

Comment Letter A

November 13, 2017

San Mateo County Planning & Building Department
455 County Center, Second Floor
Redwood City, CA 94063

Attn: Michael Schaller, Project Planner, via e-mail to mschaller@smcgov.org
Re: Public Comment on Notice of Intent to Adopt Negative Declaration, file MNA
2017-00023

To Whom It May Concern:

I have reviewed the Notice of Intent described above, and would like to enter comments into the record.

The assessment of the impact of the proposed ordinance relies heavily on the proposed text of the ordinance,¹ which falls short in a crucial way: It fails to define what a "greenhouse" is, except by inference (see Proposed Ordinance 5.148.020, "Definitions"). This is a pretty important omission, since "greenhouses" are the only structures permitted for cultivation. By inference (rather than in the text of the ordinance) the definition is any structure where any amount of natural light is used, a "Mixed-Light Cultivation" as defined in the ordinance [see 5.148.0209(v)]. Technically, this could be an existing warehouse with a skylight.

This omission propagates into the published Environmental Evaluation Checklist in several ways. First, in the checklist under "1. Aesthetics" part (d) the proposed ordinance states,² in part, that:

All lighting shall be fully shielded, downward casting, and not spill over onto other structures, other properties or the night sky. All operations shall be fully contained so that little to no light escapes. Light shall not escape at a level that is visible from neighboring properties or the public right of way between sunset and sunrise.

It's physically impossible for a "conventional" greenhouse to satisfy this requirement, many existing structures would already be in violation—Glass works both ways regardless of the ordinance. Light pollution should be classified as a "Potentially Significant Impact."

¹ Proposed Ordinance, "*Commercial Cultivation of Cannabis*", retrieved 11/13/17 from <http://cmo.smcgov.org/sites/cmo.smcgov.org/files/Draft%20Ordinance%20-%20Cannabis.pdf>

² *Ibid.*, Section 5.148.160(h)

Second, in Section 3, "Air Quality", many existing greenhouses (of the conventional type) do not currently employ odor control (from personal experience). These environmental impacts would require mitigation before the ordinance could be implemented, so should be classified as "Significant Unless Mitigated" because the ordinance fails to address the operational specifications of ventilation system.³ Further, all sources in this section cite an outdated document (the 2010 Bay Area Clean Air Plan). That is not the most current version, which was released on April 19, 2017.⁴ The differences are quite important, specifically, the latest document considers noxious odors (even if not toxic) in a more in-depth manner than the earlier version. Because cannabis cultivation at scale releases unpleasant odors,⁵ such impacts need to be thoroughly addressed in his document.

There are additional deficiencies. In Section 7.a, "Climate Change" again cites the ordinance as a source, but states (without support) that there is "no evidence" that cannabis cultivation is any different than any other crop. Cannabis cultivation is significantly more energy and carbon intensive than other crops,⁶ and the air handling and light restriction requirements (see above) imposed by the ordinance will further increase the energy and carbon intensity of cannabis cultivation relative to other crops. In addition, if worthless agricultural residues (e.g., leaves) are composted or incinerated, there will be a concomitant increase in methane or CO₂ emissions commensurate with the intensity of the cultivation. The finding here should be "Potentially Significant Impact" unless citations to the contrary are provided.

In Section 9.b, under "Hydrology and Water Quality", the ordinance is again cited as justification. The cited Section [5.148.160(r)] requires individual licensees to "...identify a water supply source adequate to meet all Cultivation uses on a sustainable basis for the Premises..." and, further, that "...water sources must be from a source permitted by the County." This item applies to individual applicants but does not address the remit of the Checklist, since, while each individual operation may identify a sustainable source (either groundwater or tap water) in the absence of other cultivation operations, the impact of the ordinance should consider the impact of the ordinance if all under- or unutilized greenhouses in the county were to claim the same source. It should be noted, here, that cultivation of cannabis requires approximately twice the amount of water as the cultivation of grapes,⁷ so this is a Potentially Significant Impact of the ordinance that

³ *Ibid.*, Section 5.148.130(f)

⁴ 2017 Clean Air Plan: Spare the Air, Cool the Climate, retrieved 11/13/17 from <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>

⁵ According to USA Today, in 2014, in Denver, Colorado, "about 30% of the smell complaints coming into Denver's code enforcement office are about the pot smell coming from the largely industrial areas away from most homes, schools and parks." See <http://usat.ly/1oqlXGK>, retrieved 11/13/17

⁶ Mills, E., "The carbon footprint of indoor Cannabis production", Energy Policy 46 (2012) pp. 58–67, <http://evanmills.lbl.gov/pubs/pdf/cannabis-carbon-footprint.pdf>, retrieved 11/13/17.

⁷ Ashworth, K. & Vizueté, W. "High Time to Assess the Environmental Impacts of Cannabis Cultivation", *Environ. Sci. Technol.*, **2017**, 51 (5), pp 2531–2533, retrieved from <http://pubs.acs.org/doi/full/10.1021/acs.est.6b06343> on 11/13/17.

could require the ordinance to restrict the number of permits it issues in order to comply with CEQA.

In Section 10, under "Land Use and Planning", the proposed ordinance is again cited ineffectively. The Environmental Impact needs to address whether the aggregate or individual commercial operations of 66,000 ft², each, will impact land use. In particular, for Section 10.d, at certain times throughout the season (particularly at harvest and trimming), will more than 50 people congregate? If so, the finding should be "Potentially Significant". Section 10.g cites a lack of additional demand on housing, with wishful thinking rather than any supporting data or analysis. The current unemployment rate in San Mateo County is 3.2%,⁸ so where are these workers coming from, and where are they going to stay? This is also pertinent to Section 13, "Population and Housing" and Section 15, "Recreation". [NOTE: Item 15.a should be rated the same as Item 13.a, regardless]

In Section 14.a-14.e, "Public Services" needs significantly more work. While it is widely known that cannabis flower is significantly more valuable than other agricultural crops, both in the legal market and on the black market, the only impacts that are considered are related to new construction, rather than on the impact of the ordinance itself, which primarily seeks to permit cultivation in existing construction. In other jurisdictions, significant increases in criminal activity (requiring additional police protection) have been noted.⁹ One particularly compelling statistic is as follows:

Data [in Denver, Colorado] from 2012 through September 2014 shows burglary as the most prevalent industry-related crime. Burglaries at licensed marijuana facilities are much higher than other retail outlets like liquor stores. Burglaries occurred at 13 percent of Denver's licensed marijuana facilities in 2012 and 2013, compared with just 2 percent of liquor stores, according to Denver Police Department crime analyst, D. Kayser.¹⁰

While this statistic pertains solely to retail, a similar effect at the cultivation/production facilities is to be expected. Thus, the underlying finding of "Less Than Significant Impact" is directly contradicted by experiences in other jurisdictions, and needs to be more fully justified, or modified to reflect a Potentially Significant Impact.

Section 15 ("Recreation") is related to population pressure, and was addressed previously.

⁸ The Daily Journal, 9/16/17, "State unemployment rate at 5.1 percent, San Mateo County at 3.2 percent", retrieved from http://www.smdailyjournal.com/news/local/state-unemployment-rate-at-percent-san-mateo-county-at-percent/article_7c3dc8b4-9a86-11e7-a0d2-6732b9dd6ae0.html on 11/13/17.

