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To: Board of Supervisors

CC: CEO's Office, Public Health Department Director

From: Charity Dean, Public Health Officer

Date: September 17, 2017

Re: Health Considerations in Land Use Options for Cannabis Cultivation

Specific health-related concerns have been raised by Santa Barbara County community members regarding cannabis cultivation operations:

1. **Cannabis cultivation odors causing allergy-like symptoms**

While the medical literature on this is sparse, published case studies and a 2015 literature review do suggest the following:

- 1) Inhalation exposure to *Cannabis sativa* (particularly during pollination season) may cause
 - a) Asthma exacerbations
 - b) Allergic rhinitis (runny nose)
 - c) Conjunctivitis (red eyes)
 - d) Sinusitis (inflammation of the sinuses)
 - e) Wheezing and difficulty breathing
 - f) Urticaria or hives (generalized raised skin rash and redness)
 - g) Periorbital angioedema (swelling around the eyes)
- 2) Exposure to second-hand cannabis smoke may cause
 - a) Severe anaphylactic reaction
 - b) Bronchitis
 - c) Pharyngitis (sore throat)
 - d) Sinusitis (inflammation of the sinuses)
- 3) Handling of *Cannabis* plants may cause
 - a) Contact dermatitis (skin inflammation at the site of contact)
 - b) Urticaria or hives (generalized raised skin rash and redness)

It is difficult to objectively quantify how common or rare these reactions are, as they have not been well reported in the medical literature up to this point. Publications discussing them all use the word “rare”. After reviewing the literature and discussing the topic with physicians specializing in Allergy & Immunology, I believe that reported allergic reactions to passively inhaled cannabis are a legitimate health concern and will be reported with higher frequency in medical literature as more states legalize recreational cannabis.

2. Greenhouse lighting at night disturbing normal sleep-wake cycles

A healthy intrinsic circadian rhythm is dependent upon normal sleep-wake cycles. These cycles are significantly regulated by the hormone melatonin which is inhibited by bright lights. Even partial exposure to exogenous light pollution at night can interfere with melatonin secretion and the normal sleep-wake cycle. If greenhouse lighting is close enough to residences that it comes through windows during normal sleep hours, this could have a negative health effect on individuals within those residences.