

ENERGY TECHNICAL MEMORANDUM

To: Chris Jacobs, Principal Planner, City of Santee
From: Sharon Toland, Senior Technical Specialist, and Kelsey Hawkins, Air Quality and Greenhouse Gas Analyst, Harris & Associates
RE: Energy Technical Memorandum for the Santee Cannabis Business Ordinance
Date: June 3, 2022

This memorandum was prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) to assess the consumption of energy associated with implementation of the proposed Santee Cannabis Business Ordinance (Ordinance or project).

The City of Santee (City) proposes a comprehensive Ordinance amending the City's Municipal Code to regulate cannabis land uses consistent with the Medicinal and Adult-Use of Cannabis Regulation and Safety Act (MAUCRSA) and the Control, Tax, and Regulate the Adult Use of Marijuana Act (AUMA). The Ordinance would implement the provisions of the MAUCRSA to accommodate the needs of people with medical illnesses who need cannabis for medicinal purposes as recommended by their healthcare providers and to provide access to those resources. It would also provide access to adult-use cannabis for people aged 21 and over as authorized by the AUMA while imposing sensible regulations on the use of land to protect City residents, neighborhoods, and businesses from disproportionately negative impacts. The Ordinance would regulate the commercial cultivation, processing, manufacturing, testing, sale, delivery, and distribution of cannabis and cannabis products in a responsible manner to protect the health, safety, and welfare of the residents of the City and to enforce rules and regulations consistent with state law and in a fair and equitable manner.

Cannabis facilities would not be located within 900 feet of sensitive receptors, including kindergarten through 12th grade schools, commercial daycare centers, youth centers, religious locations, or parks. It is anticipated that certain types of cannabis facilities would only be allowed in the Light Industrial (IL), General Industrial (IG), and General Commercial (GC) zones in the City, subject to the City's siting requirements (see Figure 1, Areas Allowing Cannabis Facilities by Zone).

The project does not propose any specific new development; however, it would allow cannabis facilities to be permitted in the City, consistent with the Ordinance. For this analysis, a realistic, worst-case scenario was developed to evaluate the project's impacts. A total of 20 facilities—retail (two locations total), microbusiness with retail (two locations total), microbusiness without retail (two locations total), manufacturing (four locations total), testing (four locations total), and distribution (six locations total)—were assumed to be permitted by the Ordinance. At this time, the specific locations of the retail, microbusiness, manufacturing, testing, and distribution sites are not known, although they would occur in the Light Industrial (IL), General Industrial (IG), and General Commercial (GC) zones. The anticipated proposed land use square footage and allowed zones permitted by the Ordinance are identified in Table 1, Cannabis Facilities Assumptions.

**Table 1. Cannabis Facilities Assumptions**

Land Use Type	Allowed Zones	Square Footage per Facility	Proposed Santee Facilities	Total Square Footage per Land Use Type
Storefront Retail + Delivery	GC, IL, IG	5,000	2	10,000
Microbusiness with Retail (includes retail, distribution, and manufacturing – no cultivation)	GC, IL, IG	10,000	2	20,000
Microbusiness without Retail (includes cultivation, ¹ manufacturing, and distribution)	IL, IG	15,000	2	30,000
Manufacturing	IL, IG	3,000	4	12,000
Testing	IL, IG	2,500	4	10,000
Distribution	IL, IG	2,000	6	12,000
Total	—		20	94,000

Notes: GC = General Commercial; IG = General Industrial; IL = Light Industrial

¹ Definition of a microbusiness includes a maximum cultivation canopy of 10,000 square feet.

Background

Total energy demand of cannabis operations depends heavily on the types of cultivation, manufacturing, or other activities and the types of equipment required. Indoor cultivation involves more equipment that tends to have much higher energy demands (e.g., high-intensity light fixtures, climate control systems). Specific energy uses in indoor grow operations include high-intensity lighting, dehumidification to remove water vapor and avoid mold formation, space heating or cooling during non-illuminated periods and drying processes, preheating of irrigation water, and ventilation and air conditioning to remove waste heat. Lighting is the greatest contributor to energy use (County of Sonoma 2021; County of Santa Barbara 2017). Comparatively, other commercial cannabis operations (storefront or non-storefront retail with optional delivery, testing, and distribution) tend to involve typical commercial equipment and processes that may require minor to moderate amounts of electricity similar to commercial and light industrial uses allowed under current project area zoning.

