CHAPTER 6
Other CEQA Considerations

This chapter presents the evaluation of other types of environmental impacts required by the California Environmental Quality Act (CEQA) that are not covered within the other chapters of this Environmental Impact Report (EIR). The other CEQA considerations include growth-inducing impacts, significant irreversible environmental changes that would be caused by the proposed project, significant and unavoidable adverse impacts, and environmental effects that were found not to be significant.

6.1 Growth-Inducing Impacts

Pursuant to Section 15126.2(d) of the CEQA Guidelines, an EIR must address whether a project will directly or indirectly foster growth. Section 15126.2(d) reads as follows:

> *[An EIR shall] discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant, might, for example, allow for more construction in service areas). Increases in population may further tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.*

Implementation of the Complete Streets improvements would result in the reconfiguration of Coast Highway. As discussed in Section 3.11, Population and Housing, while the Complete Streets improvements would change the existing circulation system within the project area, these changes would not result in direct or indirect population growth. The improvements would not increase the capacity of the roadways nor would the improvements facilitate additional traffic. No new roadways or transportation facilities are proposed that would support additional population growth beyond currently anticipated population growth within the city. Therefore, the Complete Streets improvements component of the proposed project would not induce substantial population growth, either directly or indirectly.

Adoption of the Incentive District would provide optional regulations and standards that a developer or property owner may choose in lieu of the existing underlying zoning within the Incentive District boundaries. The Incentive District would allow for different types of

residential, commercial, and mixed-use developments throughout the corridor. The intent of the Incentive District is to provide a stimulus in the project area and to encourage the type of development that the City would prefer in the project area. Implementation of the Incentive District could increase the rate and intensity of population growth in the area directly affected by the Incentive District (i.e., the Incentive District zone boundaries). However, the relative growth that could occur under the Incentive District could also occur with the implementation of current land use regulations. The potential environmental impacts that could result from future growth, both within the Incentive District boundaries and in the surrounding areas of the city, have been considered in the environmental topical analyses in this EIR (e.g., traffic, air quality, biological resources).

6.2 Significant Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(c) requires that an EIR analyze the extent to which a proposed project's primary and secondary effects would impact the environment and commit nonrenewable resources to uses that future generations would not be able to reverse. "Significant irreversible environmental changes" include the use of nonrenewable natural resources during the initial and continued phases of the project, should this use result in the unavailability of these resources in the future. Primary impacts and, particularly, secondary impacts generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with a proposed project. Irretrievable commitments of these resources are required to be evaluated in an EIR to ensure that such consumption is justified.

Approval of the proposed project would cause irreversible environmental changes consisting of the following:

- Increased requirements of public services and utilities that represent a permanent commitment of these resources. There would be an adequate supply of water and wastewater resources to supply the proposed project and the ability to provide fire protection, police protection, emergency medical service, and solid waste services (see Section 3.12, Public Services, and 3.15, Utilities).
- Use of various nonrenewable natural resources for project construction and operations, such as diesel, gasoline, or oil for construction equipment and natural gas or other fossil fuels used to provide power and heating sources. The energy consumed in developing and maintaining the project area may be considered a permanent investment. Development under the Incentive District and implementation of the Complete Streets improvements would not use nonrenewable fossil fuels at a greater rate than other typical construction projects. The proposed project would not increase the overall rate of use of any nonrenewable natural resource or result in the substantial depletion of any nonrenewable resource.
- Use of various renewable natural resources, such as water, lumber, and soil, for construction and operations. The proposed project is a relatively minor consumer of these supplies when compared to other local and regional users. The proposed project would not increase the overall rate of use of any renewable natural resource or result in the substantial depletion of any renewable resource.

6.3 Significant Unavoidable Impacts

CEQA Guidelines Section 15126.2(b) requires that an EIR describe any significant impacts that cannot be avoided, including those impacts that can be mitigated but not reduced to a less-than-significant level. Chapter 3 of this EIR describes the potential environmental impacts of the proposed project and recommends mitigation measures to reduce impacts, where feasible. As discussed in this EIR, implementation of the proposed project would result in significant impacts to air quality, biological resources, cultural resources, greenhouse gas emissions, noise and vibration, and transportation and traffic. However, most of these impacts would be mitigated to below a level of significance with implementation of mitigation measures identified in this EIR.

