



396 HAYES STREET, SAN FRANCISCO, CA 94102
T: (415) 552-7272 F: (415) 552-5816
www.smwlaw.com

JOSEPH D. PETTA
Attorney
Petta@smwlaw.com

May 17, 2021

Via E-Mail Only

Sonoma County Board of Supervisors
575 Administration Drive
Room 100 A
Santa Rosa, CA 95403
E-Mail: bos@sonoma-county.org

Re: Sonoma County Cannabis Land Use Ordinance Update and Draft
Subsequent Mitigated Negative Declaration

Dear Members of the Board of Supervisors:

This firm represents Save Our Sonoma Neighborhoods (“SOSN”) and Neighbors of Liberty Valley, LLC (“NLV”) in connection with the Sonoma County Cannabis Land Use Ordinance Update and General Plan Amendment (“Project”). This firm concurrently represents the Friends of Mark West Watershed (“FMWW”) and will submit separate comments on their behalf. The purpose of this letter is to inform Sonoma County that the Subsequent Mitigated Negative Declaration (“SMND”) for the Project, even with the revisions proposed by the Planning Commission, fails to comply with the requirements of the California Environmental Quality Act (“CEQA”), Public Resources Code § 21000 et seq., and the CEQA Guidelines, California Code of Regulations, title 14, §15000 et seq. (“Guidelines”).

As detailed below, numerous inadequacies and omissions in the SMND render it insufficient as an environmental review document. In addition, while SOSN and NLV support the Planning Commission’s recommendation to *not* amend the General Plan to classify cannabis as agriculture and the ordinance revision prohibiting use of groundwater wells for cannabis production in Groundwater Availability Zones 3 and 4, the proposed changes alone fail to address the legal inadequacy of the SMND and fail to ensure minimizing of identified impacts to less-than-significant levels.

The SMND fundamentally violates CEQA. It presents an unclear description of the project. The SMND fails to fully disclose and analyze the extent and severity of environmental impacts that it identifies as potentially significant. The countless vague, voluntary, arbitrarily changeable, and unenforceable policies and measures cited as mitigation measures in the SMND fail to comply with CEQA, which requires enforceable, concrete commitments to mitigation. As a result, the SMND completely fails to describe measures that could avoid or substantially lessen the Project's numerous significant impacts. The pervasive flaws in the document demand that the SMND be rejected, and a county-wide environmental impact report ("EIR") be prepared and circulated for public review and comment, before proceeding with the Project.

The following comments supplement the comments submitted by SOSN on March 18, 2021 ("SOSN March 18 Comments"), attached as Exhibit A.

I. The Project Description remains unclear.

"An accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity." *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 730 (citation omitted). An inaccurate or incomplete project description renders the analysis of significant environmental impacts inherently unreliable. In the SOSN March 18 Comments, we explained the numerous deficiencies in the SMND's description of the Project.

The SMND does not provide a meaningful description of the "development potential"—*i.e.*, the scope and extent of cannabis cultivation and other commercial cannabis activities—that may be permitted by the proposed updates to the cannabis ordinance ("Ordinance"). Here, the SMND purports to provide an outer limit on possible development, calculated at 65,753 acres. SMND at 16, 19. This calculation purports to reflect a "worst case" assumption that 10% of all Agricultural and Resource zoned parcels would be sited with commercial cannabis operations. However, this estimate omits any analysis of the possible extent of indoor cannabis. The SMND must analyze how much cannabis may be grown in indoor spaces—especially since indoor cultivation can occur on shelved units, potentially *quadrupling* the canopy area possible in an existing structure. *See* SOSN March 18 Comments, Exhibit 2 (Borroughs, Vertical Cultivation [website for retailer of horticultural grow shelves for cannabis operations; "Shelves are engineered for single, double, triple, and even quadruple stacks"]). In addition, indoor cultivation can have as many as five harvests per year. This indoor cultivation loophole could portend significant impacts on the environment that have not been analyzed. Because the Ordinance allows an unknown, but potentially massive, amount of indoor cannabis cultivation, the corresponding impacts (in terms of increased

water usage, energy usage, vehicle miles traveled (“VMT”), greenhouse gas emissions, etc.) are similarly unknown, and potentially vast.

For example, the hydrology analysis concludes that groundwater supply impacts would likely be less than significant because of “the relatively low quantities of water use (from .002 to 1.8 acre-feet per year).”¹ SMND at 69. The SMND then explains that the size limitations—10 percent of a parcel for outdoor grows and no more than one acre of *new* building coverage—would limit water use at individual sites. SMND at 69. Even using this analysis only for outdoor grows with one harvest per year, the maximum water usage calculated is 118,355 acre feet, which is 6.1 times more than used in all of Santa Rosa in 2020. *See* City of Santa Rosa 2020 Urban Water Management Plan.² This analysis, however, does not take into account the fact that indoor cultivation can be multi-tiered or stacked for greater growing area in the same building footprint. Greenhouses and hoop houses can harvest three to five crops per year, a fact the SMND neither mentions nor analyzes. Thus, because of the flawed Project description, the SMND’s analysis could be significantly underestimating the amount of water demand that could be created by the Project, which could impact both hydrological and biological resources.

The SMND also contains an incomplete and inconsistent description of the special events that the County claims may be permitted as part of the Project. For example, the SMND states that the Project would no longer prohibit cannabis-related tours and events, SMND at 5, and that the County “would permit such events in the future on a case-by-case basis, pursuant to Chapter 26, when proposed by applicants. Special events could include cannabis site tours, tastings, and promotional events.” SMND at 80. However, the SMND also states that such events “would be subject to *ministerial permits*”—i.e., pursuant to Chapter 38, as opposed to Chapter 26. SMND at 81. The County must correct this blatant inconsistency in the SMND.

In addition, as described at greater length in Part V, the SMND incorrectly describes a central feature of the Project as the conversion of commercial cannabis permitting in agricultural and resource zones from a discretionary to a ministerial process. SMND at 5, 8. The SMND further asserts that various proposed provisions in Article 12 of Chapter 38 set forth standards that do not require the exercise of discretion.

¹ As explained in the SOSN March 18 Comments and the report by hydrologist Greg Kamman attached thereto, these figures appear to be gross underestimates.

² Available at <https://srcity.org/DocumentCenter/View/32226/2-UWMP---without-Appendices-PDF?bidId=> (last visited May 14, 2021).

SMND at 8-13. For the reasons explained below, this is inaccurate and thus the Project description must be revised to comply with CEQA.

II. The SMND fails to analyze potential significant impacts of cannabis related events, which in any case the General Plan prohibits in agricultural areas.

As explained in the SOSN March 18 Comments, the SMND asserts that the Project would no longer prohibit cannabis-related tours, tastings, and events (SMND at 5, 6, and 13), and that the County would permit such events under either a revised Chapter 26 or conversely, proposed Chapter 38 of the Code. SMND at 80 (stating cannabis events would be subject to discretionary permits); *id.* at 81 (stating cannabis events would be subject to “ministerial” permits).

Regardless of what the Ordinance might purport to allow, the County’s General Plan prohibits *all* special events at cannabis cultivation sites in agricultural areas of the County. Goal AR-6 of the County’s General Plan, Agricultural Element, provides that any new visitor-serving uses in agricultural areas “must be beneficial to the agricultural industry” and “compatible with long term agricultural use of the land.” Objective AR-6.1 provides that “[v]isitor serving uses *shall promote agriculture and enhance marketing of Sonoma County agricultural products.*” Policy AR-6d requires that visitor serving uses in agricultural areas may only be approved if “[t]he use promotes and markets *only agricultural products* grown or processed in the local area.” Cannabis is not included in the definition of agriculture in the current General Plan; furthermore, the Planning Commission and County planning staff have specifically recommended that the Board *not expand* the existing definition to include cannabis, consistent with state law³. The Planning Commission found that cannabis “is not sufficiently similar to other traditional agricultural uses and that the redefinition of agriculture to include cannabis [is] premature.” Staff Report re: proposed Ordinance, May 18, 2021 Board of Supervisors meeting, at 5. Thus, the Project could not allow permitting of cannabis-related events in agricultural areas without violating the County’s General Plan. The Project description must be revised to clarify that cannabis-related events would not be permitted in agricultural areas anywhere in the County.

Even if the General Plan *would* allow cannabis events in agricultural areas, the SMND fails to provide any meaningful analysis of allowing these events in Agricultural and Resource zones. These events may include amplified sound such as would be used

³ California Health and Safety Code 11362.777(a) specifies: “For purposes of this section and Chapter 3.5 (commencing with Section 19300) of Division 8 of the Business and Professions Code, medical cannabis is an agricultural *product*,” as opposed to a crop.

for concerts or other special events. SMND at 15, 78, and 80. Such events are likely to result in increased use of groundwater that would affect groundwater supply and water quality. The events would result in additional traffic on remote rural roadways, which as discussed below, are frequently substandard. Increased traffic in remote areas has also been shown to increase wildfire risk. Exhibit A at 37. Increased events and/or increased traffic related to those events would in turn result in greater noise and safety impacts to surrounding communities.

The County must prepare an EIR to analyze the impacts, including noise impact, from increased truck and vehicle traffic associated with cannabis cultivation and associated special events. The EIR must calculate the number of events that could take place at facilities based on any limits imposed by the relevant Code section, or the General Plan, on such events rather than assuming that such events “would occur infrequently.” SMND at 81. Without such an analysis, the SMND provides no evidence that the amount of noise reduction provided through identified “best management practices” will be sufficient to reduce noise to less-than-significant levels. SMND at 82.

III. The Project would have negative effects on the character of rural communities and their residents’ personal safety.

In addition to the Project’s numerous unanalyzed and unmitigated environmental impacts, SOSN and NLV are also concerned about the irreversible impact of the Project on the character of the County’s rural communities and the physical safety of the people who live there. Sonoma County is widely recognized for its rural character, bucolic countryside vistas, and small-town charm. Ministerial approval of commercial cannabis operations would allow literally indiscriminate approval of industrial-scale, commercial developments in rural residential neighborhoods, permanently altering their character in the name of recreational cannabis use and financial gain.

In 2015, County planning staff acknowledged the need to limit indoor cannabis cultivation “because indoor facilities are more *industrial* in nature...and may not be in keeping visually with the rural character of these lands.” See SOSN March 18 Comments, Exhibit 14 (Discussion Paper at 4). Although the proposed Ordinance would limit overall operations on any given site to 10 percent of the *parcel*, the Ordinance would not limit the overall quantity or concentration of cannabis operations in rural communities. Thus, ministerial permitting would allow the proliferation of industrial-type land uses throughout Sonoma County’s rural neighborhoods, limited only by the availability of land for such use.

The SMND fails to meaningfully analyze the Project's aesthetic, noise, wildfire and other impacts—all of which would have significant repercussions for rural communities. As explained elsewhere in this letter, the changes that the Planning Commission recommended on April 15 do not reduce those impacts to a less than significant level. For instance, these changes do nothing to address the fact that indoor cannabis facilities look much like multi-story warehouses or self-storage units. SOSN March 18 Comments, Exhibit 35 (photos of indoor facilities). Such facilities would appear out of scale with surrounding community features or unsightly if located in rural environments. These facilities would indisputably have significant visual impacts and degrade the existing visual character of rural communities.

In addition, community members in Bennett Valley, Liberty Valley, and other areas of the county, are concerned about expanded cannabis cultivation activities attracting criminal activities to rural residential areas. For example, in the Liberty Valley community, there are multiple documented incidents of criminal activity that terrorized neighborhoods. These incidents included gunfire with stray bullets entering people's homes and guard dogs that chased neighbors and attacked livestock. The community was subjected to such events for two years before operations at the cannabis site closed down. Even if previously illegal operations are brought into compliance with the County Code, the widespread cultivation of a valuable cash crop that remains illegal under federal and other state laws would continue to attract those who seek to gain from the County's abundance of cannabis grows—a fact the Ordinance itself acknowledges. *See* proposed Ordinance, § 38.12.010(C) (imposing "Security requirements" including "motion-sensor security cameras," "surveillance video to support criminal investigations," "alarms for safety of persons," and a confidential "site security plan" immune from public disclosure). Notably, while the "security" provisions in the proposed Ordinance appear to be intended to increase security *on* cultivation sites, they would do nothing to protect the safety of the surrounding community. The negative externalities of this "attractive nuisance" will therefore be felt most acutely by the small, rural communities where the Ordinance would allow these uses to occur.

IV. The Ordinance would have significant adverse impacts and the changes recommended by the Planning Commission do not decrease the impacts.

As explained in our prior comments to the Planning Commission, the SMND fails to disclose, analyze, and propose adequate mitigation for significant environmental impacts related to the Project's numerous environmental impacts, including those affecting land use, groundwater quantity and water quality, aesthetics, transportation and circulation, energy use, air quality, odor, biological resources, climate change, public health and safety, and noise. SOSN March 18 Comments, attached as Exhibit A. In

addition, as discussed further below, the SMND never considers the full impacts of the Project—the foreseeable impacts of facilitating ministerial approval of cannabis cultivation and production and of events that the proposed Project would allow. In this way, the SMND fails to disclose the extent and severity of the Project’s broad-ranging impacts. This approach violates CEQA’s requirement that environmental review encompass all of the activity allowed by the proposed Project. The County must analyze all of the aggregated impacts of all of the foreseeable development and activities. Without this analysis, the environmental review will remain incomplete and the Project cannot lawfully be approved. CEQA requires the preparation of an EIR to thoroughly investigate these and myriad other impacts *before* the County may approve the Project.

We will not repeat the comments submitted to the Planning Commission (attached as Exhibit A); instead, we summarize some the key concerns below.

A. The SMND fails to adequately analyze and mitigate the Project’s odor and air quality emissions.

1. The SMND fails to adequately analyze and mitigate the Project’s potential to create objectionable odors.

New and expanded cannabis cultivation and production sites facilitated by the proposed Project will generate significant odors impacting nearby residents and other sensitive receptors. As acknowledged in the SMND, unlike other types of agriculture, cannabis cultivation and processing operations “generate distinctive odors that adversely affect people” that can be “reminiscent of skunks, rotting lemons, and sulfur.” SMND at 33; *see also* SMND at 34 (acknowledging that cannabis cultivation “can generate particularly strong odors” compared to other agricultural land uses). Despite these disclosures, the SMND provides only a cursory analysis of the Project’s odor impacts on residents and other sensitive receptors.

The SMND ignores the County’s historical record of odor complaints, which plainly illustrates that the proposed setbacks are completely ineffective. Specifically, while the SMND claims that odors are worst during the two months of harvesting, residents living near existing cannabis cultivation sites report experiencing pungent odors five to six months if there is a single harvest, and year-round if multiple harvests. In several cases of existing cannabis cultivation sites, residents located as far as 2,000 feet from the site are significantly impacted by odors for much of the year. Exhibit A at 28. Aside from misrepresenting the extent and duration of odor impacts on nearby sensitive receptors, the SMND fails to follow applicable guidance by the Bay Area Air Quality and

Management District (“BAAQMD”) and presents an incomplete and inaccurate analysis of odor-related impacts. Exhibit A at 22-24.

Having failed to properly analyze the Project’s odor impacts, the SMND relies on inadequate measures to mitigate them. The SMND relies on its erroneous assumptions about the extent and duration of odors and ignores impacts in areas with smaller non-conforming parcels, claiming that impacts would be limited due to large parcel sizes in areas zoned DA, RR, AR, and RRD. In addition, the SMD relies on vegetative screening to buffer sensitive receptors from cannabis odors and on vapor-phase (fog) systems should vegetative buffers fail. As explained at length in our prior comments, vegetative buffers do not disperse cannabis terpene odors and prevent them from adversely affecting nearby parcels. The SMND fails to explain that vapor-phase systems are used exclusively for indoor grows due to potential health effects of inhaling the chemicals in the fog mist as well as ineffectiveness on the dissipated areas of outdoor grow sites and are therefore unlikely to be allowed by federal and state health authorities. Exhibit A at 26-28. Thus, the SMND’s analysis does not meet established legal standards under CEQA.