Thresholds of Significance

Based on Appendices G and F of the CEQA Guidelines, implementation of the project would be considered to have a significant impact if the project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Impact Analysis

The Appendix G thresholds related to energy use are addressed separately below.

Energy Consumption

Anticipated development of new cannabis facilities through implementation of the Ordinance would result in an increase in energy demand compared to existing conditions. Construction of facilities associated with future cannabis cultivation projects would require the use of fossil fuels (primarily gasoline, diesel, and motor oil) for excavation, grading, and vehicle travel. The precise amount of construction-related energy consumption cannot be calculated in the absence of specific proposed projects. However, cannabis facilities are anticipated to be relatively small in size, and energy use during construction would be short term, temporary, and typical of other

commercial and industrial facilities. Therefore, construction of future cannabis facilities would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

The Sustainable Santee Plan: The City's Roadmap to Greenhouse Gas Reductions (SSP) includes a Project Consistency Checklist (Checklist) that is intended to be a tool for development projects to demonstrate consistency with the SSP during operation (City of Santee 2020). The Checklist includes an evaluation of the project's design features for compliance with the SSP's greenhouse gas (GHG) emissions reduction measures, including energy efficiency and fuel use reductions. Future cannabis facilities would be required to comply with the SSP and California Building Code regulations related to energy efficiency. Facilities would be subject to the Title 24 Building Energy Efficiency Standards. Additionally, the Ordinance would allow indoor cannabis cultivation as part of a permitted microbusiness in an industrial zone. Indoor cultivation would be restricted to 10,000 square feet or less of canopy growth and would be required to implement the state regulations for cannabis cultivation, which are in Title 3, Division 8, Chapter 1, of the California Code of Regulations, that are related to energy efficiency and conservation, requiring indoor cultivation facilities to report electricity usage and reduce their emissions if they are greater than their local utility's GHG emissions intensity. Therefore, compliance with existing regulations would reduce energy use from future cannabis facilities so that it would not be wasteful, inefficient, or unnecessary consumption. This impact would be less than significant.

Applicable Energy Plan

The SSP is a qualified GHG emissions reduction plan in accordance with the CEQA Guidelines, Section 15183.5 (City of Santee 2020). Because the SSP is an adopted, qualified GHG reduction plan, it is the applicable plan for renewable energy or energy efficiency for the project.

The SSP includes the Checklist, which is intended to be a tool for development projects to demonstrate consistency with the SSP. The Checklist is part of the SSP implementation and monitoring process and supports the achievement of individual GHG reduction measures and the City's goals to conserve and reduce the consumption of resources, including fuel and energy. Projects that meet the requirements of the Checklist are considered consistent with the SSP and would be consistent with the City's energy efficiency and use reduction goals. The Checklist includes a two-step process to determine if a project would result in a GHG impact. Step 1 consists of an evaluation to determine the project's consistency with existing Santee General Plan land use and zoning designations for the project area, which demonstrates consistency with the SSP GHG forecast. Step 2 consists of an evaluation of the project's design features for compliance with the SSP's GHG emissions reduction measures.

Regarding Step 1, new cannabis facilities would generally be consistent with planned commercial and industrial land uses for the project area identified in the Santee General Plan. Operational energy demand would occur from gasoline consumption from transportation (vehicle trips) and electricity and natural gas usage for cultivation, processing, and distribution, but would generally be consistent with forecasted energy use. However, a cannabis facility with cultivation would have the potential to result in wasteful, inefficient, or unnecessary consumption of energy resources during operation if it would use significantly more energy than a commercial building of the same size that was planned for in the SSP GHG forecast.