⁹ Police Foundation (Washington, DC), "Colorado's Legalization of Marijuana and the Impact on Public Safety: A Practical Guide for Law Enforcement", published 2015. Retrieved from https://www.nccpsafety.org/assets/files/library/Legalized_Marijuana_Practical_Guide_for_Law_Enforcement.pdf, 11/13/17.

¹⁰ *Ibid.*, p. 10.

In Section 16, “Transportation/Traffic”, the ordinance is again cited as authoritative, without any support. Again, cannabis cultivation is significantly more labor intensive than other forms of agriculture, requiring additional manpower, particularly at certain times of the year. The impact of this change needs to be much more thoroughly addressed in this document. The roadways, particularly in the Coastal parts of unincorporated San Mateo County, carry traffic of all types, and the impact of additional traffic burden on already-congested highways (particularly at peak tourist season) needs to be addressed.

In Section 18, "Utilities and Service Systems" suffers from many of the same defects cited earlier. It relies, without justification, on the text of the ordinance. Section 18.a deals with wastewater, yet its citation (back to the ordinance) is used for Section 18.b, which discusses water sourcing, not wastewater. Section 18.d asks whether additional water supplies will be needed—this is cited as "Less than Significant" with no indication of "significance", except citing that the ordinance requires applicants to identify a sustainable source of water. I addressed this deficiency earlier—this section should address additional requirements for tap water, if used, as well as groundwater. In Section 18.h & 18.i, the energy demands are not addressed at all, despite the documented increase in demand for electricity, when comparing cannabis cultivation to other crops. As with water resources, given the intensity of cultivation, and the potential number of sites in the county, you can't have all the permits citing the same "sustainable" source and simultaneously have it "sustainable" overall. As an additional source for the overall environmental costs of marijuana production, there is a thorough treatment of the public costs of cannabis cultivation in Washington State, prepared by UC Berkeley, that should be considered.¹¹

Finally, I believe there is an error in the “Responsible Agencies” section of the document (p. 33). On p. 2, item 12, the CalCannabis Cultivation Licensing Agency is listed—it should be listed as “Other” here as well.

In summary, I believe that the Environmental Evaluation of the Commercial Cannabis Cultivation Ordinance needs significantly more work, and that many of the findings should reflect the Potentially Significant Impact that cultivation will have in San Mateo County.

Respectfully,

A handwritten signature in black ink, appearing to read "Jonathan J. Burbaum". The signature is stylized with large loops and a long horizontal stroke at the end.

Jonathan J. Burbaum, PhD MBA

¹¹ O’Hare, M., Sanchez, D. L., & Alstone, P. “Environmental Risks and Opportunities in Cannabis Cultivation.” Published 6/28/13, retrieved from https://lcb.wa.gov/publications/Marijuana/SEPA/BOTEC_Whitepaper_Final.pdf on 11/13/17.

Comment Letter B

Ananda, Renee@Coastal

From: Ananda, Renee@Coastal
Sent: Friday, November 17, 2017 11:15 AM
To: mschaller@smcgov.org
Subject: File No. MNA 2017-00023 (Commercial Cannabis Cultivation Ordinance)

Dear Mr. Schaller (Mike),

Sorry for this long e-mail message. We wanted to make sure to meet your November 17, 2017 comment period deadline. I will forward a signed hard copy via U. S. mail. Thank you, RTA

We received (October 23, 2017) the Notice of Intent to Adopt Negative Declaration and Initial Study Environmental Evaluation Checklist for the proposed Commercial Cannabis Cultivation Ordinance. Thank you for the opportunity to submit our comments.

1. The proposed ordinance is for Commercial Cannabis Production allows this use to only be conducted in enclosed greenhouses located on all lands designated as "Agriculture" within the Coastal Zone. It will also apply to lands designated as "Open Space – Rural" and "Timber Production – Rural" on the County's General Plan Land Use Map, specifically where the documented land use includes commercial agricultural operations for three consecutive years prior to adoption of the proposed ordinance. The proposed ordinance requires protection of non-cannabis agricultural production. Commercial cannabis production cannot displace existing non-cannabis agriculture; but allows offset of new/proposed cultivation by re-locating the existing ag use to another area located on the same property; offset is on a 1:1 ratio, provided no conflict with applicable policies or regulations. Our comments are provided below.

Comment: Please clarify the 1:1 ratio. Is it by production operation regardless of the physical size or is it by size/physical area occupied; for example, the size of the new/cannabis greenhouse can only be offset by re-locating (on the same property) an equivalent-sized greenhouse dedicated to non-cannabis ag use?

2. Proposed Ordinance Section 5.148.160 (Cultivation Requirements) includes requirements for security fences, such as using native vegetation to screen from public views; fencing is required to be consistent with the surrounding area and cannot diminish the visual quality of the premises and surrounding area. This section specifies "Mixed-light Cultivation Sites (types of sites use light deprivation and/or a combination of natural and supplemental artificial lighting).

Comment: We suggest that you include language with respect to the LCP regarding the fencing requirements. Fencing and security measures should be designed and located such that they are consistent with the LCP including the policies for the protection of visual and scenic resources and sensitive species and habitats, especially those species that could be affected by installation of fencing which could prevent migration or movement to and from potential breeding and/or foraging habitats. Also perhaps please clarify why this regulation only applies to "Mixed-light Cultivation". Perhaps "Cultivation Sites" (defined as a location where Cannabis Cultivation occurs) could be used or added.

the fencing requirements. Fencing and security measures should be designed and located such that they are consistent with the LCP including the policies for the protection of visual and scenic resources and sensitive species and habitats, especially those species that could be affected by installation of fencing which could prevent migration or movement to and from potential breeding and/or foraging habitats. Also perhaps please clarify why this regulation only applies to "Mixed-light Cultivation". Perhaps "Cultivation Sites" (defined as a location where Cannabis Cultivation occurs) could be used or added.

3. The Proposed Ordinance requires that lighting be fully shielded, downward-cast, and not spill over to other properties or the night sky.

Comment: Lighting should also address potential impacts to visual and scenic resources and sensitive species and habitat.

4. Proposed Ordinance Section 5.148.160 (Cultivation Requirements) includes requirements for pest prevention, such as submittal of a plan for compliance with the Commercial Cannabis ordinance. The plan, at a minimum, must include descriptions of methods to be used for pest control. This section also has requirements with respect to runoff and storm water and waste water discharge.

Comment: We suggest that the sections for Pest Prevention, Runoff and Storm Water, and Wastewater Discharge should also address potential impacts to biological resources and sensitive species and habitat.

5. Additional Issue - Agricultural Excluded Areas

Comment: Categorical Exclusion Order E-81-1 provides that ag-related development in designated rural areas can be excluded from CDP requirements. Order E-81-1 does not include/isn't applicable to agricultural greenhouses. However, improvements to and expansion of ag-related greenhouses not sited on Prime Agricultural Land are excluded with certain provisions (such as those that don't exceed 36 feet in height or increase ground coverage by more than 255 or 10,000 square-feet, whichever is less). It doesn't appear that the Commercial Cannabis Ordinance will change what is covered by E-81-1. However, we suggest that the County address the proposed ordinance's applicability to Agricultural Exclusion areas. The County should explicitly state that the ordinance regulations also apply to the Agricultural Exclusion areas. Would it be possible for improvements to and expansion of agricultural greenhouses for marijuana cultivation to be excluded from CDP requirements by the County's existing Cat Ex E-81-1?

