3.10 Other CEQA Considerations

Appendix F of the CEQA Guidelines requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy in order to assure energy implications are considered in project decisions.

The introduction of Appendix F states that "[t]he goal of conserving energy implies the wise and efficient use of energy." Three means of achieving this goal are provided:

1. Decreasing overall per capita energy consumption;

2. Decreasing reliance on fossil fuels such as coal, natural gas, and oil; and

3. Increasing reliance on renewable energy sources.

Emphasis in the discussion should be on "avoiding or reducing inefficient, wasteful and unnecessary consumption of energy."

3.10.1 Energy

3.10.1.1 Introduction

PRC Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Appendix F of the CEQA Guidelines assists EIR preparers in determining whether a project would result in the inefficient, wasteful, and unnecessary consumption of energy, and states that when relevant to a project, an environmental impact report should consider: "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." (Guideline, Appendix F, (II)(F)). Appendix F 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, the CEQA Guidelines state that "Energy conservation measures, as well as other appropriate mitigation measures, shall be discussed when relevant."

The County's Guidelines for Determining Significance do not include guidelines on energy. Therefore, for the purpose of this EIR, Appendix F of the CEQA

Guidelines applies to the direct and indirect impact analysis, as well as the cumulative impact analysis. Appendix F does not prescribe a threshold for the determination of significance. Rather, Appendix F focuses on reducing and minimizing inefficient, wasteful, and unnecessary consumption of energy. For the purpose of this EIR, a significant impact to energy would result if the project would:

1. Result in the wasteful, inefficient, or unnecessary use of nonrenewable resources during its construction or long-term operation.

2. Be inconsistent with adopted plans and policies.

3. Place a significant demand on local and regional energy supplies, or require a substantial amount of additional capacity.

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 be inconsistent with adopted plans and policies, and would not place a significant demand on local and regional energy supplies, or require a substantial amount of additional capacity. Therefore, the proposed project would not result in a significant impact on energy resources.

3.10.1.2 Project Electricity Consumption

The project site would require temporary electrical power for the construction trailers and processing plant associated with the mining activities. Temporary power would be provided by San Diego Gas and Electric (SDG&E) from nearby power poles through an overhead transmission line that enters the project site from the south and connects to temporary power poles at the processing plant location. Existing power poles are located at the entrance to the project site off El Monte Road, and next to the proposed haul road just north of the residential homes off El Monte Road.

The electrical use for the proposed project, including all processing equipment such as aggregate sorters, screens, washers, onsite trailers, and security lighting, is estimated to be approximately 4,801 kWh per day and approximately 1,504,102 kWh per year.

3.10.1.3 Project Transportation Fuel Consumption

Mining operations, including the extraction and delivery of aggregate, would require the consumption of petroleum products, such as diesel fuel and gasoline, which are non-renewable resources. The demand for PCC-grade aggregate is high, and currently sand resources are in short supply in the County. Existing demand is being met by remote suppliers from Riverside and Imperial Counties

that must ship aggregate to the County primarily by truck and train, resulting in a substantial use of nonrenewable resources.

As discussed in Section 3.3, Greenhouse Gas Emissions, and in Appendix M, Greenhouse Gas Emissions Technical Report, currently, sand and aggregate is being transported into San Diego County from as far as way as Irwindale, California; Thermal, California; and Ensenada, Mexico (CalCIMA 2015) resulting in an average haul distance of up to 90 miles. By implementing the proposed project, average haul distance would be reduced to approximately 30 miles.[1] Based on the proposed project's estimated 96,000 aggregate truck trips per year (48,000 inbound trips and 48,000 outbound trips), the project would generate approximately 2.9 million vehicle miles traveled (VMT) annually by haul trucks to deliver aggregate into the County. Without implementation of the proposed project, the same 96,000 aggregate truck trips per year would generate approximately 8.6 million VMT per year. The project would represent an annual reduction of approximately 5.7 million VMT. According to the California Air Resources Board (CARB) on-road vehicle emissions factor (EMFAC2014) model, the average fuel economy for heavy-heavy duty trucks (HHDT) operating in San Diego County in calendar years 2017 and 2027 is approximately 5.5 miles per gallon and 6.2 miles per gallon, respectively, for diesel-fueled trucks. Therefore, there would be a reduction of approximately 1.0 million gallons and 0.9 million gallons of diesel based on calendar years 2017 and 2027 fuel efficiency levels, respectively, with implementation of the proposed project. Creating a local supply of PCC-grade aggregate from the proposed project would conserve energy and fuel overall, and generate less pollution associated with trucking and transport.

