 2016).

Public Schools. The provision of education and school facilities in the City is the responsibility of the LBUSD, which is currently the third largest school district in the State and serves approximately 80,000 students in 84 schools in the Cities of Long Beach, Lakewood, Signal Hill, and Avalon (on Catalina Island).¹ For the 2014–2015 school year, the LBUSD accommodated a total of 79,709 students in its elementary, middle, and high schools, of which a total of 71,861 students attended within the City of Long Beach. A breakdown of the most current enrollment and capacities available within the LBUSD are shown in Tables 4.7.A and 4.7.B, respectively.

Table 4.7.A: LBUSD Student Enrollment (2014–2015)

School Level	Existing Enrollment in LBUSD	Existing Enrollment in Schools outside the City of Long Beach	Existing Enrollment in Schools within the City of Long Beach
Elementary Schools	42,581	2,963	39,618
Middle Schools	11,758	922	10,836
High Schools	25,370	3,963	21,407
Total	79,709	7,848	71,861

Source: Ed Data Education Data Partnership. Website: <http://www.ed-data.org/district/Los-Angeles/Long-Beach-Unified> (accessed February 22, 2016).
 LBUSD = Long Beach Unified School District

Table 4.7.B: LBUSD Capacity and Student Enrollment (2014–2015)

School Level	Facilities Capacity	Existing Enrollment in LBUSD	Excess/ (Shortage) Capacity
Elementary Schools	44,779	42,581	2,198
Middle Schools	13,776	11,758	2,018
High Schools	22,950	25,370	(2,420)
Total	81,505	79,709	1,796

Source: Long Beach Unified School District. *School Facilities Needs Analysis*, Table 6 (May 2015).
 LBUSD = Long Beach Unified School District

Collectively, the LBUSD’s school facilities in the 2014–2015 school year had a capacity of 81,505 seats per Section 17071.25 of the Education Code.² Of these 81,505 seats, 44,779 were at the elementary school level, 13,776 were at the middle school level, and 22,950 were at the high school level. These capacities included seats from all new school facility construction projects funded by the State. As shown in Table 4.7.B, LBUSD Capacity and Student Enrollment (2014–2015) student enrollment exceeded the facilities capacity at the high school level, while the facilities capacity exceeded student enrollment at the elementary school and middle school levels in the 2014–2015 school year.³

¹ Long Beach Unified School District (LBUSD). Website: <http://www.lbschools.net/District/> (accessed June 10, 2015).

² Section 17071.25 of the California Education Code outlines a four-part methodology for calculating the total school building capacity in any given school district. For further details related to this methodology, see website: <http://law.onecle.com/california/education/17071.25.html>.

³ LBUSD. *School Facilities Needs Analysis*, Table 6 (May 2015).

The LBUSD overall budget of \$1.01 billion consists of the combined expenditure plans for ten separate funds. The General Fund accounts for the cost of direct institution and support services to LBUSD’s elementary, middle, and high school students. Most of the LBUSD revenue comes from the State through the new Local Control Funding Formula (LCFF).¹

Public Libraries. The LBPL system provides library services to the City and includes 12 branch locations throughout the City.² The Long Beach Main Library is located in the southern portion of the City at 101 Pacific Avenue, in the Civic Center. In total, the LBPL system has approximately 220,265 square feet (sf) of library facilities, approximately 806,988 library materials (includes hardcopies and online resources), and approximately 227 computers available for public use.³ In FY 2015, the City’s Library Services employed 119.33 FTE personnel.⁴ Table 4.7.C, LBPL Statistics, details specific information such as library size, population served, and specific collection items for each library within the LBPL system.

Table 4.7.C: LBPL Statistics

Library	Year Built	Council	Library	Schools Served	Hours Open per Week	Items Circulated Annually	Reference Questions Answered Annually	Staff FTE	No. of Volumes	Square Feet
Main	1977	2	491,564	6	35	467,920	241,895	54.85	320,455	135,000
Alamitos	1929	2	53,536	3	34	51,409	8,305	4.19	34,303	7,475
Bach	1958	5	32,054	16	34	105,706	20,264	4.02	40,832	7,000
Bay Shore	1959	3	26,693	4	38	96,397	30,942	4.02	41,902	6,900
Brewitt	1948	4	32,577	8	34	60,798	10,873	4.19	31,351	5,225
Burnett	1969	6	47,802	9	38	49,691	34,917	5.04	50,043	7,500
Dana	1958	7	41,791	8	34	128,043	16,822	4.36	45,146	6,800
El Dorado	1970	5	20,055	11	34	170,890	20,975	5.92	56,836	8,160
Harte	1957	7	35,879	9	34	70,696	25,625	5.26	42,261	6,500
Los Altos	1957	4	39,296	11	34	113,132	9,370	4.09	43,587	6,750
Mark Twain	2007	6	57,433	5	34	147,111	19,416	8.94	63,837	16,000
North	1951	8	99,144	13	38	89,604	15,506	7.11	32,576	6,800

Source: Long Beach Public Library. Facts and Figures. Website: http://www.lbpl.org/info/about/facts_and_figures.asp (accessed February 23, 2016).

FTE = full time equivalent

LBPL = Long Beach Public Library

¹ LBUSD 2015–2016 Adopted Budget. Website: http://www.lbschools.net/Asset/Files/Business_Services/Financial/Adopted%20Budget%202015-16%20Summary%20Book.pdf (accessed March 2, 2016).

² Long Beach Public Library (LBPL). Website: Library Locations, http://www.lbpl.org/locations/library_locations.asp, (accessed December 21, 2015).

³ LBPL. 2016. Manager of Main Library Services, Susan Jones. Email Correspondence. January 19, 2016.

⁴ LBPL. FY 2016 Budget. Website: <http://www.longbeach.gov/Finance/Media-Library/Documents/City-Budget-and-Finances/Budget/Budget-Documents/16-Library/>(accessed December 24, 2015).

Libraries in the LBPL system are closed on Mondays and are open from 12:00 p.m. to 7:00 p.m. (Main Library, from 12:00 p.m. to 8:00 p.m.) on Tuesdays, from 12:00 p.m. to 6:00 p.m. on Wednesdays, from 12:00 p.m. to 7:00 p.m. on Thursdays, from 10:00 a.m. to 5:00 p.m. on Fridays and Saturdays, and from 12:00 p.m. to 4:00 p.m. on Sundays (Bay Shore Neighborhood Library only).¹

While the City has not formally adopted a service standard of library space per capita, the City did establish a target of 0.45 sf per capita in its budget for FY 2007.² Using this standard and 472,779 as the estimated 2015 population, the LBPL currently provides approximately 0.47 sf per capita, thereby exceeding the standard of library space by 0.02 sf per capita.

The LBPL receives funding from the following three sources: (1) the City's General Fund (96 percent), (2) General Grants (3 percent), and (3) the Civic Center (1 percent). The City's FY 2016 adopted budget for LBPL was \$13,343,257, which for LBPL represents about 0.5 percent of the total budget for all departments (\$2.684 billion).

Energy. Appendix F, Energy Conservation, of the *State California Environmental Quality Act (CEQA) Guidelines* requires that Environmental Impact Reports (EIRs) include a discussion of potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The discussion below provides information pertaining to existing energy supplies and energy use patterns in the region and locality.