6. The Proposed Ordinance requires: Licensees to identify adequate water source and monitor usage; domestic sources must be permitted by the County; applicants must submit a plan for compliance with the water usage requirements of the new ordinance.

Comment: There should be sufficient water for this new proposed use as well as existing agricultural use on the property. Additional use of groundwater resources should evaluate potential impacts to surrounding sensitive habitats. How would this new type of agriculture use potentially affect water consumption estimates and water capacity reservations in the LCP?

Renée T. Ananda

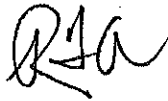
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SAN MATEO COUNTY
PLANNING AND BUILDING
DEPARTMENT

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RECEIVED

Comment Letter C

David Schorr
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Half Moon Bay, CA 94019
650-726-2842

San Mateo County Planning Department
455 County Center, 2nd Floor
Redwood City, CA 94063

Michael Schaller, Senior Planner
650/363-1849

PUBLIC COMMENT RE:

**NOTICE OF INTENT TO ADOPT
NEGATIVE DECLARATION**
Commercial Cannabis Cultivation Ordinance,
FILE NO.: MNA 2017-0002

Delivered by email to Michael Schaller

November 17, 2017

To whom it may concern;

The following is submitted as comments on the above noted Notice of Intent.

This document contains response to specific sections of your report, but as preamble, there are a number large overriding concerns which must be addressed, as they are significant, germane to this topic, and effectively render moot and invalid your intention to adopt a Negative Declaration regarding the proposed ordinance.

1. MINISTERIAL VERSUS DISCRETIONARY PERMITTING OF CANNABIS CULTIVATION OPERATIONS:

Your summary, and Negative Declaration document state:

“Commercial cannabis cultivation operations will be able to occur in existing greenhouses under the proposed ordinance without additional environmental review, but subject to issuance of a ministerial business license.”

I understand that this is the approach County has decided to take, however on discussing this approach with various municipal planning professionals, they used the following words to describe this approach: stunning, problematic, troubling, inappropriate, wrong.

My belief and contention is that this is an inappropriate and impermissible approach to permitting cannabis cultivation operations, inconsistent with SB 94, and must be modified. Logic:

From the both digest and text of SB 94, we have the following passages:

Legislative Counsel's Digest:

The bill, until July 1, 2019, would exempt from the California Environmental Quality Act the adoption of a specified ordinance, rule, or regulation by a local jurisdiction that requires discretionary review and approval of permits, license, or other authorizations to engage in commercial cannabis activity.

From the text of SB 94:

SEC. 41.

Section 26055 of the Business and Professions Code is amended to read:

26055.(h) Without limiting any other statutory exemption or categorical exemption, Division 13 (commencing with Section 21000) of the Public Resources Code does not apply to the adoption of an ordinance, rule, or regulation by a local jurisdiction that requires discretionary review and approval of permits, licenses, or other authorizations to engage in commercial cannabis activity. To qualify for this exemption, the discretionary review in any such law, ordinance, rule, or regulation shall include any applicable environmental review pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code. This subdivision shall become inoperative on July 1, 2019.

The clear intent of the State Legislature was to streamline creation of ordinances which globally govern permitting of cannabis cultivation and other activities – this, given the short timeline that regulatory agencies are working under to bring this to fruition. Exempting only the ordinance creation from CEQA, in the context of the permitting activities (projects) themselves being subject to normal environmental review under CEQA, allows a shortened timeline for drafting legislation, without in any way removing the requirement for environmental review of the individual projects themselves.

There is no mention in SB 94 that I have seen which would allow for ministerial administration of permit applications. The underlying intent of SB 94 is clearly to have individual projects subject to environmental review. The County's approach therefore would seem to be impermissible.

The State Legislature recognizes that cannabis cultivation is not merely substituting one crop for another, as County appears to contend – there are unique needs to growing this plant, more akin to pharmaceutical production than regular agriculture. There are unique needs of filtered air, climate control, high water consumption and high electricity consumption (electricity both for lighting, as well as extensive air handling for filtration and odor control) which must be addressed under regular environmental review processes, for each and every project proposed.

To attempt to allow a Negative Declaration to dismiss all potential environmental concerns, and lower the bar for approval to a simple ministerial permitting process, is to ignore the intent of the State Legislature, and exposes the County to legal liability, and challenge, to say nothing of the potential harm to both of the environment and to the citizens of the County of San Mateo. In addition, this Negative Declaration itself is deficient in many regards, detailed later in these comments.

It must be noted that the City of Half Moon Bay, a municipal jurisdiction with which you are attempting to work cooperatively, to ensure that there are not significant disparities between your regulatory standards and theirs, is taking the approach clearly anticipated by the State Legislature – that of requiring environmental review as part of the permitting process for each individual application. Your proposal to adopt a Negative Declaration, and relegate permitting activity to the ministerial category is at odds with, and out of step with this standard.

2. ACTIVITIES REQUIRING DISCRETIONARY PERMITTING REVIEW, AND COASTAL DEVELOPMENT PERMITS, WHERE APPLICABLE:

Notwithstanding stipulations within the County document regarding compliance with building codes, odor control, light control, etc., for the following reasons it is inappropriate and impermissible to handle cannabis cultivation permit applications on a ministerial basis:

By any reasonable interpretation, the nature and extent of modification to existing greenhouse structures required to allow cannabis cultivation constitutes “development”, and therefore requires discretionary review and permitting, not ministerial.

These significant modifications include, but are not limited to:

- installing additional electrical and lighting to provide the extensive amount of illumination needed to grow cannabis through the vegetative and flowering stages
- installing additional air handling equipment to control influent to the structure – filtering for mold, dust, pollen, etc.
- installing additional air handling equipment to control effluent for odor
- significant modification of the greenhouse structure to allow for the pressure gradients required for control of influent and effluent of air
- installing additional structure to control and limit light emission from the property
- installing security cameras and equipment
- installing security fencing and perimeter monitoring
- modifying access, ingress, and egress both to the structure and the property

These activities, individually, and/or in combination, plainly and clearly fit the definition of “development”, and qualify as development both under County code, as well as for greenhouse properties which are subject to the regulations of the California Coastal Commission, therefore requiring a Coastal Development Permit – which in and of itself requires environmental review. If this is the intent of the draft ordinance from the County, it should be spelled out more explicitly that CDP requirements shall apply.

Additionally, considering the structure modifications, and operational modifications required for commercial cannabis cultivation as compared with conventional greenhouse crops, it is impossible to not see this as an intensification of use, subject to discretionary permitting review, and most certainly subject to review under the California Coastal Act. The Negative Declaration is therefore inadequate in failing to consider the issue of intensification of use.

