

Cannabis Odor Abatement Plan

April 23, 2021

Prepared for:

Jason Hilldenbrand

Site Address: 2300 Santa Rita Rd Lompoc, CA

Prepared by:

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April 23, 2021

Santa Rita Holdings

Site Address: 5423 Rancho Santa Rita Rd Lompoc, CA **Re: Cannabis Odor Abatement Plan**

Ladies and Gentlemen,

This Cannabis Odor Abatement Plan has been prepared in compliance with the Inland Zoning Ordinance requirements and the regulations set forth for Commercial Cannabis regulations. This plan includes the evaluation of a proposed odor abatement system to reduce and/or eliminate cannabis-related odors. The objective of the system is to eliminate odors from reaching receptors within residential zoned properties closest to the subject site.

Site Description -

The subject site is located at 2300 Santa Rita Rd, Lompoc, CA; APN: 099-110-060. The subject property will include cultivation of approximately 2.54 acres of cannabis. The cultivation operations will include outdoor cultivation (0.55 acre), hoop house cultivation (1.88 acres), and a nursery (0.11 acre). Cultivation would take place in raised beds in the ground, and 30-gallon pots will be used in areas in which raised beds are not practical. No cultivation will occur within the 50 ft. ESH setback (a reduction from 100-foot required in a rural setting substantiated in the Biological Resource Assessment), hoop structures will adhere to the 100-foot ESH setback and the cannabis activities in general will adhere to the 50-foot setback from the property lines. Hoop house coverings will be taken off as needed during the winter months to avoid storm water channeling. Fiber rolls are proposed to assist with capturing sediment and runoff from the site. There will be 2-3 harvests per year, taking place between 6 am and dusk. Plants will be chopped in the field, binned, and put into a refrigerated truck for transport to a processing facility. All drying and processing will be done off-site.

Since the project is so far removed from any neighbors, and the size of the project is relatively small, we do not expect odor to be an issue. Prevailing winds blow west to east, away from neighboring residences. The applicant will not be drying or processing on site, which is the main source of odor.

The hoops will be approximately 14 ft high by 20 feet wide with various lengths and will be seasonally covered with a plastic/poly. The metal structures will remain in place year-round with the plastic/poly removed as needed and during the raining season to allow for rainwater to percolate into the soil and prevent run-off.



Site improvements associated with the project for compliance with the Santa Barbara Zoning Ordinance, Santa Barbara County Program Environmental Impact Report (PEIR) for cannabis activities, the County Environmental Health & Safety Department, include 'dark sky' compliance exterior security lighting, security fencing and cameras, the installation of three 5000-gallon irrigation water storage tanks, and the installation of hoop houses. Water is provided by Vista Hills Mutual water company. Septic tanks are serviced by Lee and Neal Septic. Electricity for the home is provided through PG & E's solar program. PG &E will be providing electricity for security cameras and security lights where possible. A small submersible pump that requires electricity will be used to mix nutrients in the nutrient tank for the nursery. Gravity will be used to feed the rest of field crop. No electricity will be used inside hoop houses. There is no grading proposed for this project.

The onsite residence will be utilized as a residence with the main permeant employees living at the residence. There are bathroom facilities inside the home that are on a septic tank and they will provide the facilities for the permanent employees. Temporary/seasonal employees will be provided chemical toilets.

The location of the subject site is at the end of a very long private road with a diminishing easement, and as such the project is not visible from a public view so no screening is proposed. Adjacent land use is cattle grazing.

The existing security fencing is 8-foot deer fence securing the cultivation area. The security fence is currently located within the setback to prevent cattle from degrading and eroding the top of bank. Security cameras are strategically placed at the secured cannabis entry and around the canopy area. All exterior lighting will be dark sky compliant on motion sensors and will illuminate the entrance gate to the premises, and the driveway between the gate and the house. The cannabis operation will be served by Vista Hills Mutual Water Company and augmented by 6 water tanks.

There will be no noise generating equipment or environmental control systems used inside or outside the hoop houses or in the nursery area.

The subject property would be accessed by way of Highway 246 to Santa Rita Road. Vehicle trips generated by incoming and outgoing delivery of supplies or product would average one trip per day. Daily trips are minimized due to the permanent employees residing in the home. Temporary/seasonal employees will be utilized but these seasonal workers will carpool or deliver to the site via contractor labor vans to the facility.

It is anticipated that the subject property will produce three crops per year. The first crop will get planted into the ground in April with harvesting in the last two weeks of June. The second crop will get planted into the ground in July with harvesting in the last two weeks of October. The harvest will be immediately placed in plastic bags and stored in containers placed in a refrigerated truck.