Electricity. The planning area is within the service territory of SCE serviced through a grid of transmission lines, distribution lines, and related facilities. SCE, an independently owned utility, provides electrical service to 15 million people in 50,000 square miles across central, coastal, and southern California, including the City of Long Beach. Currently, SCE delivers electrical power to these areas through 12,782 miles of transmission lines, 90,401 miles of distribution lines, 1,433,336 electric poles, 720,800 distribution transformers, and 2,959 substation transformers.³

In December 2014, the California Energy Commission (CEC) published preliminary California Energy Demands for 2015 through 2025.⁴ According to the CEC, the electricity consumption in the SCE service area was estimated to be 100,348 gigawatt hours (GWh) in the high-demand

¹ LBPL. Library Hours. Website: http://www.lbpl.org/locations/library_hours.asp (accessed December 21, 2015).

² FY 2007 is the most current year for which target library performance standards have been established. As noted above, these standards have not been formally adopted by the City.

³ Southern California Edison, Powering Southern California for 125+ Years, https://www.sce.com/wps/portal/home/about-us/who-we-are!/ut/p/b1/hc_BDkNAFAXQb_ED3msH1eUoYSzaKglm0yA6lWJEpfP7JbGvt1Nzk3uAw4Z8L74NKKYGtkX7ZK5dd_ZPg1YjMxPDBOZsz8Q32Ek8cwZ5DPAH0fxXz8FvkVcw1jB0UcvCC8LiAgyEuE5ppQgWivY2BACF60s53_SE_DKbV-DWpbTviS2AD7Wj3qsR_0p3xNkSildSCnaWq9kB0OXYXPtbjnVtC-pQMWf/dl4/d5/L2dBISEvZ0FBIS9nQSEh/, (accessed December 22, 2015).

⁴ California Energy Commission (CEC), 2015–2015 Electricity Demand by Planning Area. <http://www.energy.ca.gov/2014publications/CEC-200-2014-009/CEC-200-2014-009-SD.pdf>, (accessed June 12, 2015).

scenario in 2016. According to the CEC, electricity consumption in the SCE service area is projected to reach between 119,741 GWh in the high-demand scenario by 2025. In addition, the CEC estimates that net peak demand and net energy load within SCE's service territory will continue to grow annually by up to 1.58 percent from 2014 to 2025.¹

Based on electricity usage rates outlined in the 1993 CEQA Air Quality Handbook², the City of Long Beach had an estimated annual electricity demand of 1,634.20 GWh in 2012.

Natural Gas. The City of Long Beach Municipal Gas and Oil Department (LBGO) provides natural gas services to residents and businesses of Long Beach and Signal Hill and portions of surrounding communities, including the cities of Bellflower, Compton, Lakewood, Los Alamitos, Paramount, and Seal Beach. Currently, the LBGO is the fifth largest municipal gas utility in the nation, serving approximately 500,000 residents³ and businesses through over 1,900 miles of LBGO pipelines.⁴

In addition to providing a summary of the existing and historic natural gas demands, the 2014 California Gas Report also provides projected annual gas supplies for future years through the year 2035. According to the 2014 California Gas Report, natural gas demand in LBGO's service area was 8,906 million cubic feet (MMcf) (8.9 billion cubic feet [bcf]) in 2012 and the future annual demand for natural gas is projected to reach 9,605 MMcf (9.6 bcf) in 2035.⁵

4.7.4 Regulatory Setting

Federal Policies and Regulations. At the federal level, the United States Department of Transportation (DOT), the United States Department of Energy (DOE), and the United States Environmental Protection Agency (EPA) are the three federal agencies with substantial influence over energy policies and programs. These agencies influence and regulate transportation energy consumption through the establishment and enforcement of fuel economy standards for automobiles and light trucks, through energy-related research and development projects, and through transportation infrastructure improvements.

Federal Energy Policy and Conservation Act. In 1975 the United States Congress adopted the Federal Energy Policy and Conservation Act as a means to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. The primary goals of this Act are to increase energy

¹ California Energy Commission (CEC), 2015-2015 Electricity Demand by Planning Area. <http://www.energy.ca.gov/2014publications/CEC-200-2014-009/CEC-200-2014-009-SD.pdf>, (accessed June 12, 2015).

² SCAQMD, CEQA Air Quality Handbook, Table A-9-11-A, 1993.

³ Long Beach Municipal Gas and Oil Department, <http://www.longbeach.gov/lbgo/>, (accessed December 22, 2015).

⁴ Fiscal Year 2015 Adopted Budget, Long Beach Gas & Oil, <http://www.longbeach.gov/finance/media-library/documents/city-budget-and-finances/budget/budget-documents/fy-15-adopted-budget-webpage/long-beach-gas-and-oil/>, (accessed December 22, 2015).

⁵ California Gas and Electric Utilities. 2014 California Gas Report. <http://www.socalgas.com/regulatory/documents/cgr/2014-cgr.pdf> (accessed June 12, 2015).

production and supply, reduce energy demand, provide energy-efficient alternatives, and grant additional authority to the executive branch to respond to changes in the nation's energy supply. In order to meet these goals, this Act established a reserve of petroleum, established energy conservation standards for consumer products, and established the first fuel economy standards for on-road motor vehicles. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon (mpg). Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. While compliance with federal fuel economy standards is not determined for each individual vehicle model, compliance is determined for each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by U.S. EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The U.S. EPA calculates a CAFE value for each manufacturer, based on fuel economy test results and vehicle sales. On the basis of the information from the CAFE program, the U.S. DOT is authorized to assess penalties for noncompliance. Consequently, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

International Fire Code. The International Fire Code (IFC) regulates minimum fire safety requirements for new and existing buildings, facilities, storage, and processes. The IFC includes general and specialized technical fire and life safety regulations addressing fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, use and storage of hazardous materials, protection of emergency responders, industrial processes, and many other topics.

State Policies and Regulations.

California Health and Safety Code. Sections 13000 et seq. of the California Health and Safety Code include fire regulations for building standards (also contained in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Fire Code. The California Fire Code (CFC; California Code of Regulations Title 24, Part 9) sets forth requirements including emergency access, emergency egress routes, interior and exterior design and materials, fire safety features including sprinklers, and hazardous materials. The CFC is issued on a 3-year cycle; the 2013 Edition (the most recent version, which took effect January 1, 2014) of the CFC is adopted and incorporated by reference in Chapter 18.48 (Fire Code) of the City's Municipal Code.

California State Assembly Bill 2926: School Facilities Act of 1986. To assist in providing school facilities to serve students generated by new development, Assembly Bill (AB) 2926 was enacted in 1986 and authorizes a levy of impact fees on new residential and commercial/industrial development. The bill was expanded and revised in 1987 through the passage of AB 1600, which

added Sections 66000 et seq. to the Government Code. Under this statute, payment of impact fees by developers serves as California Environmental Quality Act (CEQA) mitigation to satisfy the impact of development on school facilities.