Neither does the Planning Commission’s proposed increase of setbacks to a minimum 400 feet from outdoor/hoop house cultivation to the property line adjacent to residential properties provide a remedy. The Planning Commission’s recommended change is arbitrary and not based on any evidence. The recommended 400-foot setback remains insufficient to reduce odor impacts to less than significant levels. Furthermore, the SMND is inconsistent in that, it first states that children are sensitive populations and sensitive receptors include residences and schools (SMND at 32), but it then recommends 1000-foot setbacks from schools, and only 100-foot setbacks from residential property lines. Given the fact that children spend a larger percentage of their time at home than they do at school, this approach is irrational. Based on research presented in our comments to the Planning Commission, the only effective mitigation for odor from outdoor grows is increased distance. At a minimum, 1,000-foot setbacks from one-acre cultivation sites to residential property lines should be implemented. Depending upon the size of grow site and other conditions, setbacks should be further increased to protect rural residents from potential health effects and adverse quality of life impacts.

In summary, a revised environmental analysis in the form of an EIR must assume that the County will have cannabis applications to the greatest degree allowable; that is that all (or at least most) of existing and eligible cannabis cultivation sites will apply for permits. The document must then be revised to include a comprehensive assessment compliant with BAAQMD guidance of odors caused by the proposed Project. Should the analysis determine that the Project’s odor impacts are significant, the EIR must identify

feasible mitigation measures to effectively avoid and minimize impacts on sensitive receptors. These measures should include overall limits on permit approvals, limits on concentration of permits and approved acreage, exclusion zones in the County's sensitive resource areas, and robust setbacks as the primary mitigation to avoid significant odor as well as other impacts. In addition, the EIR should identify additional measures, such as testing with appropriate equipment (*e.g.*, use of field olfactometers). The most effective mitigation for odor from outdoor grows is distance.

2. The SMND fails to adequately analyze and mitigate the Project's air quality impacts.

The SMND's analysis of the Project's air quality-related impacts is similarly deficient. The SMND acknowledges that emissions from cannabis cultivation and production operations will contribute to worsening the county's air pollution, which already violates state and federal standards for ozone and fine particulate matter and state standards for particulate matter (PM₁₀). SMND at 29. Nonetheless, the SMND's discussion of the Project's potential to emit criteria pollutants, such as NO_x, is cursory and lacks evidentiary support.

While the SMND acknowledges that the Project would generate emissions of particulates and ozone precursors (*i.e.*, NO_x and VOC), it concludes that the proposed Project would not result in significant Project and cumulative air quality impacts. SMD at 29 and 30. However, the document reaches this conclusion without completing the analysis of the Project's air quality impacts. The SMND fails to calculate NO_x emissions and dismisses this potential impact without analysis of any sort. Furthermore, the conclusion that impacts would be less than significant is in contradiction to other statements in the document that conclude such exceedance of significance thresholds is possible. SMND at 29 and at Section IV. Summary of Environmental Issues at 15 respectively; staff report to the Planning Commission meeting on March 18, 2021[“...it is possible that cannabis operations would generate NO_x emissions *exceeding the BAAQMD's significance threshold of an average of 52 pounds per day during construction or operation, contributing to regional ozone pollution.*” Emphasis added.] Having failed to properly analyze the Project's air quality impacts, the SMND also fails to mitigate the Project's NO_x and VOC emissions. Exhibit A at 31.

The SMND also fails to adequately analyze the air quality and health and safety impacts associated with significant odor impacts and with the increased fire risk caused by the Project. These impacts must be evaluated in an EIR that considers the full impacts of allowing ministerial permits for cannabis grows county-wide. The EIR must then identify feasible mitigation and alternatives to minimize those impacts.

B. The SMND fails to adequately analyze and mitigate the Project's visual impacts.

As described in the SOSN March 18, 2021 Comments, the Project would vastly increase the number and scale of commercial cannabis operations in the County. The SMND acknowledges that “[c]annabis structures have potential to be visible from scenic corridors and could contrast with the general form, scale, and bulk of other structures or vegetation in rural areas. Greenhouses and hoop houses, especially, can have highly visible light-reflective materials.” SMND at 19. Yet, the SMND fails to adequately analyze or mitigate the Project’s significant visual impacts. The SMND includes no simulations of views from public viewpoints (such as trails and roadways) of existing and eligible cannabis cultivation sites that may apply for a cannabis cultivation permit. Instead, the SMND simply *assumes* that setbacks and screening alone will be adequate to reduce impacts. A field of 12-foot-high hoop houses cannot be screened.

Furthermore, the SMND contains no evidence that the proposed mitigation measure for aesthetic impacts will be effective. The lack of *any* actual analysis in the SMND of the Project’s visual impacts is particularly egregious because here, the Project would allow by-right permitting of cannabis operations, without the case-by-case review of environmental impacts that would occur before issuance of a use permit. While the Ordinance purports to ensure that outdoor canopies are not visible from public rights of way, it would merely require that visibility of outdoor, mixed light and indoor cultivation sites be “minimized” from roadways, schools, Class 1 Bikeways, public parks, and daycares. § 38.12.010(D)(2). There is no analysis of the *extent* to which impacts on scenic vistas and public views must be “minimized” in order to conclude that these impacts would be less than significant. Presuming that impacts would be reduced to less-than-significance without any actual analysis or evidence violates CEQA. Similarly, although the Planning Commission recommends prohibiting hoop houses in the scenic corridor setback (proposed Ordinance § 38.12.040(A)(5)), and increasing the setback for outdoor and hoop house cultivation to 400 feet from adjacent residential uses (§ 38.12.040(A)(3)), the SMND contains no actual analysis of whether these requirements would result in a less than significant impact to scenic vistas and public views. Furthermore, the SMND does not even mention the visual blight that will be caused when the plastic invariably degrades in sunlight, resulting in torn plastic blown about, and adverse impacts related to increased waste at landfills given that the plastic must be replaced frequently.

The SMND’s discussion of aesthetic impacts also fails to analyze the Project as a whole—i.e., whether the sum of all potential activities that may be allowed by the Ordinance would have a significant impact on aesthetics. Instead, the SMND impliedly

concludes that aesthetic impacts would be less than significant based on *each individual permit* that may be issued under the Ordinance. This type of analysis is impermissible because it does not inform the public or decisionmakers about the effects of the Project as a whole. *Cf. Bozung v. Local Agency Formation Commission* (1975) 13 Cal.3d 263, 283-84 (“[E]nvironmental considerations do not become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences.”).

Rather than proceed with the current, legally inadequate SMND, the County should prohibit all cultivation—not just hoop houses—in the scenic corridor setback. Absent a meaningful evaluation of whether the Project’s visual impacts can be mitigated to less than significance in an EIR, prohibiting cultivation is the only way to ensure impacts to scenic corridor views would be less than significant. Likewise, cultivation should be prohibited in voter-approved “Community Separator” parcels. The General Plan defines Community Separators as “rural open space and agricultural and resource lands that separate cities and other communities, prevent sprawl, protect natural resources, and provide city and community identify by providing *visual relief* from continuous urbanization.” General Plan, Open Space and Resource Conservation Element at p. OS-8. These lands “need to remain open or retain a rural character in order to avoid corridor-style urbanization.” *Id.* To implement this policy, the General Plan requires “[r]etain[ing] a *rural character* and promot[ing] low intensities of development in Community Separators.” Objective OSRC-1.2. Importantly, the General Plan also requires that “new structures within Community Separators . . . use building materials and color schemes that *blend with the natural landscape and vegetation.*” Policy OSRC-1f(5).

As explained in the comments submitted by Greenbelt Alliance on March 16, cannabis should be expressly disallowed in Community Separators. As Greenbelt explains, “community separators are the closest county lands to cities and town and therefore neighborhoods, by design, to protect rural character and hold back sprawl. This elevates the potential negative environmental impacts to people living next to community separators compared to other lands.” *See* comment letter from Greenbelt Alliance to the Sonoma County Planning Commission, dated March 16, 2021, attached as Exhibit B. Despite Community Separators being specifically protected under the General Plan, the SMND does not even mention them. Permitting cannabis grows, including greenhouses, hoop houses and other highly visible structures, would violate the General Plan policies and objectives set forth above, and on this basis cannot be approved. Either Community Separators must be expressly excluded from the proposed Ordinance, or the County must prepare an EIR to analyze and mitigate the impacts to the 53,000 acres of Community

Separator lands. The County should take the same approach as to scenic-protected areas in area plans.

C. The SMND fails to adequately analyze and mitigate the Project's impacts on groundwater supply.

1. The Ordinance would have a significant impact on the County's water resources, and the changes recommended by the Planning Commission do not reduce those impacts to a less than significant level.

As explained in our letter to the Planning Commission, the SMND fails to disclose, analyze, and propose adequate mitigation for significant environmental impacts related to hydrology and water quality, groundwater supply, and related impacts to biological resources. *See*, Exhibit A at section V.B. These impacts are exacerbated by the prolonged drought the State is currently experiencing. *See*, <https://www.pressdemocrat.com/article/news/sonoma-county-supervisors-declare-drought-emergency/> and <https://www.sfgate.com/bayarea/article/2021-04-Drought-map-California-Bay-Area-red-16138839.php> and <https://www.latimes.com/california/story/2021-05-10/drought-emergency-now-extends-to-4-1-california-counties-newsom-says>. What analysis the SMND does present on these topics is fraught with errors. *See*, Exhibit A at 16-20. As a result, the SMND fails to describe measures that could avoid or substantially lessen the Project's numerous significant impacts. CEQA requires the preparation of an EIR to thoroughly investigate these and myriad other impacts *before* the County may approve the Project.

Specifically, the SMND's analysis of the Project's impact on groundwater supply is cursory and incomplete so that the document's conclusions that impacts to groundwater supplies and recharge would be less than significant are unsupported. Exhibit A at 17. Likewise, the SMND fails to adequately analyze the impacts to water supply resulting from all the potential ministerial permits countywide allowed by the Project. First, while the SMND admits that the Ordinance revisions could result in "a maximum of up to 65,753 acres" subject to future cannabis cultivation, (SMND at 16, 19), the SMND's analysis could be significantly underestimating the amount of water demand that could be created by the Project. This is because the SMND fails to take into account the fact that each site can apparently include outdoor cultivation, indoor cultivation in new structures, *and* additional indoor cultivation in existing structures; or that indoor cultivation can be multi-tiered or stacked for greater growing area in the same building footprint. This failure to accurately estimate the Project's full development potential could be

significantly underestimating the amount of water demand that could be created by the Project, which would impact both hydrological and biological resources.

Second, the SMND presents unsubstantiated figures on estimated water use by cannabis cultivation and production facilities. The SMND seems not to have considered the greatly increased water demand by cultivators that harvest multiple crops per year. As explained in detail in our prior comments, the increased demand on the County's already stressed groundwater supplies is a well-documented concern, yet the SMND fails to adequately analyze the impacts of the Project on this limited resource. Exhibit A at 31 and 32.

Similarly, the SMND fails to adequately evaluate the effects of groundwater pumping on creeks, streams, and rivers and sensitive aquatic biological resources, including federally- and state-listed endangered salmon. As we explained in our prior comments, an increase in high-intensity uses, such as those associated with cannabis cultivation, are likely to result in sediment deposits to area creeks and streams and to increase negative impacts on aquatic habitat. Attachment 1 to Exhibit A, Kamman Report at 5 and 6. The California Department of Fish and Wildlife ("CDFW") also stated that groundwater and stream flow from water usage in groundwater zones 1 and 2 can impact stream flow in any of the groundwater zones. *See*, Letter from Gregg Erickson, Regional Manager Bay Delta Region of CDFW to Sonoma County Planning Commission dated March 17, 2021 at pps. 3 and 5.

The Planning Commission's proposed revisions to the ordinance fail to adequately address the aforementioned impacts. The proposed Ordinance amendments would result in allowing cannabis production countywide in much of the undeveloped areas of the County, including sensitive watersheds. Without further environmental review, the County would be making this broad approval with far-reaching effects without having answers to critical questions about the cumulative impacts that would result from implementation of this Project. Moreover, the SMND does not contain any analysis of the Planning Commission's changes or whether they would reduce the significant impacts identified in our previous letters.

2. The Board of Supervisors should make explicit the Planning Commission's recommendation to prohibit ministerial and discretionary approval of groundwater wells for cannabis cultivation in Groundwater Availability Zones 3 and 4.

Based on the staff memo dated April 15, 2021, staff indicates that “[T]he Planning Commission directed staff to remove *any* allowance for use of groundwater wells in Groundwater Availability Zones 3 and 4”, and to remove any allowance for trucked water. Staff Memo at 2; emphasis added. However, as discussed below, the revised ordinance as currently drafted in response to the Planning Commission’s concerns, does not explicitly prohibit ministerial approval of groundwater wells for cannabis cultivation in Zones 3 or 4.

The relevant revised section of the ordinance at section 38.12.140 (A) states:

“The onsite water supply shall be considered adequate with documentation of any one (1) or more of the following sources:

-
-
-
- 4. Groundwater well.
 - a. Groundwater Availability Zones 1 and 2. Documentation that the well serving the cannabis cultivation site is located in Groundwater Availability Zone 1 or 2, and not within a Priority Groundwater Basin.
 - b. Priority Groundwater Basin. If the groundwater well is within a Priority Groundwater Basin, then provide one of the following:
 - 1) Documentation of a net zero water plan...concluding that the proposed use would not result in a net increase in onsite groundwater use; or
 - 2) A hydrogeologic report...demonstrating and concluding that the commercial cannabis use will not result in or exacerbate any of the following conditions of a basin or aquifer, consistent with the California Sustainable Groundwater Management Act (SGMA):
 - i. Chronic lowering of groundwater levels;
 - ii. Reduction of groundwater levels;
 - iii. Seawater intrusion;
 - iv. Degraded water quality;
 - v. Land subsidence;
 - vi. Depletions of interconnected surface water.

Draft Chapter 38 Sonoma County Commercial Cannabis Cultivation section 38.12.140(A) as revised per the Planning Commission, April 15, 2021. It is important to note that the term “Priority Groundwater Basin” is not synonymous with “Groundwater Availability Zones 3 and 4.” The “Priority Groundwater Basin” designation refers to the State’s designation of basins under the Sustainable Groundwater Management Act where basins with a “critical,” “high,” and “medium” priority, as determined by the State, need to be preparing and submitting Groundwater Sustainability Plans. Groundwater Availability Zones refer to the County’s own designation of water scarce areas. Thus, the revised ordinance does not directly address an applicant’s ability to rely on groundwater with a ministerial permit if their property is within Zones 3 or 4. As written, the ordinance is confusing and raises unanswered questions as to the requirements for groundwater wells in zones 3 and 4.

Moreover, the proposed revisions to Chapter 26 of the Ordinance are in direct conflict with the Planning Commission’s direction. Here, rather than remove any allowance for use of groundwater wells in Groundwater Availability Zones 3 and 4, not only does the ordinance allow use of groundwater wells in these zones, but it allows more expanded use than was allowed previously. Specifically, the revised ordinance in Chapter 26 allows discretionary cannabis on up to 10 percent of a parcel and removes the current 1-acre limit on outdoor cultivation. For large parcels, this means that cultivators seeking discretionary permits may seek larger cultivation areas than they previously would have been allowed. It stands to reason that, if groundwater wells in Groundwater Availability Zones 3 and 4 are too environmentally damaging for ministerial permitting, they are also too environmentally damaging for discretionary permitting, especially given the proposed expanded use for such facilities.