3. ALLOWING MINISTERIAL PERMITTING OF COMMERCIAL CANNABIS CULTIVATION CREATES A SITUATION OF DE FACTO, AND IMPERMISSIBLE, PIECEMEALING ON THE “PROJECT”:

One of the primary purposes of CEQA is to prevent piecemealing – where the cumulative impacts of disparate portions of a project cause unwanted and harmful environmental impacts. It is only when the totality of the project, and in the context of other concurrent and potential future development activities as well, is considered, that the piecemealing can be identified and quantified, and measures taken to avoid the environmental impacts resulting.

In a novel interpretation and application of environmental review as seen in this Negative Declaration, the draft ordinance itself is deemed to be a “Project”. Problematic to this approach, it is apparent through dozens of examples in the Negative Declaration document that the “project” is not being evaluated in its totality, or even in part – time and time again, the Negative Declaration states that various potential impacts cannot be assessed, because no applications have been received. Of course, no applications have been received because the County is not currently accepting applications. The environmental review process is designed to take into account fact-based analysis of the potential impacts of explicitly described projects, with detailed plans, operating procedures, energy budget projections, etc. None of that is available for the environmental review as applied to the “project” (ordinance) in question here, as the ordinance itself does not determine the number of square feet to be planted, the number of kilowatt hours or BTUs to be expended, the number of gallons of water to be utilized, nor the amount of traffic generated by an unknown number of potential employees. Therefore, it should not be surprising that the environmental review performed, and the Negative Declaration flowing from it, seems questionable, and legally challengeable.

To use a hopefully illustrative analogy, “project” is a noun, it is a thing. However, an ordinance is not a noun, it is, rather, in this context, more of a verb, or an adverb. It is a series of actions, regulations, regulatory limits, etc. which govern how actual projects may proceed. It seems obvious that the State

Legislature was aware of this distinction when they drafted the language cited previously, which clearly has the intent of imposing environmental review on the individual projects (noun) which shall be contemplated and potentially permitted under the ordinance (verb).

The environmental review process is ill suited to assess the potential environmental impact of this regulatory document – that regulatory document is a framework under which actual, real, physical projects occur – the environment review process is most appropriately applied to the actual projects which are to be executed under the auspices of the ordinance.

By attempting to apply environmental review to a “project” whose parameters and design are not yet available or apparent, the review standard is inappropriately applied. By deferring, or in this case, completely eliminating future environmental review, the County is attempting to justify findings of “no impact” and “less than significant impact” in various areas inappropriately, without adequate data to evaluate, and this approach creates a situation of de facto piecemealing, and is impermissible.

This may seem a rather tortured explanation, but it is tortured of necessity because of the novel and potentially problematic application of environmental review to this draft ordinance.

-- Based on the above three points raised, I am unable to see how the County can reasonably contemplate a Negative Declaration, and a ministerial permitting process for commercial cannabis cultivation. I would urge you to revisit this issue, and modify your draft ordinance to conform with the intent of the State Legislature.

REVIEW AND COMMENT OF SPECIFIC SECTIONS OF YOUR NOTICE OF INTENT TO ADOPT NEGATIVE DECLARATION:

The County of San Mateo has, therefore, determined that the environmental impact of the project is insignificant.

Comment: It is inappropriate, and frankly not possible, to subsume any and all potential future permit applications under this blanket statement. This statement is without basis, fact, or underlying logic. The County’s document has not adequately analyzed or contemplated the potential business activities which are foreseeable under this ordinance. This situation is referenced in the above three points in the preamble to these comments.

From the guiding principles of evaluation of environmental impacts in your document:

A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as

general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

As will be detailed below for specific sections, referenced information sources are lacking and inadequate for your “no impact” determinations. Your Negative Declaration in total fails to take into account cumulative as well as project level impacts. In particular, potential cumulative impacts are generally ignored, and inadequately analyzed.

RESPONSIBLE AGENCY CONSULTATION:

None

Comment: In light of the fact that the County has significant amount of lands which are subject to Coastal Act jurisdiction and regulation, and in light of the above noted concerns that commercial cannabis cultivation will involve development as defined by the Coastal Act, consultation with the Coastal Commission must be done, prior to completion of your environmental analysis on this “project” and prior to bringing the draft ordinance forward for evaluation.

COMMENT ON SPECIFIC SECTIONS:

(all prefaced with question “Would the project...”)

3.c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Comment: There is no discussion or determination as to whether or not vapors, particles, gases, etc., which may be emitted by commercial cannabis cultivation operations are or are not ozone precursors. As the precise nature of filtration methodologies is not delineated, this is an open question which must be addressed. A conclusion cannot be reached at this time, based on the language of the ordinance alone.

4.a. Have a significant adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Comment: Given that cannabis is an extremely thirsty crop, as compared with traditional wheat grown greenhouse crops, and will take more water per square foot under cultivation, and areas of the south coast have very recently experienced severe drought, drawdown of water tables, failure of wells, and most significantly in regard to this particular section, human water diversions from stream courses resulting in harm to endangered and listed and threatened species, the finding of no impact here is inappropriate and inaccurate. It can be reasonably anticipated that cannabis cultivation will result in further drawdown of water tables, streams, etc. The Negative Declaration is deficient in not containing any analysis of potential effects on streamflow of commercial cannabis cultivation.

4. b. Have a significant adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Comment: Given that cannabis is an extremely thirsty crop, as compared with traditional wheat grown greenhouse crops, and will take more water per square foot under cultivation, and areas of the south coast have very recently experienced severe drought, drawdown of water tables, failure of wells, and most significantly in regard to this particular section, human water diversions from stream courses resulting in harm to endangered and listed and threatened species, the finding of no impact here is inappropriate and inaccurate. It is reasonably anticipated that cannabis cultivation will result in further drawdown of water tables, streams, etc. The Negative Declaration is deficient in not containing any analysis of potential effects on streamflow and riparian habitat of commercial cannabis cultivation.

4.d. Interfere significantly with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Comment: See comments for the above two sections; in addition for this particular item, should water use draw down streamflow, that could in and of itself impede movement of species as noted in this section 4.d. Negative Declaration is deficient in not containing analysis of this risk, simply stating “no impact”.

7.a. Generate greenhouse gas (GHG) emissions (including methane), either directly or indirectly, that may have a significant impact on the environment?

County finding: No impact: There is no evidence that the introduction of cannabis cultivation to existing greenhouses will significantly alter GHG generation from other agricultural uses.

Comment: County findings here are inadequate, and not substantiated with any data or analysis. In a three-month growing cycle, commercial cannabis requires 18 hours of controlled light during the first four weeks of vegetative stage, and 12 hours per day of controlled light during the next eight weeks of flowering. The Negative Declaration makes no basis or calculations to substantiate finding of no impact. The light cycle required for commercial cannabis cultivation amounts to approximately 56% of the time over a three-month process cycle – this light is not natural daylight, it must be controlled for intensity very carefully, in other words, even if there is some natural light coming in for some period of those hours, electricity will be utilized to even out and supplement natural light. For the County to substantiate its no impact finding, this would need to be compared with the actual, historical lighting and electrical usage in greenhouses which have been identified as potential subjects for permitting. Instead, the Negative Declaration relies on a claim that specific numbers cannot be provided because no projects are currently on the table for evaluation. If that's the case, this again illustrates that this may be an inappropriate application of environmental review, for the ordinance, rather than projects the ordinance will regulate.