California Senate Bill 50. Senate Bill (SB) 50, passed in 1998, provides a comprehensive school facilities financing and reform program and enables a statewide bond issue to be placed on the ballot. Under the provisions of SB 50, school districts are authorized to collect fees to offset the costs associated with increasing school capacity as a result of development and related population increases. The funding goes toward acquiring school sites, constructing new school facilities, and modernizing existing school facilities. SB 50 establishes a process for determining fee amounts charged to developers to mitigate the development impacts on school districts from increased enrollment. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation.”

Under this legislation, there are three levels of developer fees that may be imposed upon new development by the governing school district. Level I fees are assessed based upon the proposed square footage of residential, commercial/industrial, and/or parking structure uses. Level II fees require the developer to provide one-half of the cost of accommodating students in new schools, and the State provides the remaining half. To qualify for Level II fees, the board of the governing school district must adopt a School Facilities Needs Analysis and meet other prerequisites in accordance with Section 65995.6 of the California Government Code. Level III fees apply if the State runs out of bond funds, allowing the governing school district to impose 100 percent of the cost of the school facility or mitigation, minus any local dedicated school monies, on the developer.

Title 24 of the California Code of Regulations. The California Energy Code (Title 24, Part 6 of the California Code of Regulations, California’s Energy Efficiency Standards for Residential and Nonresidential Buildings), provides energy conservation standards for the new construction and rehabilitation of residential and nonresidential buildings and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings provided these standards meet or exceed Title 24 Building Code requirements. Title 24 regulates building energy consumption for heating, cooling, ventilation, water heating, and lighting with regard to both electricity and natural gas. These standards are typically updated every 3 years by the CEC. The California Green Building Standards Code (CALGreen Code) was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures take effect on January 1, 2017. Compliance with Title 24 energy efficiency requirements can be achieved through following a prescriptive approach outlined in the standards or following a performance approach using computer modeling. The prescriptive approach offers relatively little design flexibility but is easy to use, while the performance approach allows design flexibility that can be used to find the most cost-effective solutions but that requires multiple calculations.

Appendix F of the *State CEQA Guidelines*. Appendix F, Energy Conservation, requires that EIRs include a discussion of the potential energy impacts of a proposed project, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (refer to Public Resources Code 21100[b][3]). In addition, Appendix F seeks inclusion of information in the EIR addressing the following:

- Measures to reduce wasteful, inefficient, and unnecessary consumption of energy during construction, operation, and maintenance of the project;
- The siting and orientation of buildings and structures to minimize energy consumption, including transportation energy;
- Measures for reducing peak energy demand;
- Incorporation of alternative fuels (particularly renewable ones) or energy systems; and
- Incorporation of recycling for nonrenewable resources.

Appendix F of the *State CEQA Guidelines* is an advisory document that assists Lead Agencies in determining whether a project would result in impacts related to energy.

Local Policies and Regulations.

City of Long Beach Municipal Code. The following provisions from the City's Municipal Code focus on public services impacts associated with new development projects and are relevant to the proposed project:

Chapter 18.22 (Police Facilities Impact Fees). This chapter sets forth fees that are imposed on residential and nonresidential development for the purpose of assuring that impacts created by new development be offset by payment of its fair share of costs required to support needed police facilities and related costs necessary to accommodate such development.

Chapter 18.23 (Fire Facilities Impact Fees). This chapter sets forth the fees that are imposed on residential and nonresidential development for the purpose of assuring that impacts created by new development be offset by payment of its fair share of the costs required to support needed fire facilities and related costs necessary to accommodate such development. The funds are to be utilized for payment of the actual or estimated costs of fire facilities, apparatuses, and equipment related to new residential and nonresidential construction.

Chapter 18.48 (Fire Code). This chapter formally adopts the 2013 Edition of the California Fire Code (CFC), excluding sections, chapters or appendices pursuant to Section 18.48.040. The CFC sets forth requirements including emergency access, emergency egress routes, interior and exterior design and materials, fire safety features including sprinklers, and hazardous materials.

City of Long Beach Proposition H. The Police and Fire Public Safety Oil Production Act Fund, Proposition H, was established to provide dedicated funds for police and fire services by assessing a special production tax on oil producers in Long Beach. The special tax proceeds support police and fire responses to public safety needs. As of June 1, 2015, the tax rate was \$0.29 per barrel.¹

City of Long Beach General Plan. The following public safety goals and recommendations are included in the Public Safety Element of the City General Plan (1975) and are applicable to the proposed project as they relate to the police and fire protection required for existing and proposed land uses. The following goals and recommendations are applicable to the proposed project.

Development Goal 1. Promote the redevelopment of areas which may present safety problems.

Development Goal 2. Utilize safety considerations as a means of encouraging and enhancing desired land use patterns.

Development Goal 5. Use physical planning as a means of achieving greater degrees of protection from safety hazards.

Development Goal 6. Encourage transportation systems, utilities, industries, and similar uses to locate and operate in a manner consistent with public safety goals.

Development Goal 7. Assure continued safe accessibility to all urban land uses throughout the City.

Development Goal 9. Encourage development that would augment efforts of other safety-related Departments of the City (i.e., design for adequate access for firefighting equipment and police surveillance).

Development Goal 10. Strive to encourage urbanizations patterns which preserve and/or create greater safety for residents and visitors.

Protection Goal 1. Use safety precautions as one means of preventing blight and deterioration.

¹ City of Long Beach Auditor's Office. 2016. Proposition H Police and Fire Public Safety Oil Production Act. January 29.

Protection Goal 10. Provide the maximum feasible level of public safety protection services.

Sustainable City Action Plan. The City adopted the Sustainable City Action Plan on February 2, 2010 with the purpose of moving the City towards becoming a more sustainable City. Sustainability is defined in this plan as maximizing individual benefits and minimizing negative environmental impacts to ensure the long-term health of the environment for the enjoyment and use of current and future generations. The Sustainable City Action Plan includes initiatives, goals, and actions that are meant to guide City decision-makers in striving towards achieving a sustainable City. The following goals, initiatives, and actions are applicable to the proposed project:

Sustainability Goal 2: Reduce electricity use in City operations by 25% by 2020.

Sustainability Goal 3: Reduce natural gas use in City operations by 15% by 2020.

Sustainability Goal 4: Facilitate the development of at least 2 Megawatts of solar energy on city facilities by 2020.

Sustainability Goal 5: Reduce community electricity use by 15% by 2020.

Sustainability Goal 6: Reduce community natural gas use by 10% by 2020.

Sustainability Goal 7: Facilitate the development of at least 8 Megawatts of solar energy within the community (private rooftops) by 2020.

Energy Initiative 2: Ensure all of the City of Long Beach's Operational needs are met through energy efficiency, conservation and renewable energy sources.

Energy Initiative 3: Reduce electricity and natural gas consumption of the Long Beach community.

Action 1: Increase energy efficiency in City facilities through ongoing energy audits, retrofits, weatherization and preventative maintenance.

Action 4: Encourage the use of energy efficient products including efficient lighting, energy monitoring systems, cool and green roofs, insulation and efficient HVAC systems.

Action 9: Implement energy efficiency and conservation measures.

4.7.5 Proposed Land Use Element and Urban Design Element Goals, Strategies, and Policies

The following proposed Land Use Element (LUE) and Urban Design Element (UDE) strategies, policies, and implementation measures are applicable to the analysis of public services:

Land Use Element.