The significant impacts that cannot be mitigated to a less-than-significant level, and therefore are considered significant unavoidable impacts are related to the following:

- Contribution to an existing or projected air quality violation associated with future construction and operational activities that are related to the land uses permitted by the Incentive District and cumulative projects.
- Contribution to a cumulatively considerable net increase of a criteria pollutant for which the project region is in nonattainment associated with construction and operation of the Incentive District and cumulative projects.
- Contribution to a net increase in greenhouse gas (GHG) emissions in the aggregate associated with the Incentive District and cumulative projects.
- Operational noise impacts along Wisconsin Avenue between Freeman Street and Ditmar Street associated with the Complete Streets improvements, the Incentive District, and cumulative projects.
- Temporary substantial increase in ambient noise levels associated with the Complete Streets improvements, the Incentive District, and cumulative project construction.
- Contribution to unacceptable levels of service (LOS) at the intersections of Coast Highway and Wisconsin Avenue and Vista Way and Stewart Street associated with the proposed project in the Future with Project scenario.

These unavoidable adverse impacts would require a Statement of Overriding Considerations if the project were to be approved by the City.

6.4 Environmental Effects Found Not to Be Significant

Chapter 3 of this EIR analyzes the environmental issues areas that have the potential to result in significant impacts. CEQA Guidelines Section 15128 requires that an EIR contain a brief discussion stating the reasons why certain environmental effects of the proposed project were determined to have no impact and are thus not discussed in detail in the EIR. These environmental issue areas that were found to have no impacts are addressed below.

6.4.1 Agriculture and Forest Resources

Issue 1: Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

According to the City of Oceanside General Plan, the project area is not designated as an agricultural land use (City of Oceanside 2002). In addition, according to the California Department of Conservation's Farmland Mapping and Monitoring Program, the project site does not include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation 2016). Therefore, the proposed project would not convert important agricultural land to non-agricultural use.

Issue 2: Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

According to the City of Oceanside's 1986 Zoning Ordinance, the project area is zoned as General Commercial (C-2), Visitor Commercial (VC), Neighborhood Commercial (C1), Light Industrial (M1), Medium Density Residential (R-3), and Office Professional (OP); these zoning categories do not include agricultural uses. In addition, according to the California Department of Conservation, the proposed project is not located on land with a Williamson Act contract (California Department of Conservation 2013). Therefore, implementation of the proposed project would not conflict with existing zoning or a Williamson Act contract.

Issue 3: Would the project result in the loss of forest land or conversion of forest land to non-forest use?

According to the City of Oceanside General Plan, the project area is not designated as forest land (City of Oceanside 2002). Therefore, the proposed project would not convert or result in the loss of forest land to non-forest use.

Issue 4: Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

According to the City of Oceanside General Plan, the project area does not contain any Forest Land, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (City of Oceanside 2002). Therefore, the proposed project would not convert or impact any of these resource types.

6.4.2 Mineral Resources

Issue 1: Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

According to the City of Oceanside General Plan, the project area is not located within a Mineral Resource Area (City of Oceanside 2002). In addition, the project area is already developed and, according to the United States Geological Survey (USGS), the project area is not identified as having a history of mineral extraction uses (USGS 2016). Therefore, the project area is not considered to contain mineral resources of significant economic value. The proposed project

would not result in the loss of available, known mineral resources or the loss of an available, locally important mineral resource recovery site.

Issue 2: Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

According to the City of Oceanside General Plan, the project area is not located within a Mineral Resource Area (City of Oceanside 2002). In addition, the project area is already developed and, according to the USGS, the project area is not identified as having a history of mineral extraction uses (USGS 2016). Therefore, the project area is not considered to contain mineral resources of significant economic value. The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, Specific Plan, or other land use plan.

6.5 Energy

Public Resources Code (PRC) Section 21100(b)(3) states that an EIR shall include "mitigation measures proposed to minimize significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." Similarly, CEQA Guidelines Section 15126.4(a)(1)(C) states that "Energy conservation measures, as well as other appropriate mitigation measures, shall be discussed when relevant."

Appendix F of the CEQA Guidelines states that a project EIR should consider to the extent relevant and applicable the potentially significant energy implications of a project, including "Energy consuming equipment and processes which will be used during construction, operation and/or removal of the project. If appropriate, this discussion should consider the energy intensiveness of materials and equipment required for the project" (CEQA Guidelines, Appendix F (II)(A)(1)). Further, Appendix F notes an EIR should consider whether the project involves "Unavoidable Adverse Effect" such as "wasteful, inefficient and unnecessary consumption of energy during the project construction, operation maintenance and/or removal that cannot be feasibly mitigated" (Guidelines, Appendix F (II)(F)).