In addition, additional electrical load will be required for cannabis operations in the form of additional air handling capabilities which do not exist for conventional greenhouse crops. Influent air is frequently filtered in these operations. County regulation will require air handling and filtering of effluent to control odor. These electrical loads are not quantified in the County report, but quite obviously, will be significant by definition, and a change from current status.

Here on the coast, we stand on the sharp end of the spear of climate change – we quite literally have roads, houses, bridges, and other infrastructure falling into the ocean. It is hypocritical to not be leading the charge towards a more sustainable world – we must be doing everything we can to ensure that we are not worsening climate change.

While the draft ordinance does require using renewable energy through clean power purchasing agreements, that is a very indirect way of mitigating the large amounts of electrical energy which will be used in commercial cannabis cultivation. Many analyses of clean power initiatives have concluded that this is merely shuffling the deck chairs on the Titanic – unless the subject industry is putting up solar panels or wind turbines to directly offset energy use, while clean power purchase agreements are of some value, they are not a panacea. Using “clean power” for these permitted applications means less clean power is available for others, and therefore, additional dirty power is used elsewhere. For all these reasons, the County's analysis and declaration of no impact is therefore incorrect.

Nevertheless, ordinance section 5.148.160. Cultivation Requirements, section (m) requires 100% renewable energy. This section should be further modified to explicitly require 100% renewable energy source with bundled REC's only. In industry discussions of “clean power”, it is clear that some entities try to cut corners, save costs, by dealing in unbundled REC's, which have been analyzed to provide even less environmental benefit.

Referenced in comments to section 10.g., another greenhouse gas emission effect which must be considered under indirect categories is that of labor force increase, with attendant commuting miles driven, and need for housing. The County report is deficient in not considering any of these factors and evaluation of potential impact on greenhouse gas emissions.

Additionally, greenhouses accomplish climate control by heating with natural gas when available, and propane when not available (as is the case for most structures on the San Mateo County coast although it is reported that at least one of the major greenhouses on County land, though immediately adjacent to Half Moon Bay City, chooses to heat with propane instead of (available) natural gas). County document is deficient in not including any analysis of increased use of propane for climate control for cannabis cultivation – burning natural gas or propane clearly contributes directly to greenhouse gas emissions, and is not directly mitigable.

7.b. Conflict with an applicable plan (including a local climate action plan), policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Comment: See discussion on point above. County document does not include any discussion or listing of policies or regulations currently in effect, with which this proposed ordinance and Negative Declaration must be shown to not conflict with. San Mateo County has taken a rather robust stance with regard to climate change/carbon goals, and the environmental review utilized here should compare the potential impacts with the goals of those programs currently in place or contemplated in the near future.

8.c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Comment: “The proposed ordinance does require all commercial cultivation operations to be a minimum of 1,000 feet from all schools.” While my comment here is not objecting to the County’s characterization of risks from hazardous omissions, it must be pointed out that, for multiple sections of the Negative Declaration report, “no impact” assumptions by the County appear to be based on the 1000 foot buffer from schools, day care, parks, and as currently contemplated as of the date of writing of this comment document, a 1000 foot buffer from residential homes. I am also aware that there is discussion among County staff to reduce that 1000 foot buffer, perhaps to as little as 300 feet. Should any modification to that 1000 foot buffer zone be made subsequent to the close of comment for the Negative Declaration document, additional opportunity must be made to reevaluate the entire ordinance, Negative Declaration document, and public comments in light of any change to the buffer zone, as this will impact proximity, security, odor, light, water table, streamflow, and other considerations.

9.b. Significantly deplete groundwater supplies or interfere significantly with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Comment: On this point, the County does not find no impact, but a less significant impact. This is a prime example of the inappropriateness of applying this Negative Declaration to the entire “project” – in other words, all potential future permit applications for commercial cannabis cultivation, for which reliable data does not exist at the point in time of this environmental review. Relying on other pre-existing regulatory mechanisms to control this on a case-by-case basis is a slippery slope, and asking for trouble. Individual permit applications must not be removed from the discretionary permitting process, and must not be allowed to be approved on an ministerial basis. By deferring this issue to future analysis, the County avoids and sidesteps any actual documentation, statistics, or analysis which would support its finding of less than significant impact. This is therefore a prime example of the piecemealing which appears to be inherent in the environmental review process as currently applied. Therefore, on this section 9.b, the County’s analysis of less than significant impact is called into question, and should be sent back for more work.

10.d. Result in the congregating of more than 50 people on a regular basis?

(County)Discussion: *Because neither the State nor the County’s regulations for commercial cultivation have gone into effect, no actual proposals have been submitted at this time. Therefore, it is not known whether a commercial operation will result in the congregating of 50 or more employees on a regular basis. However, performance standards included in the proposed ordinance require any potential growing operation to comply with workplace safety standards, parking requirements, etc.*

Comment: County answer here is again inadequate, and illustrates peril of applying this Negative Declaration to all potential future projects, in the absence of any actual plans or data. Congregation of 50 persons or more on a growing site seems quite likely, given the reported high labor demands of cannabis cultivation. Public statements by Martin Lagod, venture capitalist and potential investor in one or more local projects have stated that another project he is working on contemplates 450 employees in 165,000 ft.² of cannabis cultivation. That is 120 workers per acre. Given that the County is contemplating permits of up to 66,000 ft.² (1.5 acres) per license/premise, that is potentially 180 workers congregating. County document is otherwise lacking in analysis to support its finding of no impact.

10.e. Result in the introduction of activities not currently found within the community?

Comment: County logic used to support a finding of no impact on this point is novel, but not adequate. By simply calling cannabis another agricultural product, this point is dismissed by the County. However, we wouldn’t be having all this discussion if cannabis was the same as brussels sprouts. Or petunias. This is another example of an extremely narrow interpretation in drafting of this document being used to justify a finding of no impact. It is plainly obvious that cannabis cultivation in large greenhouses is an activity not currently found within the community.

10.g. *Create a significant new demand for housing?*

(County) Discussion: *While it is hoped that permitting the commercial cultivation of cannabis will lead to job creation, it is not anticipated that the number of potential jobs created in San Mateo County will result in a significant new demand for housing, above and beyond that demand which already exists.*

Comment: County document is deficient in not providing any analysis for the conclusions made. Saying “we don’t know what might happen” is not adequate basis for a reasoned conclusion. Please see statement referenced above from a cannabis industry expert stating that approximately 120 jobs per acre of cultivated land will be created. It is unclear to this author exactly how many acres or square feet might be converted to cannabis cultivation – There is a document (attached to this report) from the County with an inventory of greenhouse spaces. There is no delineation of how many square feet would or could convert to cannabis. However, if we have only 10 acres converting, 440,000 ft.², that would be need for an additional 1200 workers. With unemployment in San Mateo County at 3.2%, and existing forms already reporting labor shortages, it begs several rather obvious questions – where would these workers come from, what roads would they drive on, and where would they live. The answers to those questions are proper topics of discussion of an adequate environmental review. I would like to reference and attach this discussion to other sections of this Negative Declaration which discuss traffic, housing, as well as greenhouse gas emissions, as both housing and commuting activities additionally contribute to greenhouse gas emissions. People are already being forced from their homes due to rising rental prices. The need to house an additional 1200 workers, or more, or less, will inevitably put additional pressure on the housing market, resulting in additional displacement of existing residents. County discussion and conclusion on this point is inaccurate and inadequate.