LU-M-2: Update the Zoning Regulations to include urban form standards that address the interface with street frontage, appropriate massing and compatibility standards based on context and location. Ensure the regulations allow a mix of uses and accommodate transit, walking, and biking facilities.

LU-M-55: Implement a City green business program that incorporates goals and strategies for waste reduction, energy efficiency, water conservation, green purchasing and similar strategies.

LU-M-66: Provide coordination between long-range land use planning and infrastructure improvements to ensure there are adequate infrastructure and community services to meet existing and future developments.

Urban Design Element.

Policy UD 1-1: Support the goals, strategies, and policies of the General Plan Elements.

Policy UD 5-3: Provide a range of passive and active areas that promote safe, healthy places for exercise, recreation, family gatherings, and respite within walking distance of all neighborhoods.

Strategy No. 6: Improve public infrastructure to serve new development, established neighborhoods, commercial centers, and industry and regional-serving facilities within areas of change and future growth areas.

Policy UD 7-1: Encourage public amenities and spaces in neighborhoods that allow for human contact, social activities, and community involvement to create an “eyes on the street” environment.

4.7.6 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact on public services providers if it would:

Threshold 4.7.1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *fire protection*;

Threshold 4.7.2: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable

service ratios, response times, or other performance objectives for *police protection*;

Threshold 4.7.3: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *public schools*;

Threshold 4.7.4: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *parks*; or

Threshold 4.7.5: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *any other public facilities*.

Approval of the proposed project is considered a policy/planning action for the entire City and does not include any physical improvements. Therefore, the Initial Study/Notice of Preparation (IS/NOP) (Appendix A) determined that the proposed project would result in less than significant impacts related to potential adverse physical impacts for parks (Threshold 4.7.4). As a result, this threshold is not analyzed further in this Draft EIR.

4.7.7 Standard Conditions and Project Design Features

The proposed project would not be required to adhere to any standard conditions and would not include any project design features related to public services.

4.7.8 Project Impacts

Threshold 4.7.1: **Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *fire protection*?**

Less than Significant Impact. The proposed project does not include any physical improvements, but allows future development that is anticipated to create an increase in the typical range of fire protection service calls within the City. As noted in Section 4.6, Population and Housing, implementation of the proposed project could result in the development of approximately 11,744 dwelling units and the addition of approximately 51,230 persons. The estimated City population at General Plan buildout (2040) would be approximately 484,485. As a result of the increased population, overall demands for fire protection services and emergency services in the City would also increase.

Although current fire protection services meet the existing demand,¹ additional LBFD resources, including staffing, would be required to provide fire protection for new residents, workers, and structures. The City's costs to maintain facilities and equipment as well as train and equip personnel would also increase. In addition, the redistribution and increase of the population and traffic density into areas proposed for growth, such as the Downtown area, could necessitate the reorganization of fire protection resources. The costs of additional personnel and materials are anticipated to be offset through the increased revenues and fees, such as property taxes, generated by future development. Additionally, future development allowed under the proposed project would occur within the limits of the City, already served by the LBFD; therefore, the proposed project would not result in an expansion of the LBFD service area.

Future projects would be reviewed by the City of Long Beach on a project-by-project basis and would need to comply with any requirements in effect when the review is conducted. Prior to the issuance of building permits, future project applicants would be required to pay the adopted fire facilities impact fees. Per Chapter 18.23 (Fire Facilities Impact Fees) of the City's Municipal Code, the LBFD receives funding from Fire Facilities Impact fees, which are charged on all new residential and nonresidential development. These fees are calculated per dwelling unit or square footage, as detailed in Table 4.7.D. Fire Facilities Impact Fees (2015). The funds obtained from the fire facilities impact fees are required to be used to fund costs of providing additional fire services necessary to accommodate such development. The LBFD would also continue to be supported by Proposition H revenue, a per barrel tax on all oil producers in Long Beach; the City's General Fund; the City's Tidelands operation revenue; and other revenue sources such as paramedic fees, fire building plan and building check fees, various state and federal grants, and private donations. The additional personnel, building, and material costs for fire services in the City required due to increased demand from future development accommodated by the proposed project would be offset through these revenue sources. Therefore, sufficient revenue would be available for necessary improvements to provide for adequate fire facilities, equipment, and personnel upon buildout of the General Plan. Upon implementation of the proposed project, the LBFD would maintain appropriate firefighter staffing to ensure compliance with adopted standards for response time and coverage.

¹ City of Long Beach. Midtown Specific Plan EIR. 4.7 Public Services. Website: <http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=5634> (accessed February 22, 2016).

Table 4.7.D: Fire Facilities Impact Fees (2015)

Land Use Type	Fee
Residential	
Single-family	\$496/dwelling
Multi-family	\$378/unit
Non-Residential:	
Commercial	\$0.267/sf
Office	\$0.325/sf
Industrial	\$0.132/sf

Source: City of Long Beach Developer Fees (updated September 30, 2015), <http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=2506> (accessed January 14, 2016).
 sf = square feet

All future projects allowed under the proposed LUE and UDE would also be required to undergo project-specific environmental review and comply with all applicable building code requirements requiring fire protection devices, such as sprinklers, alarms per Municipal Code Section 18.48.010 – (Adoption of the 2013 California Fire Code), adequately spaced fire hydrants, and fire access lanes. Adherence to applicable codes would ensure adequate facilities to provide for fire protection services meeting or exceeding established performance objectives and ensure that there is adequate emergency access on site. In addition, if construction impacts of a development project necessitate the closure of roadways that serve a particular project, the applicant would be required to coordinate road closures and emergency access with LBFD to ensure an adequate level of fire protection services at the adopted performance objectives.

As described in the proposed LUE, fire and police stations are two of the preferred land uses within the designated Founding and Contemporary Neighborhoods, Multi-Family Residential – Low and Moderate, Neighborhood-Serving Centers and Corridors – Low and Moderate, Transit-Oriented Development – Low and Moderate, and Industrial PlaceTypes. While there are no new fire facilities planned at this time, the proposed PlaceType designations would permit the future development and operation of new stations. The proposed project permits development of new stations, proposes no physical improvements, and all future projects would be required to assess project impacts on fire protection services. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection. Project impacts related to fire protection would be less than significant, and no mitigation is required.

Threshold 4.7.2: **Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *police protection*?**

Less than Significant Impact. The proposed project does not include any physical improvements, but allows future development that is anticipated to create an increase in the typical range of police

service calls within the City. As previously identified, implementation of the proposed project could result in the development of approximately 11,744 dwelling units and the addition of approximately 51,230 persons. The estimated City population at General Plan buildout (2040) would be 484,485. As a result of the increased population and employment in the City, the number of police service calls, patrols, and staff necessary to service the City would also increase.

To serve future growth, new and/or additional police resources would be needed to prevent an impact to service ratios. The City’s costs to maintain facilities and equipment as well as train and equip personnel would also increase. In addition, the redistribution and increase of the population and traffic density into areas proposed for growth, such as the Downtown area, could necessitate the reorganization of police resources. The costs of additional personnel and materials are anticipated to be offset through the increased revenues and fees, such as property taxes, generated by future development.