3.10.1.4 Impacts on Energy Consumption

Electricity

The proposed project would require temporary electrical power for the construction trailers and processing plants associated with the mining activities. The demand would be supplied from existing electrical services provided by SDG&E and would only occur during implementation of the proposed project. Once mining and reclamation activities are completed within 16 years, the project would no longer require electricity. The hours of operation for extraction and processing would occur between 7:00 a.m. and 5:00 p.m., Monday through Friday, and the transporting of aggregate would be conducted from 7:00 am to 5:00 pm, Monday through Friday, and from 7:00 am to 1:00 pm on Saturdays.

[1] Reduction in haul truck emissions was determined based on the difference in vehicle miles traveled currently to get aggregate from the current aggregate mines and the vehicle miles traveled anticipated from the location of the project within the central portion of San Diego County. The determination of reduction in vehicle miles traveled is detailed in Appendix M, Greenhouse Gas Emissions Technical Report.

The project site would be closed on Sundays and holidays. The project's operational hours would generally minimize the need for nighttime lighting. Shielded night lighting would be installed around the processing plant for security purposes. However, the lighting would be designed as energy efficient pole-mounted sodium, metal halide, or fluorescent lighting, which would minimize energy use. Therefore, given that the project's electricity demand is temporary, is required for necessary project activities, and would incorporate energy efficient designs, it would not result in the wasteful, inefficient, or unnecessary use of nonrenewable resources during construction or long-term operation, and impacts would be less than significant.

Transportation Fuel

Objectives of the project include recovering PCC-grade construction aggregates in a safe and efficient manner and reducing the County's dependence on imported aggregates, thereby reducing product cost, VMT, highway maintenance requirements, and vehicle emissions. An inherent co-benefit of achieving these project objectives includes minimizing or reducing transportation fuel demand by providing reliable, high-quality, locally produced PCC-grade construction aggregates.

The project would achieve these objectives by providing locally sourced aggregates within the County. Currently, sand and aggregate is transported into the County from as far as way as Irwindale, California; Thermal, California; and Ensenada, Mexico (CalCIMA 2015) resulting in an average haul distance of up to 90 miles. According to a 2012 report by the California Geologic Survey (CGS), "In the last decade, the highest prices [sic] aggregate in the state have been in the San Diego area, where PCC-grade sand is in short supply" (CGS 2012). By implementing the proposed project, average haul distance would be reduced to approximately 30 miles.[2] This reduction in VMT from haul trucks would result in a substantial reduction in haul truck fuel consumption (as discussed previously, a reduction of approximately 1.0 million gallons and 0.9 million gallons of diesel based on calendar years 2017 and 2027 fuel efficiency levels, respectively, with implementation of the proposed project). As implementation of the project would result in fuel savings by providing locally sourced aggregates, the project would not result in the wasteful, inefficient, or unnecessary use of transportation fuels during its construction or long-term operation, and impacts would be less than significant.

[2] Reduction in haul truck emissions was determined based on the difference in vehicle miles traveled currently to get aggregate from the current aggregate mines and the vehicle miles traveled anticipated from the location of the project within the central portion of San Diego County. The determination of reduction in vehicle miles traveled is detailed in Appendix M, Greenhouse Gas Emissions Technical Report.

3.10.1.5 Impacts on Energy Plans and Policies

As discussed previously, an objective of the project is to recover PCC-grade construction aggregates in a safe and efficient manner. To that end, the project would achieve this objective by providing locally sourced aggregates within the County. Currently, sand and aggregate is transported into the County from as far as way as Irwindale, California; Thermal, California; and Ensenada, Mexico (CalCIMA 2015) resulting in an average haul distance of up to 90 miles. According to a 2012 report, the CGS has confirmed that the San Diego area is in short supply of PCC-grade sand (CGS 2012). By implementing the proposed project, average haul distance would be reduced to approximately 30 miles.[3] This reduction in VMT from haul trucks would result in a substantial reduction in haul truck fuel consumption (as discussed previously, a reduction of approximately 1.0 million gallons and 0.9 million gallons of diesel based on calendar years 2017 and 2027 fuel efficiency levels, respectively, with implementation of the proposed project).