However, because cannabis cultivation facilities tend to have a higher energy demand than typical commercial or industrial facilities, energy use from new cultivation facilities would likely result in higher energy demand than was forecasted for planned commercial or industrial uses in the SSP (County of Santa Barbara 2017). Because facility locations and operation specifications are unknown, future cannabis facilities with cultivation would have the potential to exceed the energy demand forecasted in the SSP. Therefore, impacts from new cultivation facilities would be potentially significant. The remaining allowable cannabis facilities (storefront or non-storefront retail with optional delivery, manufacturing, testing, and distribution and microbusinesses without cultivation) would have an energy demand typical of other planned commercial and industrial facilities and would not result in conflict with Step 1 of the SSP Checklist.

Step 2 includes various vehicle use and energy reduction measures that future cannabis facilities would be subject to. This includes requiring new commercial buildings to meet or exceed California Green Building Standards Tier 2 Voluntary Measures, such as obtaining green building ratings, including Leadership in Energy and Environmental Design

(LEED), Build It Green, or Energy Star building certifications. Measures also include decreasing energy demand by reducing the heat island effect through tree planting and enhanced cool roof installation. Transportation measures include reducing vehicle miles traveled by requiring future projects to install sidewalks, bike lanes, and electric vehicle chargers and implement traffic flow improvements as applicable. Clean energy measures include installing at least 2 kilowatts per square foot of building area of photovoltaic solar systems on commercial buildings unless the installation is infeasible due to poor solar resources. Future cannabis facilities would be required to incorporate each of these applicable energy reduction measures and would not result in a conflict with Step 2 of the SSP Checklist.

Therefore, the project would not result in a conflict with the SSP, with the potential exception of cultivation facilities. Compliance with existing state regulations would reduce energy use from cultivation but may not reduce energy use to the level assumed for other commercial and light industrial uses in the SSP forecast. Additionally, the SSP demonstrates how the City achieves its fair share of emissions reductions to meet statewide emissions reduction targets. Through consistency with the SSP, the project would also be consistent with statewide reduction goals established in Assembly Bill 32 and Senate Bill 32. However, cultivation facilities would have the potential to conflict with Step 1 of the SSP and result in a potentially significant impact. This impact would be potentially significant.

Mitigation Measures

Mitigation Measure ENE-1, Sustainable Santee Plan Forecast Consistency, would be implemented for future cannabis facilities with cultivation to demonstrate energy demand that is in line with the forecast assumptions of the SSP. This mitigation measure was also identified to mitigate potential GHG emissions impacts in the Greenhouse Gas Emissions Technical Memorandum prepared by Harris & Associates (Harris 2022).

ENE-1: Sustainable Santee Plan Forecast Consistency. Before the approval of a cannabis business permit to operate a cannabis facility with cultivation, the applicant shall demonstrate that energy demand from the proposed cannabis facility would be consistent with a typical commercial or industrial use (1.08 kilowatt-hours per year per square foot)¹ as forecasted in the Sustainable Santee Plan. Energy demand may be reduced through energy-efficient building design, use of energy-efficient equipment, or installation of solar panels to offset energy demand.