In accordance with the intent of Appendix F of the CEQA Guidelines, this Draft EIR includes relevant information and analyses that address the energy implications of the project. This section represents a summary of the project's anticipated energy needs, impacts, and conservation measures. Information found herein, as well as other aspects of the project's energy implications, is discussed elsewhere in this Draft EIR, including in Sections 3.2, Air Quality, 3.6, Greenhouse Gas Emissions, and 3.15, Utilities and Service Systems.

The project would receive its electricity from San Diego Gas and Electric (SDG&E). The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) are required to assess population growth, electricity demand, and reliability. As discussed on the CEC's website, the CEC is tasked with conducting assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand and prices (CEC 2015). The CEC uses these assessments and forecasts to develop energy policies, that

conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety (PRC Section 25301(a)).

Power plants that provide electricity for SDG&E are required to go through individual environmental review processes, which may be through the CEC's certified regulatory program under CEQA or may go through the CPUC's CEQA processes (CEC 2017). As discussed by the CEC, from 1978 to 1998 before California's electricity generation industry was restructured, the CEC analyzed and approved 47 projects totaling 5,589 megawatts (MW). More recently, in the early 1990s the CEC certified 14 power plants. Of the 14 plants, 10 were approved and 8 were constructed, totaling 995 MW. From 1998 through early 2017, electric generation projects, totaling 34,818 MW, have been reviewed and licensed by the CEC and 66 of these licensed facilities have been built and are on-line, producing 22,965 MW (CEC 2017). The CEC is continuously tracking potential projects 50 MW and larger. Similarly, the CPUC conducts and manages environmental review of infrastructure projects, including electric, gas, water, and telecommunications.

For the reasons set forth below, this EIR concludes that the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy, would not cause the need for additional natural gas or energy-producing facilities, and therefore would not create a significant impact on energy resources.

6.5.1 Energy Requirements of the Project

Complete Streets Improvements

The Complete Streets improvements would involve the conversion of the Coast Highway corridor from four lanes to two lanes, and phased construction of 12 new roundabout intersections, all of which are currently signalized, with the exception of the intersections with Washington Avenue, West Street, and Kelly Street, which currently are stop-sign controlled (IBI 2017). The Complete Streets improvements are analyzed at a project-level, in accordance with CEQA Guidelines Section 15161.

As discussed in Section 3.2, Air Quality, construction activities associated with the project would include the following: demolition, site preparation, grading, utility trenching, street construction, and paving. During these phases, heavy-duty construction equipment would be used to perform the required work. In addition, construction workers would be required to travel to and from the project area, and material delivery and haul trucks would be required to transport supplies to, and debris from, the project area.

Energy consumption for the Complete Streets improvements would result primarily from transportation fuels (e.g., diesel and gasoline) used for heavy-duty construction equipment, haul trucks, and construction workers traveling to and from the project area. This analysis provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources.

Heavy-duty construction equipment associated with demolition, site preparation, grading, utility trenching, street construction, and paving would include equipment such as excavators, graders, tractors/loaders/backhoes, rollers, and pavers. The majority of the equipment would likely be diesel-fueled, although smaller equipment, such as signal boards, may be electric-powered. However, this assessment assumes the equipment would be diesel-fueled, due to the speculative nature of specifying the amounts and types of non-diesel equipment that might be used and the difficulties in calculating the energy that would be consumed by this non-diesel equipment. The use of diesel fuel for all equipment also represents the most conservative scenario for maximum potential energy use during construction. Based on the number and type of construction equipment that would be used during construction activities, and based on the estimated duration of construction activities, the Complete Streets improvements would use approximately 164,570 gallons of diesel fuel for heavy-duty construction equipment.