Future projects would be reviewed by the City of Long Beach on a project-by-project basis and would need to comply with any requirements in effect when the review is conducted. Prior to the issuance of building permits, future project applicants would be required to pay the adopted police facilities impact fees. Per Chapter 18.22 (Police Facilities Impact Fees) of the City’s Municipal Code, the LBPD receives funding from police facilities impact fees which are charged on all new residential and non-residential development. These fees are calculated per dwelling unit or square footage, as detailed in Table 4.7.E, Police Facilities Impact Fees (2015). The funds obtained from the police facilities impact fees are required to be used to fund costs of providing additional police services attributed to new development, including the acquisition, construction, and furnishing of new law enforcement facilities, the purchasing of equipment and vehicles, and the funding of a master plan to identical capital facilities to serve the LBPD. In addition, the LBPD would continue to be supported by Proposition H revenue, a per barrel tax on all oil producers in Long Beach; the City’s Tidelands operation revenue; and other revenue sources such as general grants (e.g., federal, State, and County grants).¹ The additional personnel, building, and materials costs for police services in the City required due to increased demand from future development accommodated by the proposed project would be offset through these revenue sources.

Table 4.7.E: Police Facilities Impact Fees (2015)

Land Use Type	Fee
Residential	
Single-family	\$703/dwelling
Multi-family	\$537/unit
Non-Residential	
Commercial	\$0.442/sf
Office	\$0.538/sf
Industrial	\$0.218/sf

Source: City of Long Beach Developer Fees (effective September 30, 2015). Website: <http://www.lbds.info/civica/filebank/blobload.asp?BlobID=2506> (accessed January 14, 2016).
 sf = square feet

¹ City of Long Beach Auditor’s Office. 2016. Proposition H Police and Fire Public Safety Oil Production Act. January 29.

By following this process, sufficient revenue would be available for necessary service improvements to provide for adequate police facilities, equipment, and personnel upon buildout of the General Plan. To maintain the existing ratio of sworn officers and civilian FTE employees per capita— 1.7 and 0.76 per 1,000 residents, respectively—buildout of the General Plan would require the hiring of approximately 18 new sworn officers and 8 new civilian FTE employees.¹ However, impacts to police services are anticipated to be funded by an increase in tax revenues over an extended period of time. New development over time would increase contributions to the General Fund through tax revenues by which the fund would be expected to grow in rough proportion to any increase in residential dwelling units and/or nonresidential space. Additional police personnel and resources would be provided through the annual budget review process. Annually, the LBPD assesses and allocates its budget to ensure that adequate levels of service are maintained throughout the City. Additional resources and personnel funded by an increase in tax revenue, along with collection of Police Facilities Impact Fees, would maintain the level of service needed to support the increase in growth.

As previously stated, police and fire stations are two of the preferred land uses within the following designated PlaceTypes: Founding and Contemporary Neighborhood, Multi-Family Residential – Low and Moderate, Neighborhood-Serving Centers and Corridors–Low and Moderate, Transit-Oriented Development – Low and Moderate, and Industrial. While there are no new police facilities planned at this time, the proposed PlaceType designations would permit the future development and operation of new stations. The proposed project does not include physical improvements, and future projects would be required to assess project impacts on police services. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities in order to maintain acceptable service ratios, response times, or other performance objectives for police protection. Project impacts related to police protection would be less than significant.

Threshold 4.7.3: **Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for public schools?**

Less than Significant Impact. Implementation of the proposed project would allow future development that would enable the generation of school-aged children within the LBUSD service area. General Plan buildout could include the addition of up to 11,744 dwelling units.² Table 3.C, in Chapter 3.0, Project Description, provides the number of dwelling units facilitated by project implementation, subdivided into single-family and multi-family housing types. Of the additional 11,744 dwelling units, 664 would be single-family and 11,080 would be multi-family residential units.

¹ There are currently 806 sworn officers and 306 civilian officers. The City’s population is anticipated to be 484,485 in 2040. Using a ratio of 1.7 sworn officers per 1,000 persons and 0.76 civilian officers per 1,000 persons, the City would need approximately 824 and 368 sworn and civilian officers, respectively, at General Plan buildout.

² Refer to Section 4.6, Population and Housing, of this Draft EIR.

The addition of these new housing units within the City has the potential to generate student growth in the LBUSD. This growth may strain existing and/or planned school facilities. While the proposed project does not include the approval of any specific development, student generation was estimated in order to determine whether the proposed project would impact the LBUSD.

The LBUSD uses generation factors to determine the number of students per dwelling unit, and uses different student generation rates for each school level for single-family detached, single-family attached, and multifamily dwelling unit types.¹ Calculations for all 664 single-family residential units associated with General Plan buildout utilized the single-family detached student generation rates, as opposed to the lower single-family attached generation rates, in order to provide a conservative, worst-case scenario estimate. As illustrated by Tables 4.7.F and 4.7.G, General Plan buildout of the 644 single-family and 11,080 multi-family dwelling units in 2040 would generate approximately 330 and 3,645 additional students, respectively (3,975 in total), in the City. The number of additional students generated per dwelling type is also estimated by school level, as shown in Tables 4.7.F and 4.7.G below.

Table 4.7.F: New Students Generated by the Proposed Project-Single-Family Units¹

School Level	Projected Buildout Single-family Units	Generation Rate (Single-family detached units) ²	LBUSD Students added by Proposed Project (2040)
Elementary Schools	664	0.2754	183
Middle Schools	664	0.0773	51
High Schools	664	0.1449	96
Total	-	-	330

¹ Single family Detached Generation Rate used.

² Long Beach Unified School District. *School Facilities Needs Analysis* (May 14, 2015).

LBUSD = Long Beach Unified School District

Table 4.7.G: New Students Generated by the Proposed Project-Multi-family Units

School Level	Projected Buildout Multi-family Units	Generation Rate (Multi-Family) ¹	LBUSD Students added by Proposed Project (2040)
Elementary Schools	11,080	0.1812	2,008
Middle Schools	11,080	0.0470	521
High Schools	11,080	0.1007	1,116
Total	-	-	3,645

¹ Long Beach Unified School District. *School Facilities Needs Analysis* (May 14, 2015).

LBUSD = Long Beach Unified School District

¹ LBUSD. 2015. *School Facilities Needs Analysis*. May 14.

Table 4.7.H displays the existing LBUSD (2014–2015) facilities capacity as compared to the projected student enrollment at General Plan buildout (2040). As shown in Table 4.7.H, student enrollment currently exceeds the LBUSD facilities capacity at the high school level, while the facilities capacity exceeds student enrollment at the elementary school and middle school levels in the 2014–2015 school year. With General Plan build out, elementary and middle school enrollment in LBUSD would continue to be within the 2014–2015 LBUSD facilities capacity, but high school and total estimated enrollment in LBUSD in 2040 would exceed the LBUSD current facilities capacity.

Table 4.7.H: LBUSD Current Facilities Capacity (2014–2015) and Projected Demand at 2040 General Plan Buildout

School Level	2014–2015 LBUSD Facilities Capacity ¹	2014–2015 LBUSD Student Enrollment ¹	New LBUSD Students added by Proposed Project (2040)	Total Enrollment (2040)	Excess/ (Shortage) Capacity
Elementary Schools	44,779	42,581	2,191	44,772	7
Middle Schools	13,776	11,758	572	12,330	1,446
High Schools	22,950	25,370	1,212	26,582	(3,632)
Total	81,505	79,709	3,975	83,684	(2,179)

Source: Long Beach Unified School District and LSA Associates, Inc.