Allowing approvals of groundwater wells for cannabis cultivation in Groundwater Availability Zones 3 and 4 would result in significant environmental impacts. *See*, Exhibit A at 16-19. In our view, the Planning Commission intended to prohibit groundwater wells for cannabis cultivation in Zones 3 and 4 because those clearly would result in significant impacts. The Planning Commission clearly intended to enact that prohibition (see Planning Commission staff memo dated April 15, 2021 at 2) and the ordinance language should be revised to clarify the ordinance and to enact that prohibition effectively.

D. The SMND fails to analyze all potential direct and indirect impacts, including wildfire safety and emergency access/evacuation.

Perhaps of greatest concern, the Project provides incentives for cannabis growers to expand operations into remote areas of the County located in highly fire prone areas, all without discretionary review. As the climate changes and fire risk grows, Californians and Sonoma County residents and their neighbors are rightfully concerned about the risk of wildfire. With the state still recovering from the disastrous fires of 2020, and with another summer of drought, heat, and potential wildfire risk forecast for 2021, decisionmakers must consider the role that increased development plays in the proliferation of wildfires, especially when that development encroaches into heavily forested areas with steep hills. CEQA requires environmental documents to analyze the risk of wildfire and the contribution of new projects to the risk of wildfire.

The SMND fails to adequately evaluate the increased risk of wildfires, and barriers to emergency response and evacuation once a fire starts. Instead, it relies on an outdated baseline of conditions (2016) to evaluate the impacts of the Project. For wildfire risk and other impact areas, this outdated baseline is insufficient. As noted in our previous comments, since 2017, approximately 25 percent of county land has experienced fire. Exhibit A at 11. In addition, the mountainous, highly combustible areas in eastern Sonoma County have a Fire Hazard Severity Zone (FHSZ) ranking of “very high” and “high” according to California Department of Forestry and Fire Protection (CAL FIRE 2020) maps, and therefore are the most susceptible to wildland fires. An EIR for the Project must use a baseline reflecting existing conditions.

The SMND fails at every juncture to provide the legally required analysis of the Project’s direct, indirect, and cumulative impacts of a disastrous wildfire. First, the SMND ignores how changes to the climate will impact wildfires in the future. Exhibit A at 35 and 36. The SMND then provides a legally inadequate analysis of the direct, indirect, and cumulative wildfire hazard impacts associated with easing permit requirements for allowing cannabis cultivation and production in rural undeveloped areas. Exhibit A at 35-42. For instance, the SMND fails to evaluate the potential for the Project to expose people or structures to a significant risk of loss, injury or death involving wildland fires. This is a potentially significant impact inasmuch as the proposed Project would result in more intensive use of rural lands in remote, wildland areas. Studies illustrate the heightened safety risks from development and intensification of land use in areas where fire is a natural part of the ecology and flammable vegetation exists. The California Office of the Attorney General has noted that locating development in wildfire risk areas “will itself increase the risk of fire” and increase the risk of exposing existing residents to an increased risk of fire, citing a plethora of reports.

Exhibit A at 37. The SMND (at 88) estimates that large greenhouse operations may have 100-200 employees commuting daily per operation. Thus, multiple operations would add hundreds or thousands of employees, and many more daily vehicle trips than the SMND discloses. People are the major cause of wildfires, and the SMND fails to analyze this added fire risk.

In addition, unlike the existing ordinance, the Project would allow the use of volatile compounds ethanol and high-pressure CO₂ extraction and distillation, and allow this industrial process in all three agricultural zones and RRD. The existing ordinance bans use of volatile solvents and restricts this industrial process to industrial zones. *See* Exhibit A at 37. Allowing these chemicals and processes onsite constitutes a serious fire risk that the fire prevention plan (SMND at 85) does not address or mitigate. Other elements of the Project will also increase fire risk and the inevitable resulting fires including, but not limited to infrastructure, such as roads, power lines, and gas lines and sparks or ignitions from vehicles.

The SMND admits the updated Ordinance could lead to a substantial expansion of cannabis cultivation and associated structures on parcels within very high fire severity zones. SMND at 99 and 100. The SMND even admits that “future cannabis cultivation facilitated by the updated Ordinance would have potentially significant wildfire impacts.... Cannabis cultivation operations in high fire risk areas would increase the exposure of new structures and occupants to risk of loss or damage from wildfire.” SMND at 100. However, the SMND foregoes meaningful analysis of potential impacts to public safety and property loss during a wildfire event and fails to disclose the extent and severity of the impacts.

Most egregiously, the SMND summarily concludes that the Project would result in less-than-significant impacts associated with emergency response routes or response times without providing support for its conclusion. Instead, it defers analysis and mitigation of this important issue. The SMND exacerbates the failure to identify and analyze the Project’s significant impacts by relying on token mitigation measures that do little to reduce the Project’s admittedly significant fire hazard impacts, especially in RRD-zoned parcels. SMND at 67. Given that many of the potential sites that could be used for cannabis cultivation are located on substandard, narrow, dead-end, rural roads and that County staff has documented the inadequacy of rural roads in RRD zoned areas, the omitted analysis is inexcusable. Exhibit A at 40-42. Nor does the EIR consider in any meaningful way post-fire condition hazards associated with unstable slopes, such as landslides, erosion, and gullying. Post-fire debris flows are particularly hazardous because they can occur with little warning, damage objects in their paths, strip vegetation,

block drainage ways, damage structures, and endanger human life. *Id.* An EIR must include these analyses.

In summary, an EIR for the Project must include an analysis of potential cannabis facilities locating in remote areas with limited access, or locating in close proximity to rural residential development, and how potential fire in different scenarios might spread under different weather, fuel, wind and ignition point scenarios. In addition, the EIR must evaluate impacts associated with emergency response and evacuation and it must analyze post-fire hazards that can cause property damage, block evacuation routes, and endanger human life. Finally, the EIR is obliged to identify feasible alternatives and mitigation measures to avoid and minimize significant impacts.

V. The permit approval process contemplated by the Ordinance requires the exercise of discretion by County officials and would, if adopted, represent an abuse of ministerial permitting processes.

The SMND incorrectly describes a central feature of the Project as the conversion of commercial cannabis permitting in agricultural and resource zones from a discretionary to a ministerial process. SMND at 5, 8. The SMND further asserts that various proposed provisions in Article 12 of Chapter 38 set forth standards that do not require the exercise of discretion. SMND at 8-13. As FMWW explained in their previous comments on the proposed Ordinance, this is wrong.

As Commissioner Carr pointed out at the April 15, 2021 hearing, under the proposed Ordinance, the Agriculture Commissioner *must* use his judgment to decide whether to issue permits, and will thus be subject to CEQA. The Ordinance in many instances requires plans or surveys by qualified professionals to assess impacts, but does not provide standards governing *how* these surveys/plans will be evaluated or deemed sufficient. “A project is discretionary when an agency is required to exercise judgment or deliberation in deciding whether to approve an activity. It is distinguished from a ministerial project, for which the agency merely determines whether applicable statutes, ordinances, regulations, or other fixed standards have been satisfied.” *Protecting Our Water & Env’t Res. v. County. of Stanislaus* (2020) 10 Cal.5th 479, 489 (“*POWER*”). Thus, this is different from the situation in *Sierra Club v. County of Sonoma* (2017) 11 Cal.App.5th 11, where the court held that the permit in question did not involve the Commissioner’s judgment, even though the County’s ordinance might allow for discretion in other instances. Therefore, *POWER*, and not *Sierra Club*, applies here.

Changes to the ordinance made by the Planning Commission do not make the proposed permitting regime ministerial. Applicants still must submit assessments

“demonstrating” certain findings to the Commissioner’s satisfaction. For instance, each permit application must include a wastewater management plan that, among other things, “demonstrates” to the Commissioner’s satisfaction that the project would have adequate capacity to handle domestic wastewater discharge from employees. Proposed § 38.12.130(A)(5). Each application must also include a storm water management plan and an erosion and sediment control plan that “ensure,” again to the Commissioner’s satisfaction, that runoff containing sediment or other waste or byproducts does not drain to the storm drain system, waterways or adjacent lands. Proposed § 38.12.130(B). Obviously, whether an applicant’s plans sufficiently “demonstrate” the necessary wastewater capacity, or “ensure” that runoff would not drain to waterways, would require the Commissioner’s individual judgment. Proposed sections 38.12.130(A)(5) and 38.12.130(B) would apply to *all* applications regardless of size or proposed location. Other provisions that require the exercise of discretion to approve or deny a permit include, but are not limited to, proposed sections 38.12.050(B) (historic resource survey), 38.12.050(C) (cultural resource survey), 38.12.130 (wastewater management plan), and 38.12.140 (documentation of water supply), and 38.12.110 (demonstration that no odor is detectable offsite from a permanent structure).

CEQA, and not the personal judgment of County staff, governs the discretionary review of projects, including mitigation of impacts. Here, however, the Commissioner and/or staff would have the authority to deny a proposed project which in their judgment would not avoid certain environmental impacts. *Id.* at 23 (if agency can deny, or modify, project proposal in ways that would mitigate environmental problems that CEQA compliance might conceivably have identified, then the process is discretionary). Thus, the proposed Ordinance contemplates a discretionary, and not ministerial, approval process.

VI. The County may not approve the Project without preparing an environmental impact report under CEQA.

A. Substantial evidence supports a fair argument that the Project will have significant adverse impacts.

CEQA is designed to ensure that “the long-term protection of the environment shall be the guiding criterion in public decisions.” *Friends of College of San Mateo Gardens v. San Mateo County Community College District* (2017) 11 Cal.App.5th 596, 604 [hereinafter “*San Mateo Gardens II*”] (quoting *No Oil, Inc. v. Los Angeles* (1974) 13 Cal.3d 68, 74). Thus, the statute requires an agency evaluating a project to develop an EIR whenever “substantial evidence supports a fair argument that a proposed project ‘may have a significant effect on the environment.’” *Committee for Re-Evaluation of T-*

Line Loop v. San Francisco Municipal Transportation Agency (2016) 6 Cal.App.5th 1237, 1245-46 (quoting *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1123). The fair argument standard establishes a “low threshold” for requiring a lead agency to prepare an EIR. *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928. Courts “owe no deference to the lead agency’s determination,” and judicial review must show “*a preference for resolving doubts in favor of environmental review.*” *Id.* (italics in original).

Ample evidence supports a fair argument that the Project may result in significant environmental impacts that were not studied in the 2016 Negative Declaration.⁴ These impacts would include, but not be limited to: odor and air quality (SOSN March 18, 2021 Comments, Part V.A); groundwater supply, (*id.*, Part V.B); aesthetics (*id.*, Part V.C); wildfire, emergency response, and evacuation (*id.*, Part V.D); traffic and vehicle miles traffic (*id.*, Part V.E); greenhouse gasses (*id.*, Part V.F); energy and utilities (*id.*, Part V.G); noise (*id.*, Part V.H); loss of farmland (*id.*, Part V.I); and impacts to land use plans (*id.*, Part V.J), among others. Because the Project has the potential to result in significant impacts, the County is required to prepare an EIR before it may approve the Project.

B. The County is improperly conducting review of its cannabis program in piecemeal fashion and must develop an EIR to study the program as a whole.

As described in the staff report for consideration of the proposed Ordinance at the Planning Commission’s March 18, 2021 meeting, the County has been developing its current cannabis regulatory regime since at least 2016. The proposed Ordinance is the latest step in the development of this overall program, but it is not the last. At the April 15, 2021 Planning Commission meeting, the Commission recommended that the Board of Supervisors “immediately direct staff to investigate a *more comprehensive* update of commercial cannabis permitting, also including cannabis uses in the *commercial and industrial zoning districts*, as the *next phase* of the County’s Cannabis Program in conjunction with *preparation of an environmental impact report.*”

The County is developing its cannabis regulatory framework backward. In 2016, the County approved the first phase of the cannabis permitting regime under a negative declaration, then made further changes to this framework in 2018 under a categorical

⁴ The relevant analysis under CEQA’s subsequent review provisions concerns the changes since the original Medical Cannabis Land Use Ordinance was adopted in 2016, and not only the changes since the 2018 amendments to allow adult use cannabis. *See* FMWW March 18, 2021 Comments at 3, fn. 1.

exemption. Now, the County is proposing to further modify the cannabis framework—by purporting to make discretionary permitting “ministerial” in Agricultural and Resource Zones—under a subsequent mitigated negative declaration. *Only now* is the County contemplating preparing an EIR to analyze the significant environmental impacts of its “comprehensive” commercial cannabis permitting framework.

The problem with this backward approach is that neither the County nor the public will have the complete picture of this comprehensive framework’s environmental impacts in the context of past, present, and reasonably foreseeable future permitting (including in commercial and industrial zones) until *after* the proposed Ordinance has been approved and new “ministerial” commercial grows are effectively entitled. At that point, if the comprehensive review of the overall program shows that existing regulations would result in significant cumulative impacts, it will be too late to undo these permitted projects. The more prudent approach would be to wait to approve the proposed Ordinance until it can be reviewed as *part* of the recommended “comprehensive” program. The County has not demonstrated a need to rush this Project through now, while at the same time, the Planning Commission is recommending that the County “immediately” undertake a more comprehensive environmental review of its overall commercial cannabis program.

Not only is the County developing its permitting program backward and contrary to commonsense planning principles, but it is also improperly “segmenting” the overall program into multiple, individual approvals. CEQA prohibits “segmentation” of a project—the “chopping up [of] proposed projects into bite-size pieces which, when taken individually, may have no significant adverse effect on the environment.” *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonoma* (2007) 155 Cal.App.4th 1214, 1223-24 (“*Tuolumne*”) (quoting *Plan for Arcadia, Inc. v. City Council of Arcadia* (1974) 42 Cal.App.3d 712, 726); *see also Tuolumne*, 155 Cal.App.4th at 1229 (“when one activity is an integral part of another activity, the combined activities are within the scope of the same CEQA project” and must be analyzed together). CEQA instructs that “[w]here an individual project is a necessary precedent for action on a larger project . . . an EIR must address itself to the scope of the larger project.” Guidelines § 15165.

The proposed Project and associated SMND violate CEQA because they fail to acknowledge that the Project is part of the County’s overall commercial cannabis permitting regime, and therefore fail to disclose the environmental impacts of the “whole of [the] action.” *See* CEQA Guidelines § 15378(a). The Planning Commission’s April 15, 2021 Resolution recommending that the County “immediately” undertake a “more comprehensive” review of the commercial cannabis permitting program clearly illustrates that the proposed Ordinance and the overall program are “part of a single, coordinated

endeavor.” *Assn. for a Cleaner Environment v. Yosemite Community College Dist.* (2004) 116 Cal.App.4th 629, 639.