13.a. *Induce significant population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Comment: Discussion on 10.g above. The labor-intensive nature of commercial cannabis cultivation, promoted as job creating benefits by proponents of commercialization, de facto leads to significant population growth, especially in the rural portions of San Mateo County, where housing stock is already inadequate, and any perturbation of this market causes additional dislocation, price increase, and disruption. County finding is inaccurate and inadequate, and lacks factual basis.

14. PUBLIC SERVICES. *Would the project result in significant adverse physical impacts associated with the provision of new or physically altered government facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

Comment: I disagree with the County finding here, referencing above sections with significant increase in employment and population base, need for government services would rise proportionally at least. In addition, it is well documented in communities where cannabis cultivation (legal or illegal) has become well rooted (no pun intended), and overburden of homeless persons seeking employment in the cannabis industry reliably develops. With mental health, and substance abuse problems, in addition to all the challenges of homelessness, this overburden significantly increases the need for social services, which is effectively nonexistent at this point in time in rural San Mateo County or Half Moon Bay, even for existing residents.

16.b. *Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways?*

Comment: In the more rural, southern portions of the County, even with significant employment increases resulting from commercial cannabis cultivation operations, I agree, traffic will not be negatively impacted. However, for the areas immediately north and south of the city of Half Moon Bay, Highway 1 and Highway 92 are already significantly impacted by heavy traffic flows, with extremely poor scores on level of service standards. Contemplating 120 new agricultural workers per acre of cultivation of cannabis, it cannot reasonably be stated, as County document attempts to do, that introduction of this novel activity will have “no impact”.

18.d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

(County) Discussion: As discussed previously, the commercial cultivation of cannabis is an agricultural operation. This category of impact is project specific. No permit applications for commercial cultivation have been submitted yet. Section 5.148.160(r) of the proposed Ordinance requires all applicants to identify a water source “adequate to meet all cultivation uses on a sustainable basis”. The proposed water supply must be from a well or other source that has been legally permitted by the County. Implementation of this requirement will reduce potential impacts due to increases in stormwater runoff to a less than significant level.

Comment: County determination of “Less than significant impact” cannot reasonably be made based on County’s own statements here – no permit applications for commercial cultivation have been submitted yet (no permit applications have been submitted because the County is not accepting applications). As noted previously, environmental impacts can only be accurately assessed when we are presented with actual projects to evaluate, their size, their scope, their resource needs, as compared with resource availability. This illustrates again the problems of applying environmental review to the ordinance as opposed to the projects themselves, and de facto exempting the project themselves from the very environmental review which is meant to prevent them from doing environmental damage. The same conclusion applies to any and all sections of the Negative Declaration with County declares that there is no impact simply because no applications had been received yet.

However, on the specific point of sufficiency of water supply, it has been previously noted that cannabis cultivation requires more water than most other crops. For this reason, and because of the uniqueness of individual sites, this is a very concrete example of why discretionary permit review, and appropriate and adequate environmental review, compliant with California code, must be applied to every individual permit application, rather than relegating these important issues to ministerial approval.

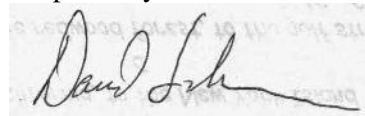
As previously noted, we recently endured a prolonged drought which resulted in mandatory water restrictions from public agencies, insufficiency of water supply in many areas of the rural County, and a crisis to the extent that for the first time in history the State of California began a process to start adjudicating groundwater in heavily impacted basins. In the context of all of this, making a blanket statement that all future potential commercial cannabis cultivation operations would have a less than significant impact is not reasonable, believable, or possible. All of this emphasizes the point that discretionary review of every permit with full environmental review must be done, as was intended by the State Legislature when drafting SB 94.

To wrap up, in addition to consultation with the Coastal Commission, soliciting comments from the City of Half Moon Bay would be not only a matter of professional courtesy, but quite important for this evaluation, as that municipality is the one to be most likely directly impacted by implementation of a commercial cannabis cultivation ordinance throughout the County.

In summary, I believe that the Intent to Adopt Negative Declaration is inadequately researched, and at heart inappropriate for the subject ordinance. The ordinance should go forward in what ever form the Supervisors deem most appropriate, after consideration of all public comment. But the environmental review for the projects which shall or may eventually be authorized under the ordinance must individually be subject to complete and thorough environmental review, not relegated to ministerial approval, without individual environmental review.

The County needs to slow this process down, do more thorough analysis, as well as additional public outreach, and consider all relevant factors, objectively, and fairly.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David Schorr", is written over a faint, light-colored background that looks like a stamp or a piece of paper with some text.

David Schorr
650-726-2842

Comment Letter D



State of California – The Natural Resources Agency
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November 17, 2017

Mr. Michael Schaller
County Planning and Building Department
455 County Center, Second Floor
Redwood City, CA 94063

Governor's Office of Planning & Research

NOV 17 2017

STATE CLEARINGHOUSE

Dear Mr. Schaller:

Subject: Commercial Cannabis Cultivation Ordinance, Negative Declaration,
SCH #2017102056, County of San Mateo

The California Department of Fish and Wildlife (CDFW) has reviewed the Negative Declaration (ND) provided for San Mateo's County's Commercial Cannabis Cultivation Ordinance (Ordinance). The ND was received in our office on October 23, 2017.

CDFW strongly supports efforts to regulate cannabis cultivation and to address the numerous and substantial environmental impacts that may occur from unregulated activities. CDFW believes that greater regulatory oversight and enforcement by local Lead Agencies can help minimize the environmental impacts of cannabis cultivation. CDFW provides the following comments and recommendations on the proposed Ordinance in our role as a California Environmental Quality Act (CEQA) Trustee or likely Responsible Agency.

CDFW expends considerable staff time and resources documenting, assessing, permitting, and addressing the environmental impacts and watershed restoration needs resulting from cannabis cultivation (see Bauer et al. 2015). CDFW was one of the first agencies in the State to draw attention to the near exponential growth and substantial adverse impacts of cannabis cultivation on forestlands, including impacts from water diversions and stream dewatering, forest clearing and conversion, pollution, and sediment discharges. CDFW staff have conducted inspections on cannabis cultivation sites throughout northern California, and have published peer-reviewed research on this topic. Therefore, CDFW has considerable experience in assessing the environmental impacts of cannabis cultivation.

CDFW ROLE

Under CEQA, CDFW is California's Trustee Agency for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State [Fish & Game Code, §§ 711.7, subd. (a) and 1802; Pub. Resources Code, § 21070; Guidelines for the Implementation of the California Environmental Quality Act (Cal. Code Regs., tit. 14, § 15000 et seq.; hereafter CEQA Guidelines) § 15386, subd. (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public

agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, commercial cannabis cultivation may be subject to CDFW's Lake and Streambed Alteration (LSA) regulatory authority (Fish & Game Code, § 1600 et seq.). Likewise, to the extent implementation of the Ordinance as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required. The County of San Mateo should advise permit applicants that even if the County process for permitting cannabis cultivation is ministerial, CEQA compliance may be necessary for CDFW and other regulatory agencies with permitting authority.