¹ Long Beach Unified School District. *School Facilities Needs Analysis* (May 14, 2015).

LBUSD = Long Beach Unified School District

As noted above, all future development projects in the City would be required to pay school developer fees to LBUSD for the operation, maintenance, and development of schools to accommodate future student enrollment. Table 4.7.I displays the current (2015) developer fees adopted by LBUSD. These fees are calculated per square footage of residential, commercial, and industrial development. Project applicants would be required to pay the adopted school developer fees to LBUSD prior to the issuance of a building permit.

Table 4.7.I : LBUSD Current School Developer Fees (2015)

Type of Development	Fee Type	Fee per SF
Residential -Level I (Residential additions over 500 sf)	Statutory school fees	\$3.36
Residential-Level II (New Residential Construction and Residential Redevelopment)	Alternative school fees	\$4.32
Industrial or Commercial-Level I	Statutory school fees	\$0.54

Source: Long Beach Unified School District. *Developer Fees: Guide to School Facility Fees* (revised July 21, 2015). Website: <http://www.lbds.info/civica/filebank/blobdownload.asp?BlobID=2506> (accessed January 14, 2016).

LBUSD = Long Beach Unified School District

sf = square feet

If student growth generated by General Plan buildout (2040) exceeds the estimates identified above, the acquisition, modernization, or modification of school sites to accommodate additional facilities could be required. The LBUSD reserves its right to negotiate schools impact fees with developers per square footage for residential units in order to fund school improvements. The proposed project does not include any physical improvements; therefore, future school facility needs would be funded by fees collected by future development projects within the City. Further, all future projects consistent with the proposed LUE and UDE would be required to undergo project-specific environmental review and comply with the provision of school developer fees for new/altered facilities. Additional school resources would also continue to be funded by an increase in tax revenue as a result of future growth. Therefore, impacts of the proposed project related to student generation and the potential need for additional school facilities would be less than significant, and no mitigation is required.

Threshold 4.7.5: **Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any other *public facilities*?**

Less than Significant Impact. The proposed project does not include any physical improvements but would allow for new PlaceTypes that would facilitate an increase in housing units in the City and could increase the demand for LBPL facilities. As previously identified, implementation of the proposed project could result in the development of approximately 11,744 dwelling units and the addition of 51,230 persons.

Public Library. Demand for library services is typically determined based on the size of the resident population. The City has not formally adopted a service standard of library space per capita, but the City did establish a target of 0.45 sf per capita in its budget for FY 2007. Using this standard and the estimated future population of approximately 484,485, the LBPL system would need to contain a total of 218,018¹ sf to meet this target. In total, the existing LBPL system has approximately 220,265 sf of library facilities, which is adequate to serve the City's existing population and sufficiently support the projected demand generated by the buildout of the General Plan. Additionally, the North Branch Library is scheduled to move to a new, larger facility later in 2016. The move to a larger facility will increase the LBPL square footage by approximately 17,700 sf.² Therefore, the proposed project's increase in demand on library services can be served by the existing facilities and would not adversely affect library services in the project area. As such, the proposed project would have less than significant impacts related to public libraries, and no mitigation is required.

¹ 0.45 square feet per the City's population of 484,485 in 2040.

² LBPL. Manager of Main Library Services, Susan Jones. Email Correspondence. January 19, 2016.

Electricity. Growth in the City would result in additional demand for electricity. The existing energy demand (2012) is 1,634.2 GWh. As illustrated by Table 4.7.J, Forecast Electricity Demands, future growth occurring under the proposed project would generate electricity demand of approximately 1,827.71 GWh in the General Plan buildout year of 2040. As such, the project-related increase in electricity demand would be approximately 11 percent greater than the existing electricity demand. Because no 2040 forecast was available, the 2025 high demand consumption forecast was extrapolated to the 2040 high demand consumption forecast.¹ Using this calculation, the 2040 high demand consumption would be 151,484 GWh in 2040. The 2040 proposed project build out would represent approximately 1 percent of the extrapolated 2040 peak demand. Therefore, it is anticipated that build out of the General Plan would be within the forecasted electricity demand for 2040 build out. The projected electricity demand does not include the State's 50 percent increase in energy efficiency Renewable Portfolio Standard (RPS) for new residences and buildings nor does not account for in Title 24 building energy efficiency as a result of changes to the proposed 2017 CalGreen Building and Energy Efficiency Standards for new residences and buildings.

New facilities to support the project-related demand for electricity would be constructed in accordance with the demand for the new service. Because developments that would be considered under the proposed project have not yet been designed or proposed, the specific electricity facilities that would need to be installed to serve such future developments are unknown at this time, as are the potential environmental impacts of such installations. Potential environmental impacts would be evaluated on a project-by-project basis. However, it is not anticipated that major new facilities would be necessary to serve new development facilitated by project approval at General Plan buildout (2040). Furthermore, because the City is largely built out, the construction of new electrical substations is also not expected to be necessary. Therefore, growth in demand for electricity is anticipated to be less than significant, and no mitigation is required.

Natural Gas. Future development occurring under the proposed project would result in additional demand for natural gas. According to the California Gas Report, the existing natural gas demand (2012) in the LBGO is 8,906 MMcf.² As illustrated by Table 4.7.K, Forecast Natural Gas Demands, future growth occurring under the proposed project would generate a natural gas demand of 13,303.22 MMcf, or an approximately 33 percent increase in natural gas demand. The projected natural gas demand does not include the State's 50 percent increase in energy efficiency RPS for new residences and buildings nor does not account for in Title 24 building energy efficiency as a result of changes to the proposed 2017 CalGreen Building and Energy Efficiency Standards for new residences and buildings.

¹ The high electricity demand annual growth rate of 1.58 percent was applied to the 2025 demand of 119,741 GWh and was carried forth through General Plan buildout (or a period of 15 years), resulting in an estimated demand of 151,483.74 in 2040.

² While the SCAQMD's natural gas demand rates resulted in a higher (12,202.24 MMcf) natural gas usage for the year 2012, the 2012 natural gas demand of 8,906 MMcf (as reported in the SoCal Gas reported in the So Cal Gas Report) has been utilized for purposes of this analysis as it represents a more conservative analysis.

Table 4.7.J: Forecast Electricity Demands

Electricity Demand	Unit Type	Usage Factor ¹	2012	2040 Buildout	2012 Usage kwh/yr	2040 Buildout kwh/yr	Project-Related Increase kwh/yr	2012 Usage gwh/yr	2040 Buildout gwh/yr	Project-Related Increase gwh/yr	Percentage Increase
Residential	kwh/unit/yr	5626.5	163,794	175,538	921,586,941	987,664,557	66,077,616	921.59	987.66	66.08	7%
Commercial /Retail	kwh/sf/yr	13.55	21,015,600	24,484,100	284,761,380	331,759,555	46,998,175	284.76	331.76	47.00	14%
Office	kwh/sf/yr	12.95	7,984,400	8,977,500	103,397,980	116,258,625	12,860,645	103.40	116.26	12.86	11%
Industrial	kwh/sf/yr	4.35	17,571,000	25,240,600	76,433,850	109,796,610	33,362,760	76.43	109.80	33.36	30%
Public Facilities/Institutional	kwh/sf/yr	11.55	21,474,000	24,435,800	248,024,700	282,233,490	34,208,790	248.02	282.23	34.21	12%
Total	-	-	-	-	1,634,204,851	1,827,712,837	193,507,986	1,634.20	1,827.71	193.51	11%

Source: LSA Associates, Inc. (May 2016).