VII. Conclusion

The proposed ordinance revisions have the potential to result in extensive environmental impacts and adverse impacts on health, safety, and quality of life for rural residents throughout Sonoma County. For this reason, Save Our Sonoma Neighborhoods and Neighbors of Liberty Valley request that the Board deny the Project. If, however, the Board opts to proceed with the Project, the County must prepare a thorough, accurate, and complete EIR that meets all the requirements of CEQA prior to approval. For the reasons presented above, and in SOSN’s March 18, 2021 comments, we have advised our clients that they have strong grounds upon which to have the courts address their concerns if they are not resolved here.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Joseph “Seph” Petta



Carmen J. Borg, AICP,
Urban Planner

Exhibits

- Exhibit A SOSN Comments to the Sonoma County Planning Commission, March 18, 2021.
- Exhibit B Greenbelt Alliance Comments to the Sonoma County Planning Commission, dated March 16, 2021.
- Exhibit C Letter from Gregg Erickson, Regional Manager Bay Delta Region of CDFW to Sonoma County Planning Commission dated March 17, 2021.

cc: Scott Orr, scott.orr@sonoma-county.org
 Jennifer Klein, Jennifer.Klein@sonoma-county.org
 Susan Gorin, Susan.Gorin@sonoma-county.org
 David Rabbitt, David.Rabbitt@sonoma-county.org
 Chris Coursey Chris.Coursey@sonoma-county.org
 James Gore District4@sonoma-county.org
 Lynda Hopkins Lynda.Hopkins@sonoma-county.org
 Andrew Smith, Andrew.smith@sonoma-county.org
 Tennis Wick, Tennis.Wick@sonoma-county.org

1365476.5

EXHIBIT A

SHUTE MIHALY
& WEINBERGER LLP

396 HAYES STREET, SAN FRANCISCO, CA 94102
T: (415) 552-7272 F: (415) 552-5816
www.smwlaw.com

JOSEPH D. PETTA
Attorney
Petta@smwlaw.com

March 18, 2021

Via E-Mail

Sonoma County Planning Commission
c/o McCall Miller, Department Analyst,
Cannabis Program, County
Administrator's Office
575 Administration Drive, Suite 104A
Santa Rosa, CA 95403
E-Mail: Cannabis@sonoma-county.org

Re: Sonoma County Cannabis Land Use Ordinance Update and General
Plan Amendment and Draft Subsequent Mitigated Negative
Declaration

Dear Commissioners:

This firm represents Save Our Sonoma Neighborhoods ("SOSN") in connection with the Sonoma County Cannabis Land Use Ordinance Update and General Plan Amendment ("Project"). This firm concurrently represents the Friends of Mark West Watershed and will submit separate comments on their behalf. SOSN is concerned that allowing ministerial approval of cannabis cultivation and production sites will have substantial negative effects on the character of rural residential areas, damage sensitive resources, and reduce the quality of life for all County residents.

The purpose of this letter is to inform Sonoma County that the Subsequent Mitigated Negative Declaration ("SMND") for the Project fails to comply with the requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 et seq., and the CEQA Guidelines, California Code of Regulations, title 14, § 15000 et seq. ("Guidelines"). As detailed below, numerous inadequacies and omissions in the SMND render it insufficient as an environmental review document. The SMND fails to disclose, analyze, and propose adequate mitigation for significant environmental impacts related to air quality, odor, aesthetics, hydrology and water quality, groundwater supply, transportation, greenhouse gas emissions, and loss of agricultural land, and cumulative effects, among others. What analysis the SMND does present is fraught with

errors. For example, the SMND's analysis of the Project's odor impacts fails to employ accepted methods of analyzing odor impacts, fails to present a thorough evaluation of impacts, and fails to provide evidence that identified mitigation will be effective. In addition, the countless vague, voluntary, and unenforceable mitigation measures in the SMND fail to comply with CEQA, which requires enforceable, concrete commitments to mitigation. As a result, the SMND fails to describe measures that could avoid or substantially lessen the Project's numerous significant impacts. In addition, the SMND fails to provide any meaningful analysis of allowing events at cannabis cultivation sites. The pervasive flaws in the document demand that the County prepare an Environmental Impact Report ("EIR") and circulate it for review and comment by the public and public agencies.

This letter is submitted along with the report prepared by our expert consultant, Greg Kamman, Senior Ecohydrologist with CBEC Ecoengineering, whose letter dated March 16, 2021 is attached as Exhibit 1 ("Kamman Report").

I. The County may not approve the Project without preparing an environmental impact report under CEQA.

CEQA is designed to ensure that "the long-term protection of the environment shall be the guiding criterion in public decisions." *Friends of College of San Mateo Gardens v. San Mateo County Community College District* (2017) 11 Cal.App.5th 596, 604 [hereinafter "*San Mateo Gardens I*"] (quoting *No Oil, Inc. v. Los Angeles* (1974) 13 Cal.3d 68, 74). Thus, the statute requires an agency evaluating a project to develop an EIR whenever "substantial evidence supports a fair argument that a proposed project 'may have a significant effect on the environment.'" *Committee for Re-Evaluation of T-Line Loop v. San Francisco Municipal Transportation Agency* (2016) 6 Cal.App.5th 1237, 1245-46 (quoting *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1123).

When an agency approves changes to a previously approved project studied in a prior negative declaration, additional subsequent environmental review is required when "whenever there is substantial evidence to support a fair argument that proposed changes 'might have a significant environmental impact not previously considered . . .'" *San Mateo Gardens II*, 11 Cal.App.5th at 606 (quoting *Friends of College of San Mateo Gardens v. San Mateo County Community College District* (2016) 1 Cal.5th 937, 959 [*"San Mateo Gardens I"*]; see also *San Mateo Gardens I*, 1 Cal.5th at 953. In other words, an agency *must* prepare a subsequent EIR if substantial evidence supports a fair argument that the proposed changes to the project may result in a significant environmental impact. *San Mateo Gardens II*, 11 Cal.App.5th at 606-07. Proposed

changes might have a significant impact “when there is some competent evidence to suggest such an impact, even if other evidence suggests otherwise.”¹ *Id.* at 607.

The fair argument standard establishes a “low threshold” for requiring a lead agency to prepare an EIR. *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928. Courts “owe no deference to the lead agency’s determination,” and judicial review must show “*a preference for resolving doubts in favor of environmental review.*” *Id.* (italics in original). Further, where the agency fails to study an entire area of environmental impacts, deficiencies in the record “enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences.” *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311.

Substantial evidence supporting a fair argument may consist of personal observations of local residents on nontechnical subjects, *Oro Fino Gold Mining Corp. v. Cty. of El Dorado* (1990) 225 Cal.App.3d 872, 882; *Protect Niles v. City of Fremont* (2018) 25 Cal.App.5th 1129, 1152, as well as expert opinion supported by facts—even if that opinion is not based on a specific analysis of the project at issue, *Pocket Protectors*, 124 Cal.App.4th at 928. In marginal cases, where it is not clear whether there is substantial evidence that a project may have a significant impact and there is a disagreement among experts over the significance of the effect on the environment, the agency “must treat the effect as significant” and prepare an EIR. CEQA Guidelines § 15064(g); *City of Carmel-By-The-Sea v. Board of Supervisors*, (1986) 183 Cal.App.3d 229, 245.

As explained further below, ample evidence supports a “fair argument” that the Project may result in significant environmental impacts that were not studied in the 2016

¹ The relevant analysis under CEQA’s subsequent review provisions concerns the changes since the original Medical Cannabis Land Use Ordinance was adopted in 2016, and not only the changes since the 2018 Amendments to allow adult use cannabis. This is because the 2016 Ordinance was studied in a negative declaration, while the Board of Supervisors determined that the 2018 Amendments were exempt from CEQA. *See* Resolution No. 18-0442 (Oct. 16, 2018). CEQA’s subsequent review provisions apply only when there has been a prior *environmental review*. *See* Pub. Res. Code § 21166 (applies “[w]hen an environmental impact report has been prepared for a project”); Guidelines § 15162 (applies “[w]hen an EIR has been certified or a negative declaration adopted for a project”). In any event, the development potential allowed by the 2018 Amendments has not been fully realized. *See* SMND at 18. To the extent the Project would facilitate new development in areas opened to cannabis in 2018, that new development potential must be analyzed as a foreseeable effect of this Project.

Negative Declaration. These impacts would include, but not be limited to: air quality, odor, greenhouse gases, aesthetics, hydrology and water quality, groundwater supply, fire safety, transportation, and loss of agricultural land, among others. Because the Project has the potential to result in significant impacts, the County is required to prepare an EIR before it may approve the Project.

II. The descriptions of the Project and the environmental setting are inadequate.

A. The Project description is incomplete, inaccurate, and inconsistent.

In order for a CEQA document to adequately evaluate the environmental ramifications of a project, it must first provide a comprehensive description of the project itself. “An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.” *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus*, (1994) 27 Cal.App.4th 713, 730. As a result, courts have found that even if an environmental document is adequate in all other respects, the use of a “truncated project concept” violates CEQA and mandates the conclusion that the lead agency did not proceed in the manner required by law. *Id.* at 729-30. Furthermore, “[a]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity.” *Id.* at 730 (citation omitted). Thus, an inaccurate or incomplete project description renders the analysis of significant environmental impacts inherently unreliable.

As an initial matter, the SMND does not provide a meaningful description of the “development potential”—*i.e.*, the scope and extent of cannabis cultivation and other commercial cannabis activities—that may be permitted by the proposed updates to the cannabis ordinance (“Ordinance”). The CEQA Guidelines define “project” as “the whole of an action” that may result in a direct or reasonably foreseeable indirect change in the environment, and require the lead agency to fully analyze each “project” in a single environmental review document. CEQA Guidelines § 15378(a); *see also* Guidelines §§ 15165, 15168. CEQA further requires environmental review to encompass future actions enabled or permitted by an agency’s decision. *Christward Ministry v. Superior County* (1986) 184 Cal.App.3d 180, 194; *City of Redlands v. County of San Bernardino* (2002) 96 Cal.App.4th 398, 409 (“An evaluation of a ‘first phase-general plan amendment’ must necessarily include a consideration of the larger project, *i.e.*, the future development permitted by the amendment.”).

Here, the SMND purports to provide an outer limit on possible development. The SMND states that “a maximum of up to 65,753 acres” could be subject to future cannabis cultivation. SMND at 16,19. This acreage is 10% of the 657,534 acres in the County that are both zoned for agricultural or resource uses and located on parcels larger than 10

acres, likely to reflect the Project's limit on outdoor cannabis cultivation area to 10% of a parcel. *Id.* As explained below, the SMND's description of the Project's development potential is misleading and inadequate to allow the public and decisionmakers to accurately assess the potential effects of the Ordinance.

Troublingly, the SMND omits any analysis of the possible extent of cannabis cultivation in existing permanent structures. The Ordinance itself contains *no limits* on indoor and greenhouse cultivation canopy in existing permanent structures. *See* proposed § 38.12.030(A)(2) ("Indoor cultivation and greenhouse cultivation canopy in an existing permanent structure is not limited."). The SMND should include a description—or at least an estimate—of the number and extent of existing permanent structures in the County that may be converted to cannabis cultivation and their square footage. The base zoning presumably limits the amount of existing permanent structures plus new permanent structures, so the County could accurately calculate the total amount of indoor cultivation allowed using its existing databases. The SMND should also analyze how much cannabis may be grown in such indoor spaces—especially since indoor cultivation can occur on shelved units, potentially *quadrupling* the canopy area possible in an existing structure. *See* Exhibit 2, Borroughs, Vertical Cultivation (website for retailer of horticultural grow shelves for cannabis operations; "Shelves are engineered for single, double, triple, and even quadruple stacks"). In addition, indoor cultivation can have as many as five harvests per year. This existing permanent structure loophole could portend significant impacts on the environment that have not been analyzed. Because the Ordinance allows an unknown, but potentially massive, amount of indoor cannabis cultivation, the corresponding impacts (in terms of increased water usage, energy usage, VMTs, greenhouse gas emissions, etc.) are similarly unknown, and potentially vast.

The Ordinance also apparently allows indoor cultivation in existing permanent structures *in addition to* both (1) indoor cultivation in up to 43,560 square feet of new or expanded permanent structures *and* (2) outdoor cultivation of 10% or less of a parcel. *See* proposed § 38.12.030(B) (limitations on indoor cultivation apply to "all *new* building coverage," not to *total* building coverage). For example, a grower on a 10-acre parcel could have 1 acre of outdoor cannabis cultivation, in addition to 43,560 square feet of cultivation in a new or expanded permanent structure, plus additional indoor cultivation in existing permanent structures currently on the parcel. As a result, the County's assumption that cannabis activities would occur on no more than 10% of the 657,534 eligible acres is incorrect. The Project could result in converting significantly greater acreage to cannabis cultivation.

The County's incomplete and inaccurate estimate of the Project's full development potential could conceal significant potential impacts. For example, the SMND's hydrology analysis concludes that groundwater supply impacts would likely be less than

significant because of “the relatively low quantities of water use (from .002 to 1.8 acre-feet per year).”² SMND at 69. The SMND then explains that the size limitations—10 percent of a parcel for outdoor grows and no more than one acre of *new* building coverage—would limit water use at individual sites. SMND at 69. This analysis, however, does not take into account the fact that each site can apparently include outdoor cultivation, indoor cultivation in new structures, and additional indoor cultivation in existing structures; or that indoor cultivation can be multi-tiered or stacked for greater growing area in the same building footprint. Greenhouses and hoop houses can harvest three to five crops per year, a fact the SMND neither mentions nor analyzes. Thus, because of the flawed Project description, the SMND’s analysis could be significantly underestimating the amount of water demand that could be created by the Project, which could impact both hydrological and biological resources.

In addition to the flaw identified above, and as described at greater length in section IV, below, the SMND incorrectly describes a central feature of the Project as the conversion of commercial cannabis permitting in agricultural and resource zones from a discretionary to a ministerial process. SMND at 5, 8. The SMND further asserts that various proposed provisions in Article 12 of Chapter 38 set forth standards that do not require the exercise of discretion. SMND at 8-13.

The County’s description of the “ministerial” nature of the permit review process established by the Ordinance is inaccurate and misleading: the Ordinance establishes a process that *requires* County officials and staff to exercise discretion. For example, the SMND implies that the County does not need to exercise discretion in evaluating biological resources because permit applications must include “a biotic resource assessment prepared by a qualified biologist that demonstrates,” among other things, that the activity subject to the permit “will not impact sensitive or special status species habitat.” SMND at 39. The Ordinance also requires discretionary review of a permit application if the qualified biologist recommends mitigation measures. *Id.* The Project,

² By the SMND’s own explanation of how to convert inches per year to acre-feet, SMND at 69, fn. 1, these figures appear to be incorrect. If cannabis requires 25-35 inches per year of water for outdoor grows and 20-25 inches per year for indoor grows, SMND at 69, then, assuming a cultivation area of one acre, water use should be approximately 2-3 acre feet per year. Of course, this estimate does not account for possible cultivation on areas considerably larger than one acre or multiple crops per year in hoop houses or greenhouses. And, as explained at greater length by hydrologist Greg Kamman, these figures appear to be gross underestimates. *See* Exhibit 1, Kamman Report (March 16, 2021) (citing estimates of water use from cannabis that are 172%-746% higher than those estimates provided in the SMND).

however, does not include any objective standards to guide County officials in determining whether the biologist's assessment is adequate. Thus, County officials will have to exercise their discretion in making these determinations. *People v. Department of Housing & Community Development* (1975) 45 Cal.App.3d 185, 193-94 (holding that a permit process granting officials broad power to determine whether particular elements were sufficient or adequate required the exercise of discretion). The Project contains many similar examples of plans, studies, and reports prepared by experts, see section IV below, each of which suffers from the same defect. *See also* Exhibit 1, Kamman Report (March 16, 2021) (discussing hydrogeologic reports required for cannabis supply wells located in a priority groundwater basin: "It is my opinion that report/plan review is a discretionary process integral to the authorization of a cannabis cultivation permit that can't be done under a ministerial process.").