CDFW provides the following comments and recommendations on the proposed Ordinance and Zoning Regulation in our role as a Trustee and Responsible Agency pursuant to CEQA. CDFW appreciates the County has proposed to only allow mixed-light cannabis cultivation and greenhouse nursery cultivation operations on lands designated as "Agriculture", and on lands designated as "Open Space-Rural" and "Timber Production-Rural" only if said lands have documented commercial agriculture operations for the previous three consecutive years prior to the adoption of the proposed Ordinance.

The proposed Ordinance and CEQA document should acknowledge and disclose the State permitting requirements for commercial cannabis operations. A license from the California Department of Food and Agriculture would be required. That permitting process requires coordination and possible permitting from CDFW and the State Water Resources Control Board (SWRCB). The County of San Mateo falls within the SWRCB's South Central Coast Cannabis Cultivation Policy region.

AGRICULTURAL AND FOREST RESOURCES

The Agricultural and Forest Resources Impact analysis section of the ND states that "[t]here is the potential that a future operation could propose to convert existing forestland to commercial cultivation operation by proposing the development of new greenhouses. However, no such proposal is before the County at this time. If such an application for development of a new greenhouse structure were submitted, then the ramifications of such conversion would be considered at that time." CDFW is opposed to new commercial cultivation of cannabis on forested parcels, including lands designated as "Timber Production-Rural". The deleterious effects of habitat conversion, fragmentation, and parcelization of forestlands on wildlife and fisheries are well documented in the scientific literature. Therefore, CDFW supports Section 5.148.050 (a) that Mixed-Light and greenhouse Nursery Cultivation of Cannabis shall only occur on lands designated as "Agriculture" by the County General Plan Land Use Map, and other lands where commercial agricultural use has been conducted for the three years preceding the effective date of the Ordinance, as verified by the Agriculture Commissioner. However, the ND implies that existing forestlands could be converted in the future and the ramifications would be considered at that time. CDFW recommends that the ND and proposed Ordinance clearly state that existing forestlands shall not be converted for cannabis cultivation purposes.

BIOLOGICAL RESOURCES

Land Disturbance Impacts:

The Biological Resources impact analysis section of the ND states the adoption of the proposed Ordinance would not authorize any land disturbance that could result in any adverse impacts to sensitive habitats or species. Although cannabis cultivation would be limited to existing greenhouse structures, these structures may require improvements, maintenance activities, and would have to comply with fire code requirements that require emergency vehicle access and turn-around, vegetation management, and fire breaks around all structures. These activities could adversely impact nearby sensitive habitats and species. The ND should evaluate the potential adverse effects these activities (e.g., improvements, maintenance, vegetation management, and fire breaks) could have on sensitive habitats or species.

Additionally, some greenhouse may be located in remote areas that require road upgrades and maintenance. CDFW staff have documented numerous instances of the impacts of poor road construction associated with cannabis cultivation on waterways, habitat and neighboring parcels' infrastructure. Even well maintained roads can significantly impact habitat for sensitive aquatic species. Greenhouse site access may require construction and maintenance of roads, landings, stream crossings and other earthwork, which could cause significant effects on the movement of fish and wildlife and cause sediment pollution to aquatic habitat. The ND should include an evaluation of potential significant adverse effects to fish passage and aquatic habitat from physical placement of infrastructure (e.g., stream crossings, roads and landings near streams, etc.) and the effects to aquatic habitat from erosion and sedimentation. In order to minimize potentially significant effects, the ND should adopt set back distances from streams that are adequately protective of natural stream processes in order to reduce impacts to less-than-significant.

CDFW recommends a qualified biologist identify suitable habitat for special-status wildlife species well in advance of outdoor construction activities and these areas be avoided during project design and construction. Pre-construction surveys should also be required. If habitat is deemed to be present, protocol level surveys for special-status wildlife should be required and appropriate avoidance/minimization or mitigation plans developed. Depending on the species potentially impacted, consultation with CDFW or other avoidance measures (such as installation of exclusionary fencing during construction) may be appropriate.

Night Lighting Impacts:

The potential impacts of light on wildlife was not analyzed in the ND. Cannabis cultivation increasingly uses artificial lighting in greenhouses and so-called "mixed-light" techniques to increase yields. The adverse ecological effects of artificial night lighting on terrestrial, aquatic, and marine resources such as fish, birds, mammals, and plants are well documented (Johnson and Klemens 2005, Longcore and Rich 2016, Rich and Longcore 2006). Some of these effects include altered migration patterns and reproductive and development rates, changes in singing behavior in bird species (Miller 2006), changes in foraging behavior and predator-prey interactions, altered natural community assemblages, and phototaxis (attraction and movement towards light), disorientation, entrapment, and temporary blindness (Longcore and Rich 2004, Longcore and Rich 2016).

CDFW has determined that artificial night lighting can significantly affect marine and near-shore wildlife (CDFG 2007). Light pollution disrupts the abilities of night-foraging birds (CDFG 2007). Artificial lighting impacts bat roosts, and Johnston et al. (2004) recommend that artificial lighting be directed away from bat roosts or possibly shaded by trees. Research on the effects of artificial lighting on salmonid populations indicate that increased light intensity appears to slow or stop out-migrating juvenile salmon and affects feeding patterns. Juvenile salmonids in the presence of increased artificial night lighting may be more vulnerable to predation (McDonald 1960, Patten 1971, Ginetz and Larkin 1976, Tabor et al. 2004). Because cannabis cultivation sites could be located in remote forested areas or open areas that would otherwise not be affected by night light pollution, and because these areas contain habitat for many species that are negatively impacted by light pollution, cultivation using artificial light on a landscape scale could have a significant impact on fish and wildlife.

CDFW supports Section 5.148.160 (h), Lighting, in the proposed Ordinance that states “[a]ll operations shall be fully contained so that little to no light escapes.” The Ordinance goes on to state that “[l]ight shall not escape at a level that is visible from neighboring properties or the public right of way between sunset and sunrise.” CDFW is concerned that in rural open and timberlands, the neighboring properties or public right of way might be 0.25 miles away or more and Licensees might be less inclined to prevent light escapement from their nighttime, greenhouse grow operations. CDFW recommends that all greenhouses block light escapement at night such that little to no light shall be visible beyond the cultivation area or from a fixed distance (e.g. 250 feet) in all directions from the structure. Outdoor security lighting could be exempt but would still be subject to the proposed requirement that “[a]ll lighting shall be fully shielded, downward casting, and not spill over onto other structures, other properties, or the night sky.”