Based on the proposed development program and engineering estimates that form the basis of the construction-related impact analyses, it is estimated that a maximum of approximately 2,874 one-way truck trips would be required to haul the material to off-site reuse and disposal facilities. It is conservatively estimated that a maximum of approximately 204 one-way vendor truck trips would be required to deliver materials and supplies to the project area. Based on the California Air Resources Board (CARB) on-road vehicle emissions model, EMFAC2014, heavy-duty haul trucks operating in the San Diego Air Basin would have an estimated fuel economy of approximately 5.8 miles per gallon (based on fleet average haul trucks in use during calendar year 2017). Medium- and heavy-duty vendor trucks operating in the San Diego Air Basin would have an estimated fuel economy of approximately 6.5 miles per gallon (based on fleet average medium- and heavy-duty trucks in use during calendar year 2017). Based on the information described above, construction of the Complete Streets improvements would use a total of approximately 17,940 gallons of diesel fuel for haul truck and vendor delivery trips.

The number of construction workers that would be required would vary based on the phase of construction and activity taking place. The transportation fuel required by construction workers to travel to and from the project area would depend on the total number of worker trips estimated for the duration of construction activity. According to the EMFAC2014 model, passenger vehicles operating in the San Diego Air Basin would have an average fuel economy of approximately 23.9 miles per gallon (based on fleet average passenger vehicles in use during calendar year 2017). Assuming construction worker automobiles have an average fuel economy consistent with the EMFAC2014 model and given the total vehicle miles traveled for construction workers, based on engineering estimates provided in the California Emissions Estimator Model (CalEEMod) used for the air quality and greenhouse gas emissions assessment, workers would travel a total of 272,160 miles and would use approximately 11,390 gallons of fuel (primarily gasoline) for construction worker trips.

Based on fuel consumption data from the United States Energy Information Administration (USEIA), in 2015 California consumed a total of 342,523 thousand barrels of gasoline for transportation, which is equivalent to a total annual consumption of 14.4 billion gallons by the transportation sector (USEIA 2016a). For diesel, California consumed a total of 80,487 thousand

barrels for transportation, which is equivalent to a total annual consumption of 3.4 billion gallons by the transportation sector (USEIA 2016b).

Based on the conservatively estimated fuel usage amounts presented above, construction of the project would use approximately 182,500 gallons of diesel and 11,390 gallons of gasoline, assuming worker automobiles are primarily gasoline fueled and heavy-duty construction equipment and trucks are primarily diesel-fueled. To put these numbers into perspective, the estimated annual average construction fuel usage would represent a very small fraction of the State's annual fuel usage (about 0.005 percent of the statewide annual diesel consumption and 0.0001 percent of the statewide annual gasoline consumption). A comparison of the project's estimated fuel usage and the state's annual fuel usage is provided in **Table 6-1**, with the calculations supporting this table provided in Appendix G of this EIR.

Construction of the project is not expected to require substantial electricity usage. Electricity use during construction would vary depending on lighting needs and the use of electric-powered equipment and would be temporary for the duration of construction activities. If electric-powered construction equipment or vehicles are used, they would replace the diesel- and gasoline-fueled equipment assumed in this assessment. Therefore, it is expected that construction electricity use would generally be considered as temporary and negligible and accounted for in the fuel estimates discussed above.

TABLE 6-1
ESTIMATED COMPLETE STREETS IMPROVEMENTS CONSTRUCTION FUEL USAGE

	Gallons of Fuel per Year	
Source	**Diesel**	**Gasoline**
Project Construction		
Complete Streets Improvements	182,500	11,390
State of California (Transportation Sector)	3,300,000,000	14,400,000,000
Percent of State (Transportation Sector)	0.005%	0.0001%
Estimated Project Energy Savings from Construction Measures (anti-idling regulation)	8,300	N/A

SOURCE: ESA 2017. See Appendix G for calculations.

Operation of the Complete Streets improvements is not expected to result directly in an increase in energy usage. According to the Traffic Impact Analysis (TIA) prepared for the project (IBI 2017), the Complete Streets improvements are not expected to result in any net increases in vehicle trips when compared to existing baseline conditions. Therefore, operation of the Complete Streets improvements would result in no impacts with respect to energy.

Incentive District

As discussed in Chapter 2, Project Description, the Incentive District is an amendment to the Zoning Ordinance. The Incentive District would facilitate the Coast Highway Vision and Strategic Plan by encouraging redevelopment and revitalization of the Coast Highway corridor.

Land use development that could occur with adoption of the Incentive District would be anticipated to occur over the long-term through year 2035. Implementation of the Incentive District would require amendments to the City's existing General Plan and Zoning Ordinance. The Incentive District is analyzed programmatically in the EIR in accordance with Section 15168 of the CEQA Guidelines.