The State of California and regional transportation planning agencies, including the San Diego Association of Governments (SANDAG) are require to adopted a Sustainable Communities Strategy (SCS) pursuant to Senate Bill (SB) 375 as part of the State's larger effort to reduce statewide greenhouse gas (GHG) emissions. The key goal of the SCS is to achieve per capita GHG emissions reduction targets through integrated land use and transportation strategies. The focus of these reductions is on transportation and land use strategies that influence VMT. Reducing per capita VMT not only results in per capita GHG emissions reductions, but also has co-benefits of reducing associated per capita transportation fuel demand.

The State has also adopted a Renewables Portfolio Standard (RPS), first established in 2002 under SB 1078. The RPS requires retail sellers of electric services, including SDG&E, to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030 (CPUC 2018). The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) jointly implement the RPS program.

In addition, the County's General Plan (March 2011) contains policies for reducing energy, including the following:

- Reduce vehicle trips generated, gasoline/energy consumption, and GHGs (see Policy COS-14.1).

[3] Reduction in haul truck emissions was determined based on the difference in vehicle miles traveled currently to get aggregate from the current aggregate mines and the vehicle miles traveled anticipated from the location of the project within the central portion of San Diego County. The determination of reduction in vehicle miles traveled is detailed in Appendix M, Greenhouse Gas Emissions Technical Report.

- Reduce non-renewable electrical and natural gas energy consumption and generation (energy efficiency) (see Goal COS-18).

As discussed in Section 3.3, Greenhouse Gas Emissions, implementation of the project would be consistent with the goal of the SCS. In turn, the project would also achieve co-benefits of substantially reducing transportation fuel demand with respect to supplying aggregate within the County. Therefore, the project would be consistent with the County's General Plan policies applicable to reducing VMT and transportation fuel consumption.

The project would also result in temporary electrical demand for the construction trailers and processing plant associated with the mining activities. The electricity demand would be for required activities in order to successfully implement the project and would only occur during implementation of the project. Once project activities are completed within 16 years, the project would no longer require electricity. Electricity would be supplied by SDG&E, which would be required to supply electricity from renewable sources consistent with the RPS goals. SDG&E engages in ongoing planning efforts that involve power use projections, system upgrades, changes to their respective power mix, and procurement of energy supplies (Sempra 2016) and the project would not conflict with SDG&E's ability to meet the RPS goals. Furthermore, as discussed in Chapter 1.0, Project Description, Location, and Environmental Setting, the project would incorporate energy efficient designs including installing shielded night lighting around the processing plant for security purposes that would be designed to minimize glare and reflection onto neighboring areas. Pole-mounted sodium, metal halide, or fluorescent lighting would be installed. This lighting would minimize energy use, and in combination with cut-offs, reduce light pollution.

Based on the above, the project would be consistent with the County's General Plan policies applicable to conserving energy, and impacts would be less than significant.

3.10.1.6 Impacts on Energy Supplies

Electricity

SDG&E, a subsidiary of Sempra Energy, provides energy service to 3.6 million people through 1.4 million electric meters and 873,000 natural gas meters in San Diego and southern Orange counties (SDG&E 2016). According to CEC, SDG&E consumed approximately 19.722 billion kWh of electricity in 2015 (CEC 2016). SDG&E produces and purchases energy from a mix of conventional and renewable generating sources. **Table 3.10-1** shows the electric power mix that was delivered to SDG&E's retail customers in 2015 compared to the statewide power mix. SDG&E monitors and maintains a vast electricity system. To ensure energy availability and reliability for existing and future consumers, SDG&E engages in ongoing planning efforts that involve power use projections, system

upgrades, changes to their respective power mix, and procurement of energy supplies (Sempra 2016).

Relative to SDG&E's consumption of approximately 19.722 billion kWh of electricity in total in 2015 (CEC 2016), the project's annual electricity demand of approximately 1,504,102 kWh per year would be equivalent to approximately 0.0076 percent of SDG&E's 2015 consumption. The project's electricity demand would be temporary and used for the construction trailers and processing plants associated with the mining activities. The electricity demand would be for required activities in order to successfully implement the project, and would only occur during implementation of the project. Once project activities are completed within 16 years, the project would no longer require electricity. Therefore, given that the project's electricity demand is temporary, is required for necessary project activities, and is a very small fraction of SDG&E's capacity, the project would not place a significant demand on energy supplies or require a substantial amount of additional capacity. Furthermore, as stated above, SDG&E routinely engages in ongoing planning efforts to ensure the procurement of energy supplies (Sempra 2016). Therefore, the project would result in a less than significant impact on electricity supplies.