Noise Impacts:

The Noise Impact Analysis section of the ND states that “[g]reenhouses typically use fans to pull outside air into the building and circulate it, which does generate noise.... Many wildlife species have better hearing and are more sensitive to noise than humans. The effects of noise pollution on wildlife include disrupting communication between individuals, affecting predator-prey relationships and foraging efficiency, and habitat selection and bird nesting density (Barber et al. 2009; Francis and Barber 2013). Noise pollution can be especially harmful to night-foraging animals such as owls and bats, which hunt for prey primarily through hearing. CDFW supports the proposed Ordinance Section 5.148.160 (m), which prohibits the use of generators except for portable temporary use in emergencies as diesel and gasoline-powered generators tend to produce considerable noise pollution.

Future Impacts:

The Biological Resources impact analysis section of the ND also states that any future impacts to biological resources due to construction of new greenhouses would be subject to future discretionary review, including CEQA review. Rather than deferring the biological impact analysis to the County's future ministerial cannabis permitting process, CDFW recommends the CEQA document include an analysis of potential impacts to special-status species and sensitive habitat types. The analysis should include, but not be limited to, salmonid species, foothill yellow-legged frog (*Rana boylei*), California red-legged frog (*Rana draytonii*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), grasslands, riparian habitats, wetlands, oak

woodlands and vernal pools. Please note that the San Francisco garter snake is a fully protected species (Fish & Game Code § 5050, subd. (b)(2)). A fully protected reptile or amphibian may not be taken or possessed at any time, except as otherwise provided in Fish and Game Code sections 5050, 2081.7, and 2835. Therefore, CDFW recommends all cannabis-related activities avoid take of San Francisco garter snake as well as all other fully protected species in the County.

Once potential impacts to special-status species and sensitive habitats are identified, appropriate foreseeable mitigation measures should be included in the CEQA document. We recommend avoidance as the primary mechanism to prevent temporary and permanent impacts to species and their habitats. If impacts cannot be avoided, appropriate minimization measures should be implemented and compensatory mitigation provided through the acquisition and preservation of habitat that is of equal or greater value. These measures can then be incorporated as enforceable conditions to reduce potential impacts to biological resources to less-than-significant levels.

HYDROLOGY AND WATER QUALITY

In Section 5.148.160 (r), Water Usage, of the proposed Ordinance, CDFW recommends the Ordinance also mention that Licensees must comply with Section 1602 of the Fish and Game Code or receives written verification from CDFW that a LSA Agreement is not required. This is a requirement of every commercial cannabis cultivation license issued by the California Department of Food and Agriculture (Business & Professions Code § 26060.1 (b)(3)) and every microbusiness license issued by the Bureau of Cannabis Control (Id., § 26070, subd. (a)(3)(A)).

The proposed Ordinance [Section 5.148.160 (r)] states, in part, that the Licensees must identify a water supply source adequate to meet all cultivation uses on a sustainable basis. It is unclear in the ND how many Licensees would identify a well or nearby stream as their water source. This is a concern especially on lands identified as "Open Space-Rural" and "Timber Production-Rural" as surface water and groundwater withdrawals could individually and cumulatively adversely affect riparian and instream habitats for native fish and wildlife. The Ordinance, as currently proposed, does not provide protection for instream flows and the fish and wildlife resources that depend upon it. The ND should include an analysis of groundwater/streamflow availability and cumulative impacts to surface and groundwater resources. Permitting of groundwater wells with the potential to impact streamflow should also include avoidance, minimization and mitigation measures to protect state and federally listed species and their habitat.

CDFW recommends that for any cannabis cultivation site where diversion of stream flow (or water sources such as wells that are hydrologically connected to a stream) provides any part of the water supply, diversion should cease during the period from April 1 through October 31, which is consistent with SWRCB's Cannabis Cultivation Policy adopted on October 17, 2017. Adequate water should be retained and stored, after obtaining an appropriate water right with SWRCB, during high-flow periods for use during the dry season. Such surface water diversion would be subject to SWRCB's Surface Water Flow Bypass and Numeric Instream Flow Requirements for the South Central Coast Cannabis Cultivation Policy region, and to all other applicable laws and regulations, including Fish and Game Code. In addition, the County should reserve the right to reduce permitted cultivation area based on water availability, drought, and other environmental conditions.

CUMULATIVE IMPACTS

CDFW is concerned about the cumulative impacts, not only from permitted and unpermitted cannabis cultivation, but also rural residential development and other types of development that have similar impacts. CDFW recommends that the County establish maximum limits of allowable cultivation sites and/or square feet of cannabis canopy as a proportion of a given watershed to minimize cumulative impacts.

The CEQA Guidelines defines cumulative impacts in section 15355 as *"two or more individual effects which, when considered together, are considerable... and may include "the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects."* Discussion of cumulative impacts is required by CEQA Guidelines section 15130, which also includes *"past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency..."* CDFW recommends the ND address probable future greenhouse construction impacts (see previous Biological Resources, Future Impacts comment) or illegal cannabis cultivation sites as an important and existing contribution to cumulative impacts.

The environmental impacts of unpermitted cannabis cultivation can be significant. Cannabis cultivation can lead to road building, grading, pond construction, stream crossing construction, and hydrologic modification including rerouting of streams and interception of groundwater through poorly constructed road systems. The environmental impacts of cannabis cultivation include habitat fragmentation, habitat loss through land clearing and conversion, reduction in instream flow, and delivery of sediment, nutrients, petroleum products, and pesticides to streams (Carah et al. 2015).

Additional environmental impacts documented by CDFW staff include but are not limited to: degraded water quality; degraded riparian and wetland habitat due to development near streams and wetlands; wildlife entanglement and mortality due to on site hazards (e.g. plastic mesh); wildlife entrapment; fish passage barriers due to unpermitted water diversions; altered natural photoperiods from light pollution; noise impacts due to extensive generator use, and introduction of non-native species (e.g., fish, amphibians and plants) resulting in predation of native species and degrading habitat quality.

Cannabis cultivation has contributed to potentially significant cumulative impacts on species listed or candidate under CESA including Coho salmon (*Oncorhynchus kisutch*), and foothill yellow-legged frog, and the federally threatened California red-legged frog, and the habitats they rely on. CDFW considers the cumulative impacts associated with the existing unpermitted cannabis cultivation to be potentially significant and recommends the ND address these impacts.

RESTORATION AND ABANDONMENT OF CANNABIS SITES

The ND and proposed Ordinance do not discuss or provide guidelines for the restoration and abandonment of cannabis sites. Abandoned cannabis cultivation is known to be a significant and ongoing problem, especially on public lands. CDFW recommends the ND include specific provisions and sections that provide funding, regulatory, and enforcement resources that will allow for evaluation, planning, and implementation of adequate restoration on lands that have been adversely affected by previous cannabis cultivation.

Mr. Michael Schaller
November 17, 2017
Page 7 of 9

CDFW appreciates the opportunity to comment on the ND and looks forward to working with the County to effectively regulate commercial and/or medical cannabis cultivation while addressing its documented environmental impacts. If you have questions, please contact Mr. Andy Rockriver, Senior Environmental Scientist (Supervisory), at (707) 944-5570 or andy.rockriver@wildlife.ca.gov.

Sincerely,



Craig J. Weightman
Acting Regional Manager
Bay Delta Region

cc: State Clearinghouse, State.clearinghouse@opr.ca.gov

County of San Mateo

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Mr. Michael Schaller
November 17, 2017
Page 9 of 9

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