Construction of Projects Implemented under the Incentive District

Future project-specific construction activities that would occur as a result of the Incentive District may include building demolition, grading and excavation, building construction, interior and exterior architectural coatings, and asphalt paving. In order to quantify specific construction-related energy consumption amounts for the Incentive District, which would result primarily from consumption of transportation fuels (e.g., diesel and gasoline) used for heavy-duty construction equipment, haul and vendor trucks, and construction workers traveling to and from the future project areas, more information would be needed about the size, duration, and construction requirements of specific development projects. However, what is known at this time is that the construction of potential future projects under the Incentive District would allow for up to 63 dwelling units per acre and retail and commercial uses would also be allowed within the Incentive District. In addition, land use development would be anticipated to occur over the long-term through year 2035. Therefore, construction activities and associated fuel demand would not be expected to be concentrated or limited to a specific short-term time period.

Future construction activities would be required to comply with applicable state regulations that would minimize unnecessary fuel consumption, including CARB's on-road and off-road vehicle rules on idling limits (Title 13 California Code of Regulations [CCR], Section 2485), CARB's Truck and Bus regulation requiring a phased-in replacement or retrofit of engines to meet model year 2010 engine standards (13 CCR, Section 2025, subsection (h)), and CARB's Off-Road Equipment regulation that applies to off-road diesel construction equipment of greater than 25 horsepower and requires a phased-in replacement or retrofit of engines to meet specified emissions standards (13 CCR, Section 2449). While CARB adopted these regulations primarily to reduce air pollutant emissions, compliance with these regulations would also minimize unnecessary fuel consumption because unnecessary idling would be minimized and construction equipment used during future project-level construction activities would use technically feasible and commercially available engines that are newer and combust less fuel per mile driven or hour used. Additional details regarding fuel savings associated with compliance with these regulations is discussed below under subheading Construction Energy Conservation.

Operation of Projects Developed under the Incentive District

Future project-specific operational activities that would occur as a result of the Incentive District would require energy in the form of electricity and natural gas for building heating, cooling, cooking, lighting, water demand and wastewater treatment, consumer electronics, and other energy needs, as well as transportation-fuels, primarily gasoline, for vehicles traveling to and from the area. Information regarding specific land uses associated with future development projects and net trip generation rates would be needed in order to specifically quantify the operational-related energy consumption amounts for the Incentive District. Because this

additional level of detail is not available at this time and would it be speculative to estimate, a detailed analysis is not possible; therefore, energy impacts are analyzed programmatically.

Future development that could result through adoption of the Incentive District could result in an increase in overall area density, which may result in operational energy demand as a result of day-to-day activities. As discussed previously, future projects under the Incentive District would allow for up to 63 dwelling units per acre and retail and commercial uses would also be allowed within the Incentive District. In addition, land use development would be anticipated to occur over the long-term through year 2035. Therefore, potential growth in operational activities and associated energy demand would not be expected to be concentrated or limited to a specific short-term period.

Future new buildings that would be built under the Incentive District would meet or exceed the increasingly more energy-efficient standards in the Title 24 Building Standards Code. The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. The standards require increased energy efficiency and reduced consumption of electricity, natural gas, and other applicable fuels from residential and nonresidential buildings that are subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy-efficient technologies and methods. The standards were last updated in 2016 with an effective date of January 1, 2017, and apply to all new or substantially renovated buildings. According to the CEC, the Title 24 (2016) standards result in approximately 28 percent less Title 24 regulated energy demand for residential and 5 percent less Title 24 regulated energy demand for nonresidential lighting, heating, cooling, ventilation, and water heating compared to the previous Title 24 (2013) standards. It is expected that future updates to the Title 24 standards would result in increased energy efficiency. The next iteration of the Title 24 standards are anticipated in 2019; however, estimates regarding buildings' energy reductions from these future standards are not yet known or available. Additional details regarding building energy savings associated with compliance with these regulations are discussed below under subheading Operational Energy Conservation.