The SMND also contains an incomplete and inconsistent description of the special events that may be permitted as part of the Project. For example, the SMND states that the Project would no longer prohibit cannabis-related tours and events, SMND at 5, and that such events would "be *subject to existing regulations* in the Zoning Code," SMND at 13 (emphasis added). The SMND also states, however, that the County is developing a "Winery Events Ordinance" that may address cannabis-related special events. SMND at 18. This assertion that events would be governed by regulations currently under development directly contradicts the prior statement that events would be subject to *existing* regulations. Additionally, because the SMND contains no additional details about the planned winery events ordinance, it is impossible for the public or decision makers to determine what events may be permitted, let alone whether those cannabis-related events will cause or contribute to a significant environmental impact (e.g., by increasing noise, traffic, greenhouse gas emissions, wildland fire evacuation issues, or vehicle miles traveled).

The SMND is similarly inconsistent and inaccurate in its description of the relationship between cannabis cultivation and other forms of agriculture. A core feature of the Project is the revision of the General Plan to include cannabis cultivation within the definition of agricultural land use. SMND at 6. To support this change, the SMND asserts that cannabis cultivation "functions similarly to other agricultural operations." SMND at 14. The SMND, however, repeatedly contradicts this conclusion. For example, the SMND states that, "*due to the unique characteristics of cannabis operations*, under the updated Ordinance *provisions applicable to traditional agriculture are expressly not applicable to cannabis cultivation*." SMND at 25 (emphasis added). The SMND also describes the unique impacts cannabis may have on the environment compared to traditional forms of agriculture. For example, the SMND states that cannabis cultivation and processing operations "generate distinctive odors" that can be "reminiscent of

skunks, rotting lemons, and sulfur.” SMND at 33; *see also* SMND at 34 (acknowledging that cannabis cultivation “can generate particularly strong odors” compared to other agricultural land uses); Exhibit 3, Thomas Fuller, *‘Dead Skunk’ Stench from Marijuana Farms Outrages Californians*, New York Times (Dec. 19, 2018) (noting that Sonoma County received hundreds of complaints related to cannabis odor in 2018, and quoting an individual living near a cannabis grow: “It’s as if a skunk, or multiple skunks in a family, were living under our house. . . . It’s beyond anything you would imagine.”). Cannabis cultivation also involves different aesthetic, energy, and hazardous materials practices compared to traditional agriculture. *See* SMND at 19 (explaining that cannabis “often involves the use of visible structures”); SMND at 23 (stating that cannabis may include new light sources in otherwise dark areas); SMND at 48 (describing cannabis’s uniquely significant energy demands); SMND at 62 (describing hazardous components of high-powered lights used in cannabis operations). Cannabis cultivation is an intensive land use, involving foul odors and energy and other infrastructure demands, that is more similar to industrial uses than to traditional agriculture. *See, e.g.*, Exhibit 4, John W. Bartok, Jr., Cannabis Business Times, *Greenhouse Efficiency Guide: 21 Cannabis Greenhouse Design Considerations* (describing features like conveyors, heating and hot water boiler systems, fan and louver systems for ventilation, and supplemental lighting requirements). The SMND’s inconsistent and inaccurate characterization of cannabis as similar to traditional agriculture is misleading to the public and decisionmakers and serves to conceal cannabis’s unique features (odor, energy demand, changes in the visual character of rural areas, etc.) that could contribute to the Project’s significant environmental impacts.

The Project description is also muddled by the County’s adoption of an entirely new Chapter 26 of the Zoning Code on February 9, 2021. While the current Project includes revisions to Chapter 26, the revisions released with the SMND show changes to the *old* Chapter 26, rather than changes to the *new* Chapter 26 adopted on February 9. The competing versions of Chapter 26 make reviewing the Project more complicated and confusing. Furthermore, they hinder the public’s ability to conduct a meaningful review of the changes the proposed Project would cause to the County Code text, implementation of the permitting regime and the physical environment. As a result, it is not possible to determine the full scope or extent of the physical impacts that would result from the Project, which violates CEQA. The County must prepare an EIR that shows the changes that would result as applied to the *new* Code, and include an analysis of the cumulative impact of the Project with the Board’s recent action to update Chapter 26.

B. The SMND’s description of the environmental setting is inadequate.

The SMND also fails to describe the Project setting as required by CEQA and the CEQA Guidelines. An environmental document “must include a description of the

physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if a notice of preparation is not published, at the time environmental analysis is commenced, from both a local and regional perspective.” CEQA Guidelines § 15125(a). This description of the environmental setting constitutes the baseline physical conditions by which a lead agency determines the significance of an impact. *Id.* “Knowledge of the regional setting is critical to the assessment of environmental impacts.” CEQA Guidelines § 15125(c). Without such an understanding, any impacts analysis or proposed mitigation becomes meaningless.

The environmental setting section of the SMND consists of four paragraphs and a single map describing (1) the location and extent of lands zoned for agriculture, (2) the number of agricultural acres located on parcels larger than 10 acres, (3) the right-to-farm ordinance, and (4) the number of cannabis permits currently issued and in process. SMND at 16-18.

This bare description of land uses falls far short of the description of physical environmental conditions in the vicinity of the project that is required. For example, the environmental setting entirely lacks a description of where the County’s water resources are located. Although the SMND later acknowledges that “[o]ver 80% of the county is designated in marginal Class 3 or 4 zones where groundwater supplies are limited and uncertain,” SMND at 69, there is no map or overlay showing where these zones are located and whether (and how) they overlap with areas in which cannabis cultivation may be permitted. This omission makes it difficult to assess whether the Project will have a substantial impact on groundwater supplies.

The same flaw is duplicated as to sensitive waterways and riparian habitats. The SMND does not describe how the County’s sensitive waterways may overlap with areas that could be subject to cannabis cultivation.³ This omission conceals what is likely to be a significant impact of the Project. For example, a comparison of maps of the Mark West Watershed and County zoning maps shows that most of the watershed is covered by the LIA, LEA, and RRD zoning designations, in which the Project would ministerially permit cannabis cultivation. *See* Exhibit 5, Integrated Surface and Groundwater Modeling and Flow Availability Analysis for Restoration Prioritization Planning, Upper Mark West Creek Watershed, Sonoma County, CA (Dec. 2020), Figure E1, Page 2. The SMND also fails to consider or describe the likely linkages between surface water features and groundwater. To fully and accurately analyze whether the Project will have an effect on stream flows—and species and habitats dependent on those flows—in sensitive

³ While the Project includes required setbacks from riparian corridors, SMND at 40, to assess the effectiveness of those setbacks, the public and decisionmakers must know the extent of cannabis cultivation that may be permitted near waterways.

waterways, the County should describe the relationships between the County's groundwater basins, its surface waterways, and the areas where cannabis cultivation may be permitted. *See* Exhibit 6, Letter from Robert Coey, National Marine Fisheries Service (Feb. 26, 2021) (explaining that groundwater use by cannabis cultivators may affect surface streams and their resident threatened and endangered species).

Continuing the pattern of inadequate information provision, the SMND further fails to show the location of sensitive receptors in or near the zones in which cannabis may be permitted. For example, the SMND concludes that “most future cultivation projects that would use hazardous materials . . . would be removed from existing or proposed school sites” because cannabis cultivation would be permitted in districts “which are generally located in more rural areas of the county.” SMND at 64. This level of analysis is inadequate and reflects an inadequate description of physical conditions with respect to sensitive receptors. The County surely possesses information on the location of schools in the County (as well as the locations of retirement homes, convalescent homes, hospitals, medical clinics, and drug and alcohol rehabilitation centers, which are relevant to the air quality analysis under CEQA). It should be a simple matter to include a map showing the locations of these sensitive receptors in relation to the zones in which cannabis may be permitted—or, absent a map, a description of the actual numbers of these types of facilities located within a certain distance of the applicable zones. Only with such information can the public and decisionmakers determine whether the Project would have a significant impact on these facilities and whether the County has required sufficient mitigation to reduce those significant impacts.

In addition to these flaws, the SMND's description of the baseline conditions relevant to wildfires and fire risk is inadequate. Wildfire conditions in the State are changing. California is experiencing record-high temperatures: summers are 2.5 degrees warmer than they were several decades ago, and they are likely to get even hotter. *See* Exhibit 7, Susanne Rust et al., *How climate change is fueling record-breaking California wildfires, heat and smog*, Los Angeles Times (Sep. 13, 2020). These high temperatures remove moisture from plants and soils, increasing fire danger and adding combustible fuel to the landscape. *Id.*; *see also* Exhibit 8, Anne Mulkern, *Fast-Moving California Wildfires Boosted by Climate Change*, Scientific American (Aug. 24, 2020) (“Hotter temperatures, less dependable precipitation and snowpack that melts sooner lead to drier soil and parched vegetation,” according to UCLA climate scientist Daniel Swain). According to CalFire, the 2020 wildfire season burned over 4.2 million acres—over 4% of the State—in nearly 10,000 incidents; 33 people died; and over 10,000 structures were damaged and destroyed. *See* Exhibit 9, 2020 Incident Archive, CalFire. As of September 13, 2020, that year had already brought six of the 20 largest wildfires in California's history. *See* Exhibit 7, Rust et al.

Sonoma County has acutely experienced the impact of this changing risk profile. As the County is aware, since 2016, about 25 percent of the County's total acreage has burned in a series of devastating wildfires. Each year has brought a steady succession of damaging blazes. The 2017 Sonoma Complex Fires damaged 112,000 acres in the county; the 2019 Kincade Fire, 78,000 acres; and the 2020 wildfires, approximately 125,000 acres.⁴ *See* accounts of recent wildfire seasons by the Sonoma County Agricultural Preservation and Open Space District in Exhibits 10 (2017 Sonoma Complex Fire), 11 (2019 Kincade Fire); and 12 (2020 Wildfires). Frequent wildfires also can allow conversion of burned habitats to non-native plants that burn more easily, further increasing wildfire risk for affected areas. *See* Exhibit 13, Tiffany Yap, et al., Center for Biological Diversity, *Built to Burn: California's Wildlands Developments Are Playing With Fire* (Feb. 2021), p. 4.

While the SMND describes recent fires in Sonoma County, (SMND at 98), it does not adequately describe the physical conditions contributing to wildfire risk. In addition to describing the climatic conditions above, the environmental setting should include descriptions of: (1) areas designated by Cal Fire to be at very high risk in which cannabis permits may be issued; (2) areas where cannabis cultivation may be permitted adjacent to "areas with low- to intermediate-housing density," wildland vegetation, and limited emergency access, *see* SMND at 98; and (3) the current state of the County's roadways in areas where cannabis may be permitted. Regarding the first two items, the location of development—particularly developments like indoor cannabis cultivation and hoop houses (which may have associated electrical equipment, § 38.18.020) involving electrical infrastructure—significantly contributes to wildfire risk. *See* Exhibit 13, Tiffany Yap, et al., at 1 ("Almost all contemporary wildfires in California, 95-97%, are caused by human sources such as power lines, car sparks and electrical equipment. Building new developments in highly fire-prone wildlands increases unintentional ignitions and places more people in danger."). Regarding roadways, the third item, the County itself has acknowledged that roadways in RRD zones provide inadequate access for emergency vehicles. *See* Exhibit 14, Discussion Paper: Key Issues and Policy Options, Cannabis Cultivation within Resources and Rural Development (RRD) Lands ("The remote RRD zoned areas are primarily accessed by one lane gravel roads that are remnants of old logging roads. Most cultivation facilities would be required to construct paved, 2-way roads with an 18-foot minimum width, sufficient for emergency vehicle

⁴ This totals 315,000 acres. Sonoma County has 1.32 million acres, so 27.8 percent of the county burned from 2017 to 2020. *See*, https://en.wikipedia.org/wiki/Sonoma_County,_California.

access.”).⁵ For the public and decisionmakers to accurately assess whether the cannabis activities permitted by the Project will expose individuals to a significant wildfire risk, the environmental setting must fully describe the existing conditions in which those activities would occur.

The environmental setting’s discussion of the current status of cannabis cultivation operations in the County is also inadequate. The SMND notes that 78 ministerial permits and 32 conditional use permits have been issued, and 78 ministerial and 55 conditional use permits are in process. SMND at 18. But particularly because, as the SMND notes, these permits may include renewals, they may involve activities other than cultivation, and may include more than one license for the same location, these figures do not convey any meaningful information about the scope of cannabis activity currently permitted in the County. At the very least, the SMND should state the total acreage permitted for cultivation, broken down by the zoning district in which it is located. This data is needed to inform the County’s analysis of cumulative impacts, as well as to reveal the scope of potential new development that may be allowed by the Project.⁶

The SMND’s discussion of cannabis operations in the County is also inadequate because it almost entirely ignores illegal cultivation, including its extent and its associated impacts. The SMND notes, without further elaboration or detail, that “[m]any cannabis operations have been operating illegally within the RRD land use areas.” SMND at 67. It does not provide even an *estimate* of the number, extent, or actual impacts of these illegal cultivation operations. The extent of illegal operations in the County is an important part of the existing environmental baseline. As the SMND itself acknowledges, unregulated cannabis cultivation can be extremely damaging to the environment. Illegal cannabis cultivation: “has been associated with impacts to biological resources,” including to sensitive species and their habitats, SMND at 38; has caused negative impacts to waterways, SMND at 55; and creates “high fire risk” related to “inadequate or improper electrical equipment” and explosions “due to the use of volatile chemicals,” all located in “high fire hazard areas due to steep slopes, dense vegetation, and insufficient emergency services due to a lack of safe emergency vehicle access,” SMND at 67.

Indeed, the conversion of illegal operations to permitted grows and the associated reduction in environmental impacts was a significant assumption underlying the County’s

⁵ Available at

<http://sonomacounty.ca.gov/WorkArea/DownloadAsset.aspx?id=2147525642>.

⁶ The county's ArcGIS data indicates 8,289 parcels meet the criteria of being 10 or more acres and have agricultural or resource zoning: RRD (4,015); LIA (1,158); LEA (1,158); DA (1,665).

determinations that (1) the 2016 Ordinance would not have a significant impact and (2) the 2018 Amendments were exempt from CEQA. *See* 2016 Negative Declaration, p. 2 (“This Ordinance would provide a regulatory structure, with operational standards, to allow existing operators to become permitted.”); Resolution 18-0442, p. 3 (“[T]he Ordinance expands regulation of the County’s cannabis industry to encompass adult-use for the full supply chain, encouraging illegal cannabis cultivators to come into compliance with the environmental protection standards provided for in the Ordinance.”). The 2016 Negative Declaration estimated that there were as many as *ten thousand* existing (unregulated) cultivators, the majority of which were located in the RRD zone. 2016 Negative Declaration at 2. According to the 2016 Negative Declaration, “[u]nregulated cannabis cultivation is associated with habitat destruction, pollution of waterways, illegal road construction causing erosion and increased sedimentation, unauthorized use of pesticides, illegal water diversion, large amounts of trash, human waste, non-biodegradable waste, and excessive water and energy use,” as well as “offensive odor, security and safety concerns,” and “use of hazardous materials.” *Id.* An analysis in Bennett Valley found that “[c]ontrary to the ordinance’s stated goals, no ongoing operations were legalized in Bennett Valley; all began after the supervisors invited cultivation here.” Harrison, Status of Commercial Marijuana Projects in Bennett Valley, Bennett Valley Voice (January 2021), Exhibit 15.