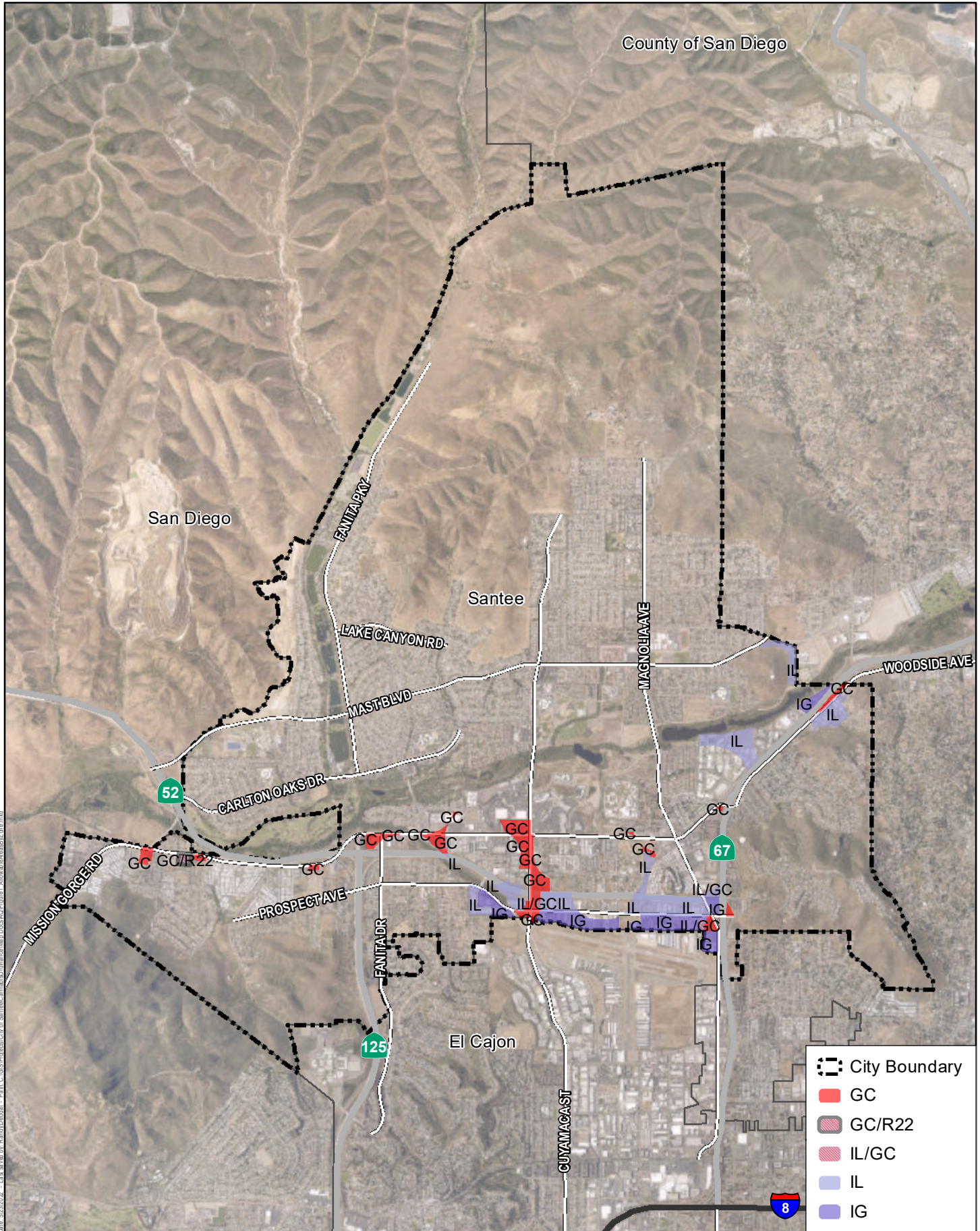
Summary

Construction and operation of future cannabis facilities would not result in a wasteful, inefficient, or unnecessary consumption of energy resources. However, because the energy demand of cannabis cultivation facilities is anticipated to be higher than typical commercial and industrial uses estimated under the SSP, Mitigation Measure ENE-1 would be implemented to require all future cannabis cultivation facilities to demonstrate consistency with Step 1 of the SSP Checklist. Therefore, with implementation of Mitigation Measure ENE-1, potential energy impacts related to a conflict with an applicable energy plan would be reduced to a less than significant level.

References

- CAPCOA (California Air Pollution Control Officers Association). 2020. California Emissions Estimator Model. Version 2020.4.0.
- City of Santee. 2020. Sustainable Santee Plan: The City's Roadmap to Greenhouse Gas Reductions. Adopted January. Accessed June 2022. <https://www.cityofsanteeca.gov/home/showdocument?id=18422>.
- County of Santa Barbara. 2017. Cannabis Land Use Ordinance and Licensing Program Final Environmental Impact Report. December.
- County of Sonoma County. 2021. Sonoma County Cannabis Land Use Ordinance Update and General Plan Amendment. February.
- Harris (Harris & Associates). 2022. Greenhouse Gas Emissions Technical Memorandum for the Santee Cannabis Business Ordinance.

¹ Based on California Emissions Estimator Model (CalEEMod) version 20.4.0 defaults, typical energy demand is 1.08 kilowatt-hours per year per square foot (CAPCOA 2020).



Source: SanGIS 2022; ESRI 2022

This page intentionally left blank.