SDG&E would provide service to the project site to meet project electrical needs. SDG&E provides electricity to approximately 1.4 million business and residential accounts throughout its 4,100-square-mile service area, which includes 25 communities across two counties (SDG&E 2016a). SDG&E produces and purchases its energy from a mix of conventional and renewable generating sources. Based on 2014 data, SDG&E procured approximately 32 percent of electricity from renewable sources (CPUC 2017). The remaining 68 percent was from conventional sources, primarily natural gas. As of 2014, SDG&E has the capacity to generate approximately 3,117 megawatts (MW) of power from local sources (SDG&E 2014). In 2015, SDG&E had total electric distribution and transmission of approximately 19,916 million kilowatt-hours (kWh), which was less than the prior year 2014 total electric distribution and transmission of approximately 20,115 million kWh (Sempra 2016). SDG&E has the capacity to accommodate electric demand from future growth that may result from future development that could result through adoption of the Incentive District.

Natural gas services to the project area would be provided by Southern California Gas Company (SoCalGas). SoCalGas manages the purchasing and transmission of natural gas for SDG&E customers (SDG&E, 2013). The capacity available to SDG&E (e.g., southern zone of SoCalGas) is approximately 607 million cubic feet (MMcf) per day and the estimated supply taken in 2015 was approximately 327 MMcf per day (SDG&E 2016b). The projected supply taken in future years is anticipated to peak at 338 MMcf per day and decline through 2035 (SDG&E 2016b). This is primarily due to California transitioning to increased renewable energy production and decreased electricity derived from natural gas. Therefore, SDG&E has additional natural gas capacity to accommodate future growth that may result from future development that could result through adoption of the Incentive District.

The TIA for the project shows that daily per capita vehicles miles traveled (VMT) under future year 2035 with project conditions would be approximately 6.36 VMT per capita compared to the 2008 model base year VMT of 6.56 VMT per capita (IBI 2017). The future year 2035 without the project would be approximately 7.11 VMT per capita (IBI 2017). Thus, VMT per capita would be reduced with the project compared to the 2008 model base year and future no project conditions by approximately 3 percent and 11 percent, respectively. Therefore, future development that could occur through adoption of the Incentive District would result in increased transportation efficiency on a per capita basis relative to the 2008 model base year and future year 2035 "no project conditions," and would reduce per capita mobile source energy demand. This reduction in per capita VMT is supportive of per capita VMT reduction efforts in the SANDAG 2050 RTP and SCS.

In addition to per capita VMT reductions, vehicles would be expected to achieve greater fuel economy over the long-term as fuel economy standards adopted by the U.S. Environmental Protection Agency (USEPA) and State of California (i.e., standards through vehicle model year 2025) are implemented and as older vehicles are replaced with newer models. Under current USEPA standards, by vehicle model year 2025, passenger cars and light-duty trucks are required to achieve 54.5 miles per gallon (if the requisite emissions reductions are achieved exclusively through fuel economy improvements).

Nonetheless, future development that could occur as a result of adoption of the Incentive District could result in an increase in the total amount of VMT due to increased overall density, which may result in an overall net increase in transportation fuel demand, despite the improved transportation efficiency and per capita VMT reductions.

6.5.2 Construction Energy Conservation

Construction of the Complete Streets improvements and future project-specific construction that would occur as a result of the Incentive District would use construction contractors that demonstrate compliance with applicable CARB regulations, including anti-idling requirements and regulations that governing the accelerated retrofitting, repowering, or replacement of heavy duty diesel on- and off-road equipment. While intended to reduce air pollutant emissions, compliance with the above anti-idling and emissions regulations would also result in efficient use of construction-related energy and the minimization or elimination of wasteful and unnecessary consumption of energy.

According to the CARB staff report that was prepared at the time the anti-idling regulation was being proposed for adoption in late 2004/early 2005, the regulation was estimated to reduce non-essential idling and associated emissions of diesel particulate matter and nitrogen oxide (NO_X) emissions by 64 and 78 percent respectively in analysis year 2009 (CARB 2004). These reductions in emissions are directly attributable to overall reduced idling times and reduced idling fuel combustion as a result of compliance with the regulation.

Construction fuel savings would also be expected from the CARB regulations that require retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment engines with cleaner models. A field-testing program by an engine manufacturer that included a wide range of equipment types has shown that an off-road engine certified to the most stringent Tier 4 standard results in up to 10 percent lower fuel consumption than an equivalent Tier 3 off-road engine based on the overall results of the program (Cummins 2014). Another manufacturer has shown an 18 percent increase in fuel efficiency with a Tier 4 lift truck (i.e., forklift) as compared to the previous generation (MCF 2015).