To accurately assess the Project’s impacts on the current environment, the County must provide data and analysis concerning current status of illegal operations on the County. The County and the public must be able to determine whether the current regulations have succeeded in converting illegal operations to permitted grows or if, in fact, the legal, regulated regime has grown up alongside and in addition to the prior illegal regime. Indeed, evidence suggests that the latter is more likely. *See* Exhibit 16, Thomas Fuller, The New York Times, ‘*Getting Worse, Not Better*’: *Illegal Pot Market Booming in California Despite Legalization* (Apr. 27, 2019) (since legalization, “the unlicensed, illegal market is still thriving and in some areas has even expanded.”); Exhibit 17, Joseph Detrano, Rutgers Center of Alcohol & Substance Abuse Studies, *Cannabis Black Market Thrives Despite Legalization* (noting that unregulated cannabis may be cheaper than legal product, and thus more attractive, because it is not subject to tax). But without this information, it is impossible for the County and the public to assess the Project’s impacts, including (1) whether the Project will reduce impacts of illegal grows by bringing cultivators into compliance, or (2) whether the County’s environmental baseline is significantly off because it fails to account for the impacts associated with thousands of illegal operations.

In short, the SMND’s incomplete description of the Project and its environmental setting frustrates the core goals of CEQA: to provide a vehicle for intelligent public

participation and to provide an adequate environmental impact analysis. See *County of Inyo v. City of Los Angeles*, (1977) 71 Cal.App.3d 185, 197.

III. The SMND’s analysis impermissibly focuses solely on the impacts of individual permits and fails to adequately analyze the impacts of the Project as a whole.

The CEQA Guidelines define a “project” as “*the whole of an action*” that may result in a direct or reasonably foreseeable indirect change in the environment. Guidelines § 15378(a). “‘Project’ is given a broad interpretation in order to maximize protection of the environment.” *McQueen v. Bd. of Directors* (1988) 202 Cal.App.3d 1136, 1143 (disapproved on other grounds). The analysis of a project’s environmental effects must occur at the earliest discretionary approval. See, e.g., *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 396 (EIR must analyze future action that is a “reasonably foreseeable consequence” of the initial action that would “likely change the scope or nature” of the effects of the initial action).

A lead agency considering an ordinance or a general plan amendment must analyze the impacts of all the potential activity that may be permitted by or could foreseeably result from those actions. See *Terminal Plaza Corp. v. City and County of San Francisco* (1986) 177 Cal.App.3d 892, 905 (City was required to prepare an EIR to analyze the reasonably foreseeable effects of an ordinance). This analysis is required even though enacting an ordinance or general plan amendment is, in itself, an action that occurs largely on paper. See Guidelines § 15378(c) (“The term ‘project’ refers to the activity which is being approved” and not “each separate governmental approval.”). CEQA documents must analyze an ordinance’s full potential level of development. As the court in *City of Redlands v. County of San Bernardino* explained, “an evaluation of a ‘first phase-general plan amendment’ must necessarily include a consideration of the larger project, i.e., the *future development permitted by the amendment*.” (2002) 96 Cal.App.4th 398, 409 (emphasis added). Environmental review of the development allowed by a planning enactment must take place regardless of whether that development will actually materialize. See *Bozung v. Local Agency Formation Comm’n of Ventura County* (1975) 13 Cal.3d 263, 279, 282; *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 194–95 (“The fact future development is not certain to occur and the fact the environmental consequences of a general plan amendment changing a land use designation are more amorphous does not lead to the conclusion no EIR is required”); *City of Carmel-by-the-Sea v. Board of Supervisors of Monterey County* (1986) 183 Cal.App.3d 229, 235 (EIR for rezoning must be prepared even though “no expanded use of the property was proposed”). The lead agency’s obligation to *fully* review an activity’s potential environmental effects applies even when the activity is subject to later discretionary approvals. *Laurel Heights*, 47 Cal.3d at 396. That obligation is especially

important, however, when the later approvals would be ministerial and would not present an opportunity for further environmental review or mitigation.

Here, the SMND fails to analyze the impacts of the Project as a whole—i.e., whether the sum of all potential activities that may be allowed by the Ordinance would have a significant environmental impact. Instead, the SMND repeatedly bases its analysis of the Project’s impacts on whether *each individual permit* that may be issued under the Ordinance would have a significant effect or violate a threshold of significance. This type of analysis is impermissible. *Cf. Bozung v. Local Agency Formation Commission* (1975) 13 Cal.3d 263, 283-84 (“[E]nvironmental considerations do not become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences.”). The County’s analysis is equivalent to determining that a massive shopping center development would not have a significant impact on the environment because the impacts of each individual store would be less than significant. This type of analysis does not inform the public or decisionmakers about the effects of the Project as a whole.

For example, the SMND’s analysis of vehicle miles traveled (“VMT”) is improperly focused on the impacts of individual permits rather than the Project as a whole. The VMT analysis uses screening criteria applicable to “small projects” that generate fewer than 110 vehicle trips per day. SMND at 89. The SMND then explains that “many, if not most, cannabis cultivation projects” would generate fewer than 110 average daily trips; and that larger projects exceeding 110 average daily trips would have to implement measures to reduce VMT. *Id.* As a result, the SMND concludes that VMT-related impacts would be less than significant. *Id.*

The proper frame for analysis of VMT is not the VMT that would be generated by each individual permit, but the VMT that would be generated by all potential permits allowed by the Project. According to the Office of Planning and Research (“OPR”), general plans or other land use plans “may have a significant impact on transportation if proposed new . . . land uses would *in aggregate* exceed” thresholds of significance recommended by OPR. Exhibit 18, OPR, Technical Advisory: On Evaluating Transportation Impacts in CEQA (December 2018), at p. 18 (emphasis added). OPR’s recommended thresholds state, for example, that office projects may have significant impacts if their VMT exceeds the threshold of 15% below existing regional VMT per employee, or retail projects may have significant impacts if they create a net increase in total VMT.⁷ *Id.* at pp.15-16. Instead of relying on the aggregate thresholds described by

⁷ The same OPR document warns that “isolated rural development” of the sort contemplated in the present Project (which concerns development in RRD districts) lacks

OPR, the SMND's analysis employing the "small project" threshold effectively defines "the Project" as an individual permit, rather than as the Ordinance and General Plan Amendment.⁸ This is impermissible. The County must correct this VMT analysis, using an appropriate threshold and frame of analysis that focuses on the Project as a whole. *See* Guidelines § 15378(a); *City of Redlands*, 96 Cal.App.4th 398.

The SMND's analysis of biological resources is similarly flawed. The Project requires each applicant to include a biotic resource assessment that "demonstrates that the cannabis cultivation area and related structures and development will not impact sensitive or special status species habitat." SMND at 39. Each assessment, however, will focus on the impacts from "the cannabis cultivation area" associated with an individual permit, and not the combined potential impacts of all of the cannabis permits allowed by the Project. The SMND concludes that these assessments, combined with exclusions from limited biotic habitat combining zones and setbacks from riparian corridors, would result in a less than significant impact to sensitive species and riparian habitat. SMND at 40-41.

This myopic analysis misses significant potential impacts of the Project as a whole. The SMND acknowledges that cannabis activities will rely on a combination of surface or well water sources. SMND at 69. It then concludes that it is unlikely that cultivators using groundwater would result in overdraft. *Id.* This conclusion, however, is not explained and is based on unsupported estimates of groundwater usage from cannabis cultivators. *See* Exhibit 1, Kamman Report (March 16, 2021) (criticizing the SMND's conclusion). But even assuming that each individual cultivator's water usage is not enough, on its own, to reduce water supplies in a way that threatens sensitive species and

the VMT benefits present for projects in small towns or cities with access to transit. *Id.* at p. 21.

⁸ The SMND briefly gestures toward the threshold addressing 15% reductions below existing VMT levels. SMND at 89. However, the analysis that follows suggests that the Project would *exceed* this threshold, stating that new projects would be "located in rural areas of the County, where existing average trip lengths are higher." *Id.* The SMND also notes that the conversion of existing agriculture to cannabis cultivation would not necessarily result in additional trips, SMND at 89, but this statement is contradicted by the SMND itself and unsupported by any evidence. On the previous page, the SMND states that large greenhouse cultivation operations could result in additional vehicle trips compared to existing uses. SMND at 88 ("[L]arge greenhouse cultivation operations could have 100 to 200 employees commuting to cultivation sites, resulting in additional vehicle trips compared to existing agricultural uses."). Further, the SMND does not appear to assess, let alone to support with evidence, whether cannabis is likely to replace existing agricultural acreage as opposed to adding additional acreage.

riparian habitat, a group of cultivators all drawing water from the same surface water source, from hydrologically-linked surface water sources, or from hydrologically-linked groundwater basins could significantly decrease the water available for in-stream flows despite required setbacks, potentially harming the plant and animal species that rely on those flows. *See also* Letter from Friends of Mark West Watershed to the Planning Commission dated March 18, 2021.

The combined impact of multiple cultivators drawing upon limited groundwater supplies could have significant impacts on biological resources. For example, a recent analysis of streamflow in the Mark West Watershed prepared for the Sonoma Resource Conservation District and California Wildlife Conservation Board emphasized the importance of groundwater to providing habitat for sensitive species. According to the streamflow analysis, groundwater discharge “represents the primary process responsible for generating summer streamflow” in the watershed. Exhibit 5, Jeremy Kobor, et al., Integrated Surface and Groundwater Modeling and Flow Availability Analysis for Restoration Prioritization Planning, Upper Mark West Creek Watershed, Sonoma County, CA (Dec. 2020) at p. 3. The report also showed that human consumption of groundwater threatens streamflow, concluding that groundwater pumping depleted streamflows over the long term. *Id.* at p. 11. The study determined that increased demand for groundwater, combined with other factors, make efforts to sustain or improve streamflows “of paramount importance for coho recovery” in the watershed. *Id.* at p. 25; *see also id.* at 1 (“The Mark West Creek watershed provides critical habitat for threatened and endangered anadromous fish”). Similarly, hydrogeologist Greg Kamman emphasized that one of his “biggest concerns” regarding stewardship of natural resources in Sonoma County is “the increased demand on already stressed groundwater supplies.” Exhibit 1, Kamman Report (March 16, 2021).

The biotic resources assessments, with their narrow focus on each individual permit applicant’s activities, would not address the combined effects of multiple permittees decreasing groundwater available for streamflows. An EIR for the Project that analyzes these combined potential effects of all potential permits allowed by the Project is the proper place for this analysis, as well as an analysis of feasible mitigation to address such impacts.

IV. The permit approval process contemplated by the Ordinance requires the exercise of discretion by County officials.

The Ordinance purports to allow “ministerial” approvals of commercial cannabis operations throughout the County. Yet, proposed Chapter 38 does not describe ministerial approvals. Per the Ordinance’s plain language, every approval of a commercial cannabis operation will necessarily be a discretionary action and thus subject to CEQA. By

adopting an ordinance that purports to authorize “ministerial” approvals which in actuality trigger CEQA, the County is heading toward certain litigation from those objecting to future siting decisions for commercial cannabis operations, and from applicants for these projects.

“A project is discretionary when an agency is required to exercise judgment or deliberation in deciding whether to approve an activity. It is distinguished from a ministerial project, for which the agency merely determines whether applicable statutes, ordinances, regulations, or other fixed standards have been satisfied. Ministerial projects are those for which the law requires [an] agency to act ... in a set way without allowing the agency to use its own judgment They involve little or no personal judgment by the public official as to the wisdom or manner of carrying out the project. The public official merely applies the law to the facts as presented but uses no special discretion or judgment in reaching a decision.” *Protecting Our Water & Env’t Res. v. Cty. of Stanislaus* (2020) 10 Cal.5th 479, 489 (“*POWER*”) (internal quotations and citations omitted).

Under the proposed Ordinance, the Agriculture Commissioner *must* use his judgment to decide whether to issue permits. Thus, this is different from the situation in *Sierra Club v. County of Sonoma* (2017) 11 Cal.App.5th 11, where the court held that the permit in question did not involve the Commissioner’s judgment, even though the County’s ordinance might allow for discretion in other instances. *Sierra Club* therefore does not apply here. Instead, a court would hold that the County has improperly classified *all* commercial cannabis permit approvals under the ordinance as ministerial, when in fact the ordinance requires the Commissioner to exercise discretion for each permit. *POWER*, 10 Cal.5th at 499 (“County’s blanket classification ... enable[d] County to approve some discretionary projects while shielding them from CEQA review”).

The Ordinance in many instances requires plans or surveys by qualified professionals to assess impacts, but does not provide standards governing *how* these surveys/plans will be evaluated or deemed sufficient. Thus, County officials will have to exercise discretion to determine whether they are good enough.

For example, every permit application must include a “biotic resource assessment” that “demonstrates” to the Commissioner’s satisfaction that the project would not impact sensitive or special status species habitat. Proposed § 38.12.070(A)(1). Whether this plan adequately demonstrates the avoidance of impacts—including whether surveys were properly conducted to determine the presence of sensitive or special status species habitat, and what constitutes an “impact”—is necessarily left to the Commissioner’s individual discretion, a task for which he typically lacks expertise.

Similarly, each permit application must include a wastewater management plan that, among other things, “demonstrates” to the Commissioner’s satisfaction that the project would have adequate capacity to handle domestic wastewater discharge from employees. Proposed § 38.12.130(A)(5). Each application must also include a storm water management plan and an erosion and sediment control plan that “ensure,” again to the Commissioner’s satisfaction, that runoff containing sediment or other waste or byproducts does not drain to the storm drain system, waterways or adjacent lands. Proposed § 38.12.130(B). Obviously, whether an applicant’s plans sufficiently “demonstrate” the necessary wastewater capacity, or “ensure” that runoff would not drain to waterways, would require the Commissioner’s individual judgment. Proposed sections 38.12.070(A)(1), 38.12.130(A)(5) and 38.12.130(B) apply to *all* applications regardless of size or proposed location. Each applicant must submit an energy conservation plan to reduce energy use below the threshold of significance. § 38.12.110. The Commissioner must exercise his personal judgment as to whether the plan is adequate. Thus the Commissioner will have to exercise his discretion for every permit application they process.

Other provisions that require the exercise of discretion to approve or deny a permit include, but are not limited to, proposed sections 38.12.050(B) (historic resource survey), 38.12.050(C) (cultural resource survey), 38.12.130 (wastewater management plan), and 38.12.140 (documentation of water supply).

Furthermore, unlike in *Sierra Club*, here the Commissioner’s necessary exercise of discretion under the Ordinance would be directly tied to the mitigation of impacts from individual projects. For instance, the SMND states that “future cannabis projects facilitated by a ministerial permit . . . could result in direct and indirect impacts on sensitive biological resources including sensitive-status species. . . However, to *reduce impacts* to status species and their habitat,” applicants would be required to submit the “biotic resource assessment.” SMND at 39. As explained above, the Commissioner would have authority to decide whether this assessment adequately demonstrates that no impact would occur—in other words, whether the impact is effectively mitigated.

The Commissioner or County staff would also have discretion to determine the adequacy of the applicant’s VMT analysis demonstrating whether a proposed project would add fewer than 110 average daily vehicle trips. SMND at 89, 90. Staff shall “verify[]” that a project complies with applicable County or recommended State thresholds related to VMT and that, “if necessary, [the project] incorporates appropriate VMT-reducing measures consistent with the requirements in Mitigation Measure TRANS-1.” *Id.* at 90. With implementation of Mitigation Measure TRANS-1, “[t]his impact would be less than significant with mitigation incorporated.” *Id.* at 89. Yet, clearly, staff would need to exercise discretion to “verify” whether the applicant’s VMT

analysis is adequate and whether a project “incorporates VMT-reducing measures.” *Id.* at 90.