¹ SCAQMD, CEQA Air Quality Handbook, Table A-9-11-A, 1993.

Table 4.7.K: Forecast Natural Gas Demands

Natural Gas Demand	Unit Type	Usage Factor ¹	2012	2040 Buildout	2012 Usage cf/month	2040 Buildout cf/month	Project-Related Increase cf/month	2012 Usage cf/yr	2040 Buildout cf/yr	Project-Related Increase cf/yr	2012 Usage MMcf/yr	2040 Buildout MMcf/yr	Project-Related Increase MMcf/yr
SF Residential	cf/unit/month	6,665	63,934	64,598	426,120,110	430,545,670	4,425,560	5,113,441,320	5,166,548,040	53,106,720	5,113.44	5,166.55	53.11
MF Residential	cf/unit/month	4,011.5	99,860	110,940	400,588,390	445,035,810	44,447,420	4,807,060,680	5,340,429,720	533,369,040	4,807.06	5,340.43	533.37
Commercial /Retail	cf/sf/month	2.9	21,015,600	24,484,100	60,945,240	71,003,890	10,058,650	731,342,880	852,046,680	120,703,800	731.34	852.05	120.70
Office	cf/sf/month	2	7,984,400	8,977,500	15,968,800	17,955,000	1,986,200	191,625,600	215,460,000	23,834,400	191.63	215.46	23.83
Industrial	cf/sf/month	2.9	17,571,000	25,240,600	50,955,900	73,197,740	22,241,840	611,470,800	878,372,880	266,902,080	611.47	878.37	266.90
Public Facilities/Institutional	cf/sf/month	2.9	21,474,000	24,435,800	62,274,600	70,863,820	8,589,220	747,295,200	850,365,840	103,070,640	747.30	850.37	103.07
Total	-	-	-	-	1,016,853,040	1,108,601,930	91,748,890	12,202,236,480	13,303,223,160	1,100,986,680	12,202.24²	13,303.22	1,100.99

Source: LSA Associates, Inc. (May 2016).

¹ SCAQMD, CEQA Air Quality Handbook, Table A9-12-A, 1993.

² While the natural gas demand rates provided in the SCAQMD CEQA Air Quality Handbook resulted in a natural gas demand of (12,202.24 MMcf for the year 2012, the 2012 natural gas demand of 8,906 MMcf, as reported in the SoCal Gas reported in the So Cal Gas Report, has been utilized for purposes of this analysis as it represents a more conservative analysis.

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Gas service will be added to the existing system operated and maintained by the City of Long Beach Gas and Oil Department, as necessary to meet the requirements of individual projects within the City. Because developments that would be considered under the proposed project have not yet been designed or proposed, the specific improvements to existing natural gas facilities that would need to be implemented to serve future developments are unknown at this time, as are the potential environmental impacts of such improvements. Potential environmental impacts would be evaluated on a project-by-project basis. However, it is not anticipated that major improvements would be necessary to serve the City and new development facilitated by the project approval. Therefore, growth in demand for natural gas is anticipated to be less than significant, and no mitigation is required.

Table 4.7.L includes a project-specific consistency analysis with applicable Appendix F considerations.

Table 4.7.L: Proposed Project Comparison to *State CEQA Guidelines Appendix F*

Appendix F Items for Consideration	Proposed Project
1. The project’s energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.	Energy use during construction of future development facilitated by project approval would primarily involve gasoline and diesel fuel and represents a short-term use of readily available resources. Potential impacts would be less than significant, and no mitigation is required. Operational energy needs include natural gas and electricity. Build out of the proposed project, including new development proposed within the Areas of Change, would result in a 2040 natural gas demand of 13,303.22 MMcf. Demand for electricity under buildout of the General Plan would be 1,827.71 GWh. Future development under the proposed project would be required to meet or exceed the provisions included in the Title 24 Green Building Code. Additionally, because developments that would be considered under the proposed project have not been designed or proposed at this time, potential improvements to the current energy and natural gas facilities would be identified at the time such projects are considered. Therefore, potential impacts would be less than significant, and no mitigation is required.
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.	The proposed project does not include physical improvements, but future development facilitated by the proposed project would be required to meet or exceed the provisions included in the Title 24 Green Building Code. The 2040 with project demand for energy supplies would be an increase over the current General Plan build out, but would remain within the forecasted demands for each utility.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.	The proposed project’s impact relative to peak and base demands for electricity and other forms of energy is discussed in Section 4.9.10, Cumulative Impacts. Future projects would implement a variety of energy conservation measures and would be required to meet the California Building Energy Efficient Standards contained in Title 24. Additionally, because developments that would be considered under the proposed project have not been designed or proposed at this time, potential improvements to the current energy and natural gas facilities would be identified at the time such projects are proposed and considered. Potential impacts would be less than significant, and no mitigation is required.

Table 4.7.L: Proposed Project Comparison to *State CEQA Guidelines Appendix F*

Appendix F Items for Consideration	Proposed Project
4. The degree to which the project complies with existing energy standards.	Future development under the proposed project would be required to meet or exceed the provisions included in the Title 24 Green Building Code. Potential impacts would be less than significant, and no mitigation is required.
5. The effects of the project on energy resources.	<p>Future development under the proposed project would be required to meet or exceed the provisions included in the Title 24 Green Building Code. Further, the energy demands of the proposed project would be included in the calculation of delivery capabilities and projected loads for SCE and LBGO.</p> <p>The estimated amount of natural gas consumption for the General Plan build out is approximately 13,303.22 MMCF, or an 11 percent overall increase in electricity demand. Electricity use is projected to be 1,8277.71 GWh at General Plan build out, or a 33 percent overall increase in natural gas demand. The increased demand for natural gas and electricity does not account energy efficiency standards. Future improvements to existing electricity and natural gas facilities would be determined on a project-by-project basis. However, it is not anticipated that major new facilities would be necessary to serve new development facilitated by project approval at General Plan build out (2040). Potential impacts would be less than significant, and no mitigation is required</p>
6. The Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.	<p>The proposed project would be located in an urban area currently served by public transportation. Transit service is provided within the project vicinity by Los Angeles County Metropolitan Transportation Authority (Metro) and Long Beach Transit. It is anticipated that the existing transit service in the project area would be able to accommodate the project-generated transit trips.</p> <p>The estimated traffic from the proposed project Areas of Change was addressed in Section 4.8, Transportation/ Traffic, in the Draft EIR and the <i>Traffic Impact Analysis (TIA)</i> (LSA 2016). The growth in traffic is expected to generate an additional 87,564 ADTs in year 2040 within the Areas of Change.</p> <p>Commuting distances would likely be reduced for a portion of those trips due to the design of the proposed project with mixed uses. For example, the proposed project concentrates new growth within the TOD PlaceType (along the Metro Blue Line in the City's Downtown) to encourage new residents to utilize public transit. Furthermore, the proposed project encourages the creation of bicycle and pedestrian paths and proposes improvements to existing paths to improve the City's bikability and walkability. The project also establishes PlaceTypes in place of traditional land use types, which allow for increased flexibility and promote mixed uses, which would improve the City's walkability. While the project would promote new development which would increase transportation energy use in the City, the project would result in a reduction in transportation in energy usage over existing and currently projected growth patterns due to the project's focus on improving alternative transportation modes within the City.</p>