Transportation Fuel

Fuel consumption data is available 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 approximately 14.4 billion gallons by the transportation sector (USEIA 2015a). California consumed a total of 80,487 thousand barrels of diesel fuel for transportation, which is equivalent to a total annual consumption of approximately 3.4 billion gallons by the transportation sector (USEIA 2015b).

Transportation fuels would be provided by local or regional suppliers, vendors, and patrons. As discussed previously, implementation of the project would result in an annual reduction of approximately 7.2 million VMT from providing locally sourced aggregate. Based on an average fuel economy of approximately 5.5 miles per gallon and 6.2 miles per gallon, respectively, for HHDT diesel-fueled trucks derived from the CARB EMFAC2014 model, implementation of the project would result in a reduction of approximately 1.0 million gallons and 0.9 million gallons of diesel based on calendar years 2017 and 2027 fuel efficiency levels, respectively. As implementation of the project would result in fuel savings by providing locally sourced aggregate, the project would not place a significant demand on transportation fuel supplies or require a substantial amount of additional capacity. Therefore, the project would result in a less than significant impact on transportation fuel supplies.

3.10.1.7 Cumulative Impacts on Energy

Electricity

The geographic context for the cumulative analysis of electricity is SDG&E's service area. 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, including San Diego and southern Orange Counties (SDG&E 2016). Growth within this geography could increase the demand for electricity and the need for infrastructure, such as new or expanded facilities. Future development projects in the SDG&E service area would be required to incorporate energy efficiency designs in accordance with State and local regulations, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate mitigation measures, as necessary. Under the State's GHG regulations, the State is pursuing stringent energy efficiency regulations such as zero net energy standards for single-family and low-rise residential by 2020 and for commercial and high-rise buildings by 2030. Future development projects would be required to comply with these regulations as applicable. As a result, the project, in combination with future development projects, would not have a cumulatively considerable impact on existing energy resources either individually or incrementally when considered with the anticipated growth in the service area. Accordingly, the impacts related to electricity consumption would not be cumulatively considerable, and thus would be less than significant.

Transportation Fuel

Growth from future related projects in the region could increase overall VMT and transportation fuel demand in the region; however, the effect on transportation fuel demand would be minimized by future improvements to vehicle fuel economy pursuant to federal and state regulations. By 2025, passenger vehicles and light-duty trucks are required to achieve 54.5 mpg based on United States Environmental Protection Agency (USEPA) measurements, which is a 54 percent increase from the 35.5 mpg standard in the 2012-2016 standards. In addition, the fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by the USEPA and the National Highway Traffic Safety Administration (NHTSA). The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018 and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type (USEPA 2011). The USEPA and NHTSA also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type (USEPA 2016). Compliance with these standards would reduce transportation fuel consumption in future years as newer model year trucks replace older trucks. Furthermore, according to the USEIA's

International Energy Outlook 2016, the global supply of crude oil, other liquid hydrocarbons, and biofuels is expected to be adequate to meet the world's demand for liquid fuels through 2040 (USEIA 2016). Therefore, as the project would reduce VMT and transportation fuel demand associated with supplying locally sourced aggregate within the County, and as future development would achieve fuel efficiency gains, the project would not have a cumulatively considerable impact related to transportation energy, and impacts would be less than significant.

Table 3.10-1: Electric Power Mix Delivered to SCE and SDG&E Retail Customers in 2015

Energy Resources	2015 SDGE Power Mix (Actual) [a]	2015 CA Power Mix [a]
Eligible Renewable	35%	22%
• Biomass & waste	2%	3%
• Geothermal	0%	4%
• Small hydroelectric	0%	1%
• Solar	18%	6%
• Wind	15%	8%
• Coal	0%	6%
Large Hydroelectric	0%	5%
Natural Gas	54%	44%
Nuclear	0%	9%
Other	0%	0%
Unspecified sources of power [b]	11%	14%
TOTAL	**100%**	**100%**

[a] California Energy Commission, Utility Annual Power Content Labels for 2015. Available: http://www.energy.ca.gov/sb1305/labels/. Accessed August 2017. Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.

[b] "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

SOURCE: CEC 2016

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