CEQA, and not the personal judgment of County staff, governs the discretionary review of projects, including mitigation of impacts. *See Sierra Club*, 11 Cal.App.5th at 22 (ministerial approval process “is one of determining conformity with applicable ordinances and regulations, and the official has no ability to exercise discretion to mitigate environmental impacts”). Here, however, the Commissioner and/or staff would have the authority to deny a proposed project which in their judgment would not avoid biological, vehicle miles traveled, or other environmental impacts. *Id.* at 23 (if agency can deny, or modify, project proposal in ways that would mitigate environmental problems that CEQA compliance might conceivably have identified, then the process is discretionary). Thus, the proposed Ordinance contemplates a discretionary, and not ministerial, approval process.

If adopted, the Ordinance’s permit approval regime would be in clear violation of CEQA, and each permit approval would risk a legal challenge and ultimately being overturned by a court. The County must revise the Ordinance and accompanying environmental document to acknowledge that all subsequent permit approvals will necessarily be discretionary decisions subject to review under CEQA.

V. The SMND’s analyses of and mitigation for the Project’s environmental impacts are legally inadequate.

The evaluation of a proposed project’s environmental impacts is the core purpose of an EIR. *See* CEQA Guidelines § 15126.2(a) (“An EIR shall identify and focus on the significant environmental effects of the proposed project”). As explained below, the SMND fails to analyze the Project’s numerous environmental impacts, including those affecting land use, transportation and circulation, air quality, biological resources, odor, climate change, public health and safety, and noise. In addition, as discussed above, the SMND never considers the full impacts of the Project—the impacts of the foreseeable impacts of facilitating ministerial approval of cannabis cultivation and production and of events that the proposed Project would allow. In this way, the SMND fails to disclose the extent and severity of the Project’s broad-ranging impacts. This approach violates CEQA’s requirement that environmental review encompass all of the activity allowed by the proposed Project. The County must analyze all of the aggregated impacts of all of the foreseeable development and activities. Without this analysis, the environmental review will remain incomplete and the Project cannot lawfully be approved.

Below, we discuss several examples of impact areas with particular deficiencies. To ensure that both decision makers and the public have adequate information to consider

the effects of the proposed Project, and to comply with CEQA's requirements, the County must prepare an EIR that properly describes the Project, analyzes its impacts, and considers meaningful mitigation measures that would help ameliorate those impacts.

The SMND claims that it is a "programmatic" document and therefore detailed analysis is not within its scope. SMND at 36. Even if it were a programmatic analysis, however, the 'programmatic' nature of this SMND is no excuse for its lack of detailed analysis. CEQA requires that a program EIR provide an in-depth analysis of a large project, looking at effects "as specifically and comprehensively as possible." CEQA Guidelines § 15168(a), (c)(5). Because it looks at the big picture, a program level analysis must provide "more exhaustive consideration" of effects and alternatives than an EIR for an individual action, and must consider "cumulative impacts that might be slighted by a case-by-case analysis." CEQA Guidelines § 15168(b)(1)-(2).

Further, it is only at this early stage that the County can design wide-ranging measures to mitigate County-wide environmental impacts. *See* CEQA Guidelines § 15168(b)(4) (programmatic EIR "[a]llows the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility. . . ."). A "program" or "first tier" EIR is expressly not a device to be used for deferring the analysis of significant environmental impacts. *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 199. It is instead an opportunity to analyze impacts common to a series of smaller projects, in order to avoid repetitious analyses. Thus, it is particularly important that the environmental analysis for this Project analyze the overall impacts for the complete level of development it is authorizing now, rather than when individual specific projects are proposed at a later time.

Deferring analysis to a later stage is unlawful as it leaves the public with no real idea as to the severity and extent of environmental impacts. Where, as here, the environmental review document fails to fully and accurately inform decisionmakers and the public of the environmental consequences of proposed actions, it does not satisfy the basic goals of CEQA and its Guidelines. *See* Pub. Resources Code § 21061 ("The purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment"). The evaluation of a proposed project's environmental impacts is the core purpose of an EIR. *See* Guidelines § 15126.2(a) ("An EIR shall identify and focus on the significant effects of the proposed project on the environment."). It is well-established that the County cannot defer its assessment of important environmental impacts until after the project is approved. *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 306-07.

The SMND fails to provide the legally required analysis of the extensive growth in cannabis cultivation (from about 50 acres currently to as many as 65,753 acres, a 1,300 fold increase) and operations that the Project allows and promotes. Thus, the County must revise the environmental analysis to accurately disclose the impacts of the maximum amount of cannabis cultivation allowed by the Project. Detailed below are the specific legal inadequacies of the SMND's various impact sections.

A. The SMND fails to adequately analyze and mitigate the Project's air quality and odor emissions

The SMND's analysis of Project-related air quality and odor impacts contains numerous deficiencies that must be remedied in order for the public and decision-makers to fully understand the Project's impacts. Specifically, the evaluation of the Project's air quality impacts must be revised to address: (1) failure to adequately analyze Project operation pollutants; (2) failure to adequately analyze odor emissions; (3) deficient analysis of project-related public health impacts; (4) and failure to identify all feasible mitigation measures for significant impacts. These issues, and other deficiencies, are discussed in greater detail below.

1. The SMND fails to adequately analyze and mitigate the Project's potential to create objectionable odors.

New and expanded cannabis cultivation and production sites facilitated by the proposed Project have the potential to generate significant odors impacting nearby sensitive receptors. As the California Air Resources Board Air Quality makes clear "the types of facilities that can cause odor complaints are varied and can range from small commercial facilities to large industrial facilities...". California Environmental Protection Agency and California Air Resources Board Air Quality and Land Use Handbook: A Community Health Perspective, 2005 at 32 and 33; excerpts attached as Exhibit 19. Odors can cause health symptoms ranging from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). *Id.* and BAAQMD CEQA Guidelines at 7-1; excerpts attached as Exhibit 20. As discussed in detail below, the SMND for the Project fails to take seriously the significant odor impacts resulting from cannabis cultivation and processing sites.

a. The SMND fails to follow applicable guidance on methods to evaluate the significance of odor impacts.

The BAAQMD CEQA Guidelines provide guidance for lead agencies evaluating odor impacts. The BAAQMD CEQA Guidelines also provide odor screening distances recommended by agency for a variety of land uses. The guidance specifies that "Projects

that would site a new odor source or a new receptor farther than the applicable screening distance shown in Table 3-3 from an existing receptor or odor source, respectively, would not likely result in a significant odor impact.”

The BAAQMD CEQA Guidelines also recommend a multi-step process to comprehensively analyze the potential for an odor impact. These include:

- **Disclosure of Odor Parameters:** this includes information on the type and frequency of the odors, the distance and landscape between the odor sources and sensitive receptors, predominant wind direction and speed, and whether the sensitive receptors would be upwind or downwind from the odor sources. BAAQMD CEQA Guidelines at 7-2.
- **Odor Screening Distances:** The BAAQMD CEQA Guidelines provide odor screening distances for a variety of land uses. The guidance specifies that Projects that would locate sensitive receptor(s) to odor source(s) closer than the screening distances would be considered to result in a potential significant impact. *Id.* The Guidelines list a variety of land uses known to cause odors. Although cannabis cultivation sites are not specifically included, the list includes such uses as composting facilities, food processing facilities, and green waste and recycling operations. We note that all of the screening distances cited by the BAAQMD range from one to two miles. BAAQMD CEQA Guidelines at 3-4.
- **Odor Complaint History:** the impact of an existing odor source on surrounding sensitive receptors should also be evaluated by identifying the number of confirmed complaints received for that specific odor source. The Air District recommends that lead agencies take all odor complaints (including ones made to BAAQMD) and evaluate the distance from source to receptor. It also recommends using odor complaints from surrogate odor sources to evaluate if the new source would result in significant odor impacts. BAAQMD CEQA Guidelines at 7-3.
- **Significance Determination:** lastly, the lead agency should use the information obtained from the steps above to reach a conclusion regarding the significance of the odor impact. *Id.* If an agency concludes there is the potential for significant odor impacts, “BAAQMD considers appropriate land use planning the primary method to mitigate odors.” *Id.* The agency recommends that “providing sufficient buffer zones between sensitive

receptors and odor sources should also be considered prior to analyzing implementation of odor mitigation technology.” *Id.*

Here, as discussed below, the SMND pays short shrift to this important issue and entirely fails to apply these established methods of evaluating odor impacts.

b. The SMND presents incomplete and inaccurate analysis of the Project’s anticipated odor impacts.

The SMND acknowledges that “[O]dors from cannabis cultivation sites have been described as reminiscent of skunks, rotting lemons, and sulfur...” SMND at 33. The SMND also discloses that “[P]revailing winds carry cannabis odors to downwind residences” and “potentially generate odors that adversely affect a substantial number of people.” SMND at 34. However, the SMND’s cursory discussion omits any actual analysis of how sources of odorous emissions caused by implementation of the Project would impact sensitive receptors.

Odors from cannabis cultivation sites result from both indoor and outdoor cultivation areas and include odors from manure fertilizer. The molecules that cause most of the foul odors from cannabis cultivation are aromatic volatile organic compounds called terpenes. While the SMND claims that odors are worst during harvesting in the months of September and October, residents living near existing cannabis cultivation sites report experiencing pungent odors from June through November if there is a single harvest, but many cultivators have two or three harvests. (Personal Communication, C. Borg, Urban Planner and members of Save Our Sonoma Neighborhoods, March 8, 2021.) Contradicting the claims by the County that odor is only a 2-month a year problem, a group of neighbors on Abode Road, Petaluma, filed suit in August 2018 after a “strong skunky smell of cannabis cloaked the neighborhood” since spring, causing “significant breathing problems” for a young paraplegic who relies on a breathing tube and was at risk of suffocation. *See* Johnson, Neighbors file federal lawsuit to shut down Sonoma County cannabis grower, Press Democrat August 31, 2018), Exhibit 21; Letter from Stefan and Carol Bokaie, Exhibit 22.

Aside from misrepresenting the extent and duration of odor impacts on nearby sensitive receptors, the SMND fails to provide *any* information on current odor impacts and current odor control systems that may be in place at existing facilities. Such information would inform the public and decisionmakers about anticipated impacts and the efficacy of odor control systems. Notwithstanding the failure of the SMND to provide this rudimentary information about odor sources and odor control systems at existing sites, the SMND is silent with regard to the County’s historical record of odor complaints. Had the County undertaken this analysis, it would likely have concluded that

the current setbacks have proven to be grossly ineffective, with many area residents suffering from offensive odors as a result of cannabis cultivation operations. County residents indicate that the smell from the such sites can be overwhelming. Individuals also state that they have called the County and the BAAQMD on multiple occasions. It is important to point out that the BAAQMD typically responds to these callers with a perfunctory explanation, stating that nothing can be done since the facility has a permit to operate. Similarly, calls to the County have generally not yielded any change in ameliorating odors despite the fact that the County Code currently considers odor from cannabis a nuisance. *See*, County Code § 26-88-250 (f) (Health and Safety. Medical cannabis uses shall not create a public nuisance or adversely affect the health or safety of the nearby residents or businesses by creating dust, light, glare, heat, noise, noxious gasses, odor, smoke, traffic, vibration, unsafe conditions or other impacts, or be hazardous due to the use or storage of materials, processes, products, runoff or wastes.) Testimonies from residents filing complaints constitute substantial evidence to support a fair argument that the proposed Project may have result in a significant odor impact. In *Oro Fino Gold Mining Co. v. County of El Dorado* (1990) 225 Cal.App.3d 872,882, (the Court held that personal observations about a previous project constitutes substantial evidence of a potentially significant impact of a new project). *See also Keep Our Mountains Quiet v. County of Santa Clara* (2015) 236 Cal.App.4th 714, 735–736 & fn. 13, 187 Cal.Rptr.3d 96 (“Residents’ personal observations of traffic conditions where they live and commute may constitute substantial evidence even if they contradict the conclusions of a professional traffic study.”); *Protect Niles v. City of Fremont* (2018) 25 Cal.App.5th 1129, 1152; example letters from Sonoma County residents regarding odor impacts from commercial cannabis cultivation sites, attached as Exhibit 22, (including a letter from Katie Moore regarding odor from a 1-acre outdoor grow in Fulton that presents constant, noxious smells during the growing season at a home 2,000 downwind. When Ms. Moore complained to the county, one official said “this is here to stay. If you don’t like it, then move.” *Id.*)

Concerning indoor cultivation operations, the SMND foregoes any analysis of these facilities and defers analysis for outdoor cultivation operations to the future requiring a case-by-case review of these facilities if warranted based on the number of complaints. SMND at 35. CEQA requires that impacts be evaluated now, prior to Project approval, not deferred until some later date if complaints are sufficient to trigger an investigation.

By contrast, Yolo County prepared an EIR for its Cannabis Land Use Ordinance. *See*, <https://www.yolocounty.org/government/general-government-departments/community-services/cannabis/cannabis-land-use-ordinance> accessed March 1, 2021; excerpted Air Quality and Odor chapter attached as Exhibit 23. The Yolo

County EIR evaluated odor impacts from existing and eligible cannabis cultivation sites and included air dispersion models that simulated atmospheric conditions, such as meteorology and topographical influences to quantify the impact of odors. See also memo from Trinity Consultants to Yolo County, dated August 17, 2020, attached as Exhibit 24. Given that the Project fails to limit the number of cannabis cultivation permits approved by the County, an EIR must evaluate the effects of the whole of the Project, that is, the approval of potentially thousands of outdoor and indoor cultivation sites for up to 65,753 acres of cannabis cultivation. In addition, the County has an obligation to identify effective mitigation as part of this review to ensure that sensitive receptors in the vicinity of cannabis cultivation operations are not significantly impacted by odors.

c. The SMND relies on inadequate mitigation measures that do not reduce odor impacts to less than significant levels.

Instead of providing a thorough analysis of the Project's anticipated odor impacts, the SMND once again relies on unproven mitigation measures to conclude that odor impacts will be reduced to less than significant levels. For example, for indoor cultivation facilities, the Code amendments include a standard that permanent structures that may cultivate or contain cannabis must be equipped with odor control filtration and ventilations systems to control odors. SMND at 33. The standard also states that "odor shall be controlled in a way that prevents cannabis odor from being detected off of the parcel containing the cannabis site." SMND at 33; proposed § 38.12.110. B. The SMND identifies Mitigation Measure AIR-2, which requires daily inspections to verify that air filtration equipment continues to function properly at indoor cultivation sites. However, the SMND fails to provide evidence that the proposed measures will effectively reduce odor impacts to less than significant levels in part because the Project includes no effective means of ensuring that cannabis odor is not detected on adjacent parcels.

With regard to outdoor cannabis cultivation operations, the SMND points to several factors it claims would reduce the exposure of sensitive receptors to odors from outdoor grows. First, the SMND states that "outdoor cannabis cultivation generates the strongest odors in September and October, during the last four to eight weeks of the growing season prior to harvest. This would restrict the timing of the most adverse cannabis odors to no more than two months per year." SMND at 34. While outdoor cultivation may be a single crop per year, hoop houses, which are not controlled for odor, can have three harvests. Thus, the period that odor is problematic can be much longer than the SMND asserts. Real life experience demonstrates the period is much longer than the SMND's estimate. Pungent odors clearly can be a problem throughout the growing season. Even if the cannabis odors were most pungent for only 8 weeks during the year, neighboring property owners would be unable to open their windows or enjoy their homes and backyards during the months of September and October. See Fuller, 'Dead

Skunk' Stench from Marijuana Farms Outrages Californians, New York Times, December 22, 2018 attached as Exhibit 3. But in fact, odors adversely impact neighbors for the entire cannabis growing period, including in summer when children are not at school and people tend to spend more time outdoors.