CEQA = California Environmental Quality Act
 EIR = Environmental Impact Report
 Metro = Los Angeles County Metropolitan Transportation Authority
 SCE = Southern California Edison

Table 4.7.L: Proposed Project Comparison to *State CEQA Guidelines Appendix F*

Appendix F Items for Consideration	Proposed Project
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LBGO = Long Beach Gas and Oil

4.7.9 Mitigation Measures

There would be no significant adverse impacts of the proposed project related to public services. No mitigation is required.

4.7.10 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for public services and utilities. The planning area includes the entire 50 square miles within the limits of the City of Long Beach; therefore, the cumulative area for public services is listed below for each individual public service provider.

Fire Protection. The geographic area for cumulative analysis of fire protection services is defined as the LBFD service territory, which is defined as the City of Long Beach. Each future project within the City would be evaluated individually, and project-specific mitigation would be required as needed.

The City is almost entirely built out, with most new development occurring as in-fill projects. The LBFD anticipates cumulative demand in order to plan for overall service. This cumulative demand is anticipated to be met through project implementation as the LUE establishes the development of future fire stations as a preferred land use type in the following PlaceTypes: Founding and Contemporary Neighborhood, Multi-Family Residential – Low and Moderate, Neighborhood-Serving Centers and Corridors – Low and Moderate, and Transit-Oriented Development – Low and Moderate, and Industrial. Furthermore, through implementation of the proposed project, the City will reduce the potential for dangerous fires by concentrating development within urban areas where there is a low fire risk and by requiring that future projects comply with applicable City and State regulations related to fire. Therefore, the proposed project’s contribution to fire protection impacts would not be cumulatively considerable, and no mitigation is required.

Police Protection. The geographic area for cumulative analysis of police projection is defined as the service area for the LBPd, which is defined as the City of Long Beach. Each future project within the project area would be evaluated individually, and project-specific mitigation would be required as needed.

The City is almost entirely built out, with most new development occurring as in-fill projects. This cumulative demand is anticipated to be met through project implementation as the LUE establishes the development of future police stations as a preferred land use type in the following PlaceTypes: Founding and Contemporary Neighborhood, Multi-Family Residential – Low and Moderate, Neighborhood-Serving Centers and Corridors – Low and Moderate, Transit-Oriented Development – Low and Moderate, and Industrial. In addition, the need for additional law enforcement associated

with cumulative growth would be addressed through the annual budgeting process when budget adjustments would be made in an effort to meet changes in service demand. Therefore, the proposed project's contribution to police protection impacts would not be cumulatively considerable, and no mitigation is required.

Public Schools. The geographic area for the cumulative analysis of public schools is defined as the service territory for the LBUSD. Each future project within the project area would be evaluated individually, and project-specific mitigation would be required as needed.

The proposed project would generate approximately 3,977 school-aged children, which would lead to an increased demand on existing educational school facilities. Future projects consistent with the LUE would be accounted for on a project-by-project basis. Residential projects located within the LBUSD service area, but outside the City of Long Beach, would have the potential to generate school-aged children, and, as a result, increase demand on educational school facilities. As noted above, LBUSD would assess developer fees to future projects within its service area in an effort to fund future schools needed to meet the project-related increase in school-aged children. Further, while the City acknowledges that new development would increase demand for school facilities, the City is precluded by Senate Bill 50 from considering this a significant CEQA impact where the collection of school impacts fees occurs. Therefore, the proposed project would not contribute to any cumulative school impacts, and no mitigation is required.

Public Libraries. The geographic area for the cumulative analysis of public libraries is defined as the service territory for the LBPL system. Each future project within the project area would be evaluated individually, and project-specific mitigation would be required as needed. The City currently meets the LBPL system's square footage requirements, and the proposed project would not exceed the LBPL system's ability to meet project demand at General Plan buildout with existing library services. Therefore, the proposed project's contribution to library impacts would not be cumulatively considerable, and no mitigation is required.

Electricity. The geographic area for the cumulative analysis of impacts to the provision of electricity is the service territory of SCE. SCE's service area covers approximately 50,000 square miles, spanning central, coastal, and southern California, with a total of 15 million business and residential accounts. The CEC estimates that both the net peak demand and the net energy load within SCE's service territory will continue to grow annually by 0.63 percent and 1.15 percent, respectively.

Buildout of the General Plan would result in an operational electricity demand of 1,827.71 GWh (an 11 percent increase in demand over existing 2012 conditions). The SCE service territory is forecasted to have high demand consumption of 119,741 GWh in 2025. Because no 2040 forecast was available, the 2025 high demand consumption forecast was extrapolated to the 2040 high demand consumption forecast. Using this calculation, the 2040 high demand consumption would be 151,484 GWh in 2040. The 2040 proposed project build out would represent approximately 1 percent of the extrapolated 2040 peak demand. Therefore, it is anticipated that build out of the General Plan would be within the forecasted electricity demand for 2040 build out.

Although the proposed project has the potential to increase electrical demand in the area, SCE has identified adequate capacity to handle increase in electrical demand, and any increase in electrical demand resulting from the proposed project would be incremental compared to an increase in regional electrical demand. Compliance with Title 24 of the California Administrative Code regulates energy consumption in new construction and regulates building energy consumption for heating, cooling, and lighting for future development under the proposed project. Therefore, in relation to the cumulative study area, the proposed project's incremental contribution to increased demand for electricity would not be cumulatively considerable, and no mitigation is required.

Natural Gas. The geographic area for the cumulative analysis of impacts to the provision of natural gas is the service territory for LBGO. LBGO's service area covers the Cities of Long Beach and Signal Hill and portions of surrounding communities, including the cities Bellflower, Compton, Lakewood, Los Alamitos, Paramount, and Seal Beach. According to the 2014 California Gas Report, the future LBGO annual demand for natural gas is projected to reach 9,605 MMcf in 2035. Build out of the General Plan (2040) would result in an operational natural gas demand of 13,303.22 MMcf. Therefore, the anticipated 2040 natural gas demand represents would exceed the LBGO's projected natural gas demand for the year 2035. While future development under the General Plan buildout (2040) scenario would exceed current projections for the year 2035, all future development under the proposed project would be subject to Title 24 requirements and would be evaluated on a case-by-case basis to determine the need for specific distribution infrastructure improvements. Furthermore, gas service would be added to the existing system by LBGO, as necessary, to meet the requirements of individual development projects in the City. Therefore, the proposed project's contribution to cumulative natural gas impacts would be considered less than significant.

4.7.11 Level of Significance after Mitigation

No mitigation measures are required and all potential impacts related to public services would remain less than significant.

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