Preventative Measures and mitigation

The house hoops will be kept closed when the winds blows from the east to the west. Since this is not the normal direction for the wind to blow and normally occurs in the winter months (no cultivation) this should be infrequent. Odiferous plants and flowers such as lavender are a common and natural masking agent used in odor control in many industrial industries. The applicant will plant lavender and other aromatic plants along the western edge of the property to help mask any cannabis odors at the property line. Odor intensities significantly reduce outdoors the further away from the source.

Preliminary Air Study

An internal and preliminary study was performed in 2019 by Nate Seward, PE, CIH involving the testing of cannabis-related VOCs and the collection of PID (Photo-Ionization Detector) results at two separate cannabis greenhouse properties in Carpinteria, CA. Part of the air study involved collecting air data at various distances downwind from a very strong point source which contained 4-5 dozen cannabis plants that were in the curing/drying stage. Sampling included the collection of air samples to be analyzed for VOCs along with a hand held PID to document the volatile



organic compounds and other gases present. The following Table are the PID readings recorded from our study.

 Table 1: PID readings downwind from point source

*Downwind and Distance from source	PID Reading	Odor observation
Inside Container (at source)	5,500	Very strong
10' downwind from source	1,020	Strong
20' downwind from source	155	Light/faint
30' downwind from source	250	Light/faint

*An axial air mover was used at the back of the container to push the odors toward our sampling equipment to represent a fairly aggressive wind speed.

The PID readings indicate a significant reading at the source which was expected based on the very strong odors being emitted. However, at 10' from the source the odor was still described as strong, however the readings suggested a reduction to approximately 20% of the source intensity. At 20' & 30' from the source, the readings dropped to 3% 5% of the original source odor. (Note: the slight increase of the PID reading at 30' compared to 20' were likely influenced by another shipping container nearby that contained more cannabis plants). The reduction in VOCs the further from the source is not surprising as the influence of mixing and dilution occurs the further from the source. It should be noted that this worse-case scenario also did not utilize any odor control technologies inside the curing container.

Residential Zones

The nearest residential zone appears to be approximately 2.8 miles from the subject site to the west. However, according to wind data located at the Lompoc airport, the general wind direction within the area blows from the west to the east. The nearest residential zone east of the property is the City of Buellton which is 9+ miles from the subject site.



Initial Complaint

Upon notification of an odor complaint, either from a public member directly or through a complaint that is received from an agency, we will perform an onsite assessment. The assessment will include an evaluation of the current wind conditions, review of the onsite meteorological data and odor observations upwind of the site. The applicant will document this data both at the time of the initial complaint and the assessment.

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Any complaint of cannabis odor emanating from the property will be documented on a form or in a manner prescribed by the cultivation manager. Completed forms will be forwarded to the Record Keeping Manager. The form or documentation will contain, at a minimum:

- 1. The date of the complaint.
- 2. The name of the employee reporting an odor problem.
- 3. The name and contact information of the person who reported the odor if not an employee, if he/she chooses to disclose that information.
- 4. The date, time, and frequency of the noted odor emission.
- 5. The distance from the property that the odor was detected or approximate location of odor detection.
- 6. The outcome of the inspection of the incident, including confirmation of no further odors being detected.
- 7. The nature and date of any corrective action that was taken in the course of the inspection.

Resolution

An odor complaint will be considered resolved when:

- 1. The cultivation manager confirms that the issue has been effectively inspected and any necessary corrective measures have been taken, or the cultivation manager determines that there was no odor escaping the property that could be detected by a person of normal sensitivity.
- 2. The complaint response documentation is complete and filed.
- 3. Any official enforcement action is completed or resolved to the satisfaction of the agency or department initiating the action, if applicable.

Conclusions

Based on compliance with the required setbacks from the odor emitting areas to the property line (50' - 100') in conjunction with planting of various masking plants, flowers and vegetation along, it is unlikely that odors will be experienced beyond the property line. In addition, the nearest residential zones are miles from the subject site which significantly lowers the possibility of experiencing cannabis odors within these communities.



Limitations

It should be noted and understood that although cannabis activities have been legalized and permitted within the County, it is expected that illegal and unpermitted commercial and personal growing operations will continue within the immediate area. These operations are not complying with State or County regulations, particularly as it relates to odor abatement and therefore malodor complaints by the public may be incorrectly directed at the applicant. Cannabis odors, whether "real" or "psychological" are subjective and interpretive, depending on the receptor. Generally, the intensity of an odor will dissipate over distance and therefore in theory, the further the receptor is from the emitting-source, the less intense the odor generally is observed. If you have any questions or concerns regarding the information provided, please do not hesitate to call us at 805.432.4888.

Respectfully submitted,

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