With respect to the project-level analysis for the Complete Street improvements, as shown in in Table 6-1, compliance with the anti-idling regulation would be expected to generate fuel savings of approximately 8,300 gallons. While some level of construction fuel savings would be expected from the CARB regulations that require retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment engines with cleaner models, estimates are not included in the energy savings calculations for the Complete Street improvements since the underlying regulations are currently being phased in and the requirements generally apply to construction contractors' total fleet of equipment and not to specific equipment that would be used for a particular project.

With respect to the programmatic-level analysis for the Incentive District, compliance with the anti-idling regulation would be expected to generate fuel savings of approximately 64 percent or more of truck-idling fuel consumption that would occur in the absence of the regulation. Furthermore, construction fuel savings would be expected from the CARB regulations that require retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment engines with cleaner models. As discussed in Section 3.2, Air Quality, the requirements are current being phased-in and full compliance is required by 2023 for large and medium construction equipment fleet owners or operators and 2028 for small construction equipment fleet owners or operators. Adoption of the Incentive District would be anticipated to result in land use development over the long-term through year 2035. Therefore, it is reasonable to conclude that construction equipment that would be used, particularly after year 2023, would result in a 10 percent fuel savings or more based on full implementation of the regulations.

Based on the available data, construction would use energy for necessary on-site activities and to transport materials, soil, and debris to and from the project areas. It is reasonable to conclude that idling restrictions and compliance with regulations that require engines to meet more stringent standards would result in less fuel combustion and energy consumption and minimize the project's construction-related energy use. Therefore, construction of the project would not result in the wasteful and unnecessary consumption of energy. Furthermore, construction of the project

would use equipment that would be consistent with the energy standards applicable to construction equipment, including limiting idling fuel consumption and using contractors that comply with applicable CARB regulatory standards that affect energy efficiency. Finally, because project construction would entail energy demands largely associated with equipment and transportation fuels, construction of the project would not increase demands on the electric power network during peak and base period demand periods. As a result, construction energy impacts would be considered less than significant.

6.5.3 Operational Energy Conservation

Energy Efficiency

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality" (CBSC 2010). The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any "green" building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and nonresidential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality (CBSC 2010). The CALGreen Code was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2017 (CBSC 2016). Although the CALGreen Code was adopted as part of the State's efforts to reduce GHG emissions, the standards have co-benefits of reducing energy consumption from residential and nonresidential buildings subject to the standard. The standards codified in Title 24 Part 6 and Part 11 are updated periodically to allow for the consideration and inclusion of new energy-efficiency technologies and methods. Examples of energy measures in the Title 24 (2016) standards and the CALGreen Code (2016) include energy-efficiency metrics and performance standards for appliances, space-conditioning equipment (i.e., heating, ventilation, and air conditioning), water heating systems, windows and doors, insulation, lighting, and roofing materials; indoor and outdoor water use efficiency and conservation performance metrics; requirements to provide solar-ready buildings with a minimum solar zone area (solar zone is defined as a section of the roof designated and reserved for the future installation of a solar electric or solar thermal system); and requirements to include electric vehicle supply equipment (EVSE) for residential and nonresidential developments to promote transportation energy efficiency.

As discussed previously, according to the CEC, the Title 24 (2016) standards result in approximately 28 percent less Title 24 regulated energy demand for residential and 5 percent less Title 24 regulated energy demand for nonresidential lighting, heating, cooling, ventilation, and water heating compared to the previous Title 24 (2013) standards. Future development that could occur as a result of adoption of the Incentive District would be largely market-driven and would be expected to occur through year 2035. If the residential and commercial uses are built in future years, it is expected that compliance with future updates to the Title 24 standards would result in increased energy efficiency. The next iteration of the Title 24 standards is anticipated in 2019; however, estimates regarding buildings' energy reductions from these future standards are not yet known or available. The CPUC has designed the Zero Net Energy (ZNE) Action Plan to make new residential and commercial construction in California zero net energy by 2030 to assist the State in meeting its GHG reduction goals. The ZNE Action Plan's key milestones are achieved by improving and expanding Title 24 standards based on the future state of energy efficiency technologies and innovations, providing incentives, mandating carbon benchmarking and labeling, and developing performance data. However, it is not possible to accurately predict the increased level of energy efficiency associated with future updates to the Title 24 standards. Furthermore, Title 24 regulates only a portion of a building's energy usage primarily related to lighting, heating, cooling, ventilation, and water heating; therefore, is it not possible to speculate how future Title 24 standards would reduce the overall energy profile of a building. As a result, it is not possible to accurately predict the energy savings that could result from future development that could occur as a result of adoption of the Incentive District based on the future yet-to-be determined Title 24 standards. Nonetheless, future development would be built to achieve or exceed the energy-efficiency metrics in the applicable Title 24 standards and the CALGreen Code in affect at the time of building permit issuance. It is also reasonable to assert that future buildings built as a result of adoption of the Incentive District would likely replace older, less energy-efficient buildings and result in improved energy efficiency on a per-dwelling-unit or per-square-foot basis.

Based on the available data, operation of the future development that could occur as a result of adoption of the Incentive District would use energy for necessary building usage. The land uses would incorporate energy and water efficient designs consistent with energy efficiency standards in the applicable Title 24 standards and the CALGreen Code and would include EVSE to promote transportation energy efficiency. Because the project would implement energy-efficient building standards that were adopted specifically for the purpose of reducing energy consumption, development under the Incentive District would not result in the wasteful, inefficient, and unnecessary consumption of energy. In addition, the land uses would be constructed to be solar-ready and would not preclude opportunities for improving overall energy efficiency and future energy conservation. Furthermore, due to SDG&E's load planning process and available energy capacity, the energy demand from the land uses, including demand during peak times, would be expected to be accommodated within SDG&E's projected and planned for capacity. As a result, operational energy impacts would be considered less than significant.

Renewable-Energy Sources

As discussed in Section 3.2, Air Quality, under the State's Renewables Portfolio Standard (RPS), electric utility providers are required to supply 33 percent of electricity from renewable sources by 2020. Legislation adopted in 2015 further increased the RPS to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. Based on 2014 data, SDG&E procured approximately 32 percent of electricity from renewable sources and has approximately 43 percent currently under contract for 2020 (CPUC 2017). Therefore, SDG&E is currently contracted to exceed the 2020 and 2024 RPS targets. As a result, future development that could occur as a result of adoption of the Incentive District would be expected to be served with renewable energy in excess of the State's renewable standards. In addition, as discussed above, future development would be required to provide solar-ready buildings with a minimum solar zone area reserved for the installation of a solar electric or solar thermal system and would be required to include EVSE for residential and nonresidential developments to promote transportation energy efficiency.

Based on the available data, operation of the future development that could occur as a result of adoption of the Incentive District would not preclude opportunities for improving overall energy efficiency and future energy conservation through renewable energy. As a result, operational energy impacts would be considered less than significant.

Transportation Fuel Efficiency

With respect to operational transportation-related fuel usage, adoption of the Incentive District would support statewide efforts to improve transportation energy efficiency and reduce wasteful or inefficient transportation energy consumption with respect to private automobiles. The Incentive District would facilitate the Coast Highway Vision and Strategic Plan by encouraging redevelopment and revitalization of the Coast Highway corridor.

As discussed previously, the TIA for the project shows that daily per capita VMT under future year 2035 with project conditions would be reduced compared to the 2008 model base year and future no project conditions by approximately 3 percent and 11 percent, respectively. Therefore, the project would result in increased transportation efficiency on a per capita basis relative to the 2008 model base year and future year 2035 no project conditions, and would reduce per capita mobile source fuel consumption.

Future development would also encourage electric vehicles through the incorporation of EVSE. Plug-in electric vehicles would generally obtain battery power from utilities, which, as discussed above, are required to provide an increasing share of electricity from renewable sources (i.e., 33 percent by 2020 and 50 percent by 2030) under the State's RPS. Therefore, while plug-in electric vehicles would replace traditional transportation fuels (i.e., gasoline) with utility-provided electricity, the electricity would be provided by an increasing share of renewable sources resulting in an overall reduction in energy resource consumption. Vehicles would also be expected to achieve greater fuel economy over the long-term as fuel economy standards adopted by the USEPA and State of California (i.e., standards through vehicle model year 2025) are implemented and as older vehicles are replaced with newer models.

Based on the available data, operation of the future development that could occur as a result of adoption of the Incentive District would use transportation fuels necessary for residents and area visitors to travel to and from the area. Because the Incentive District would reduce per capita VMT and promote transportation energy efficiency, it would not result in the wasteful, inefficient, and unnecessary consumption of energy. As a result, operational transportation energy impacts would be considered less than significant.