Second, the SMND states that residents in agricultural and resource zones would have limited exposure due to large parcel sizes. SMND at 34. However, many DA, RR, AR and RRD parcels are in non-conforming areas. For example, the cannabis business at 885 Montgomery Road in Sebastopol, is on a 10-acre DA zoned parcel but is surrounded by seven, small, DA and AR/RR zoned parcels with a 3.3-acre average size. See map in Guthrie Letter, Cannabis cultivation should occur in appropriate places, at 13, Exhibit 22. There are many examples of similar non-conforming parcels in the County. An EIR should include a review of existing and eligible cannabis cultivation parcels and analyze how they may impact neighboring residents.

Third, the SMND claims that vegetative screening would buffer sensitive receptors from cannabis odors. *Id.* The SMND appears to base its statement on the United States Department of Agriculture Natural Resource Conservation Service ("NRCS") Publication October 2007- Windbreak Plant Species for Odor Management around Poultry Production Facilities, attached as Exhibit 25. However, while vegetative buffers may be partially effective⁹ for reducing poultry and livestock odors (ammonia and hydrogen sulfide), plants are not known to absorb the terpene odor molecules emitted by cannabis. [Personal Communication: C. Borg, Urban Planner, SMW with Dr Deborah Eppstein, Retired Ph.D. in biochemistry, March 10, 2021. In addition, ammonia (NH₃) and hydrogen sulfide (H₂S) are much more volatile than terpenes [ammonia evaporates at -28 degrees Fahrenheit, hydrogen sulfide evaporates at -140 degrees Fahrenheit.] *Id.* The most volatile cannabis terpenes evaporate at +70 degrees Fahrenheit. *Id.* The density of ammonia (0.00089 g/ml) is 1,000 times less than for cannabis terpenes (0.858 g/ml for B-pinene).] *Id.* Thus, the more highly volatile ammonia molecules can disperse much more readily than the heavier terpene molecules. *Id.*

Furthermore, even if planting vegetation were an effective windbreak on flat ground, 20 years growth may be needed, with limited results starting after 5 years. *See*, NRCS Publication October 2007- Windbreak Plant Species for Odor Management around Poultry Production Facilities attached as Exhibit 25. Many cultivation sites in Sonoma

⁹ The observed reduction in odor was only 46 percent. NRCS March 2007, p. 2. The reduction probably occurred because "[p]lants have the ability to absorb aerial ammonia." *Id.*

County are located on hillsides facing sensitive receptors where prevailing winds can widely distribute terpene odors.

The SMND fails to evaluate the efficacy of vegetative buffers on cannabis odors and fails to take hillside locations into account. Vegetative buffers do not disperse cannabis terpene odors and prevent them from adversely affecting adjacent parcels. This has been demonstrated by Ortech, a cannabis consulting company with 40 years of odor management experience. It found that “uncontrolled cannabis odors can disperse as far as 1,000 m (3,280 feet or more than 0.6 mile) from outdoor (cannabis) farms and more than 300 m (984 feet) from indoor grow facilities.” Ortech brochure at 2, attached as Exhibit 26. This finding is confirmed through residents’ experiences in recent years, where vegetative screening and thick tree cover does not prevent strong odors from cultivation areas of between 10,000 square feet and one acre from travelling over 600 feet without wind. Prevailing winds extend the odor even further. In another example, the odors from a one-acre cultivation site in Fulton adversely affects people 2,000 feet downwind all summer and fall. *See*, Exhibit 22 at Moore letter; *see also*, “What’s it Like to Live 100 feet from 15, 000 Cannabis Plants” North Bay Biz, December 4, 2020, attached as Exhibit 27. These problems would be exacerbated by outdoor cultivations of up to 10 acres.

The SMND acknowledges that the aforementioned factors do not mitigate odor impacts from outdoor cannabis cultivation operations and identifies Mitigation Measure AIR-3, which provides:

“In the case that odors are not adequately diffused and verified odor complaints are received, Mitigation Measure AIR-3 would be required to address odor problems on a case-by-case basis. Where the County finds that a cannabis operation is having a substantial adverse effect on sensitive receptors, the County would review additional measures to reduce outdoor odor generation, including use of engineered solutions such as Vapor-Phase Systems (Fog Systems). Fog systems mix water with an odor-neutralizing chemical, which remains in the air after the water evaporates. With implementation of Mitigation Measure AIR-3, the impact of cannabis odors would be reduced to a less than significant level.”

The SMND fails to explain that vapor phase systems (Fog) are exclusively used for indoor grows. There is no experience for large outdoor grows. The effects of long-term human inhalation of the chemicals in the fog mist and related technologies has not been studied, including potential health problems for pregnant women, babies, children, the elderly, and the acute or chronically ill. It is unlikely that federal or state health authorities would allow its use without much more information.

The SMND then concludes that impacts relating to odorous emissions from outdoor operations would be less than significant with implementation of Mitigation Measure AIR-3. *Id.* However, the SMND itself provides evidence that impacts would be potentially significant when it provides for Permit Sonoma staff to “refer the matter to the Board of Zoning Adjustments for review of additional measures to reduce outdoor odor generation, including use of engineered solutions such as Vapor-Phase Systems (Fog Systems).” *Id.*

In sum, as discussed above, allowing ministerial permits for cannabis cultivation and production is likely to encourage a substantial increase in these facilities. As the SMND admits, cannabis facilities produce strong odors that impact nearby residents and other sensitive receptors, especially where prevailing winds carry cannabis odors downwind. SMND at 34. Sensitive land uses must be protected from these incompatible uses.

The Project, as currently proposed, lacks effective measures to minimize odor-related land use conflicts. A revised environmental analysis in the form of an EIR must assume that the County will have cannabis applications to the greatest degree allowable; that is that all (or at least most) of existing and eligible cannabis cultivation sites will apply for permits. The document must then be revised to include a comprehensive assessment of odors caused by the proposed Project. The analysis should comply with BAAQMD guidance for conducting such analysis as discussed above. Should the analysis determine that the Project’s odor impacts are significant, the EIR must identify feasible mitigation measures to avoid and minimize impacts on sensitive receptors. These measures should include overall limits on permit approvals, exclusion zones in the County’s sensitive resource areas, and robust setbacks as the primary mitigation to avoid significant odor as well as other impacts. In addition, the EIR should identify additional measures, such as testing with appropriate equipment (*e.g.*, use of field olfactometers; *see* The Nasal Ranger: A Hobbyist Weed Farm’s Worst Enemy, attached as Exhibit 28) and engineered solutions as a last resort should odor impacts persist. The only effective mitigation for odor from outdoor grows is distance. At a minimum, because sensitive receptors are known to reside in residences (SMND at 32), the same minimum 1,000-foot setback from sensitive receptors in schools should be applied to residential property lines. Depending upon size of grow and other conditions, in many situations it should be further. *See* Guthrie, Cannabis cultivation should occur in appropriate places, Exhibit 22.

2. The SMND fails to adequately analyze and mitigate the Project’s air quality impacts.

The Project is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) and the area is currently designated as a nonattainment area for state

and federal ozone standards, the state standard for large particulate matter (PM₁₀), and the state and federal standard for fine particulate matter (PM_{2.5}). SMND at 29. Emissions from cannabis cultivation and production operations include ozone precursors, such as nitrogen oxides (NO_x), a substance known to be harmful to people and the environment, and volatile organic compounds (“VOCs”). Ozone is a criteria pollutant under the Clean Air Act, and the BAAQMD is the delegated enforcement agency for the area. Emissions from cannabis cultivation and production operations will contribute to worsening the county's air pollution, which already violates state and federal standards. SMND at 29.

The SMND’s discussion of the Project’s potential to emit criteria pollutants, such as NO_x, is cursory and lacks evidentiary support. While the SMND acknowledges that the Project would generate emissions of particulates and ozone precursors (*i.e.*, NO_x), it concludes that “because cannabis cultivation is not an intensive urban land use, it is anticipated that the long-term operation of cannabis cultivation sites would not generate emissions exceeding BAAQMD thresholds.” *Id.* at 29 and 30. Based on this rationale, the SMND that the proposed Project would not result in significant Project and cumulative air quality impacts. *Id.* However, the document reaches this conclusion without completing the analysis of the Project’s air quality impacts. The SMND fails to calculate NO_x emissions and dismisses this potential impact without analysis of any sort and in contradiction to other statements in the document that conclude such exceedance of significance thresholds is possible. SMND at 29 and at Section IV. Summary of Environmental Issues at 15 respectively; staff report to the Planning Commission meeting on March 18, 2021[“...it is possible that cannabis operations would generate NO_x emissions exceeding the BAAQMD’s significance threshold of an average of 52 pounds per day during construction or operation, contributing to regional ozone pollution.”]

In fact, cannabis cultivation and production operations emit NO_x through use of equipment for cultivation and extraction. Cannabis cultivation and processing also emits VOCs, such as terpenes and butane. Personal communication: C. Borg, Urban Planner and D. Eppstein; also *see e.g.*, <https://airqualitynews.com/2019/09/19/cannabis-farms-in-the-us-could-be-causing-chronic-air-pollution/> accessed on 3-12-21 and attached as Exhibit 29 ; <https://www.sciencedaily.com/releases/2019/09/190918100230.htm> accessed on 3-12-21 and attached as Exhibit 30; and <https://science.sciencemag.org/content/363/6425/329.summary> accessed on 3-12-21 and attached as Exhibit 31. Studies indicate that cannabis grows contribute substantially to air pollution. *Id.* The SMND fails to quantify the anticipated emissions from ministerial approval of cannabis permits and fails properly evaluate the resulting air impacts. It is well-established that the County cannot defer its assessment of important environmental impacts until after the project is approved. *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 306-07.

Having failed to conduct an adequate analysis of the Project's impacts, the SMND presents Mitigation Measure AIR-1. However, Mitigation Measure AIR-1 exclusively addresses particulate matter or dust. (Mitigation Measure AIR-2 and AIR-3 address odor impacts; *see* comments in section D.2 below.) Thus, the SMND fails to analyze and mitigate the Project's NO_x and VOC emissions and the impacts that would result from both. The SMND also fails to adequately analyze the air quality and health and safety impacts associated with significant odor impacts and with the increased fire risk caused by the Project. *See* section D.2 below for additional information on potential health impacts related to odor emissions.

In addition, the SMND fails to evaluate the potential health risks from Project-related increases in fire risk. Fires produce high-risk contaminants, including trace metals, polycyclic aromatic hydrocarbons (PAHs), benzene, carbon monoxide (CO), nitrogen and sulfur oxides, cyanide, volatile organic compounds (VOCs), airborne acids, and particulates. *See* Exhibit 32 (Rahn, M., N. Bryner, R. Swan, C. Brown, T. Edwards, and G. Broyles, Smoke Exposure and Firefighter Risk in the Wildland Urban Interface (2016) FEMA-FP&S Grant, 2013), attached hereto. The increase in fires will deteriorate air quality. Smoke is made up of a complex mixture of gases and fine particles produced when wood and other organic materials burn. The greatest health threat from smoke is from fine particles (PM_{2.5}), which are microscopic particles that can penetrate the lungs and cause a range of health problems, from burning eyes and a runny nose to aggravated chronic heart and lung diseases, and even premature death. Exhibit 33 (Airnow, How Smoke from Fires Can Affect Your Health (2018), <https://www.airnow.gov/air-quality-and-health/how-smoke-from-fires-can-affect-your-health/>, accessed on March 8, 2021), attached hereto. People with heart or lung diseases, the elderly, children, and pregnant women are especially vulnerable to the effects of PM_{2.5}. *Id.*

B. The SMND fails to adequately analyze and mitigate the Project's impacts on groundwater supply.

CEQA requires that an EIR present decision makers "with sufficient facts to evaluate the pros and cons of supplying the amount of water that the [project] will need." *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 40 Cal.4th 412, 430-31 (2007). This includes identifying and analyzing water supplies that "bear a likelihood of actually proving available; speculative sources and unrealistic allocations ('paper water') are insufficient bases for decision making under CEQA." *Id.* at 432. The fact that an agency has identified a likely source of water for the Project does not end the inquiry.

The ultimate question under CEQA . . . is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts

of supplying water to the project. If the uncertainties inherent in long-term land use and water planning make it impossible to confidently identify the future water sources, an EIR may satisfy CEQA if it acknowledges the degree of uncertainty involved, discusses the reasonably foreseeable alternatives—including alternative water sources and the option of curtailing the development if sufficient water is not available for later phases—and discloses the significant foreseeable environmental effects of each alternative, as well as mitigation measures to minimize each adverse impact. *Id.* at 434. This analysis is crucial in light of the drought that has gripped this State for the past several years. This SMND's analysis of impacts to water supply fails to meet CEQA's standards.

As described in section III above, the SMND's failure to consider the impacts of the whole of the project undermines the document's analysis of Project-related impacts, including those impacts related to water supply. The letter prepared by Greg Kamman provides detailed comments on the shortcomings of the SMND's water supply impacts analysis. We incorporate the Kamman Report into these comments. Some of the SMND's most troubling errors identified in the Kamman Report are described below.

The SMND presents unsubstantiated figures on estimated water use by cannabis cultivation and production facilities. The SMND estimates that water use by each cultivator would be less than 2.0 acre-feet of water per year. SMND at 69. However, the SMND fails to disclose how this estimate is derived and seems not to have considered the greatly increased water demand by hoop houses that harvest two to three crops per year. As the Kamman Report explains, the increased demand on the County's already stressed groundwater supplies is a well-documented concern, yet the SMND fails to adequately analyze the impacts of the Project on this limited resource. Kamman Report at 2-4.

Nor does the SMND adequately analyze the impacts of groundwater pumping on creeks, streams, and rivers. Kamman Report at 3-4. Moreover, the methods the County has devised to address potential impacts to surface waters from groundwater pumping do not mitigate potentially significant impacts. *Id.* The 500-foot setback for wells from waterways in Zones 1 and 2 appears to be arbitrary. Similarly, the SMND fails to provide evidence that required well-yield tests for applications in Zone 3 and 4 will prevent impacts to groundwater supplies. *Id.* As the Kamman Report explains, the well-yield test evaluates if the minimum yield will meet irrigation demands, but it does not evaluate if pumping would adversely impact surface water and groundwater resources.

In sum, the SMND fails to adequately evaluate the Project's impacts of groundwater use on the County's groundwater and surface water resources. An EIR for the Project must correct the aforementioned gaps in analysis. In addition, the EIR must evaluate related Project-related impacts associated with water quality and aquatic habitat

and biotic resources reliant on that habitat. *See*, Kamman Report at 5-10 and Letter from Friends of Mark West Watershed to Planning Commissioners dated March 18, 2021.

C. The SMND fails to adequately analyze and mitigate the Project's aesthetic impacts.

Sonoma County draws tourists largely based on its rural character, bucolic countryside vistas, and small-town charm. The County proposes allowing up to 65,733 acres of new outdoor cannabis cultivation, together with at least 8,289 acres of greenhouses.¹⁰ Currently about 50 acres of cannabis are being cultivated, so the Project would allow a 1,300-fold increase in the number of cannabis facilities.

The SMND concedes the Project would affect “parcels within scenic vistas.” SMND at 19. However, the SMND fails to provide any analysis of the actual impacts. The SMND includes no simulations of views from public viewpoints (such as trails and roadways) of existing and eligible cannabis cultivation sites that may apply for a cannabis cultivation permit. By contrast, the EIR for the Yolo County Cannabis Land Use Ordinance considered views of existing and eligible cannabis cultivation sites from various scenic roadways and public viewpoints and evaluated the impacts of three different alternatives allowing various levels of development. *See*, Yolo County Land Use Ordinance, Draft EIR at 3-1.1 to 3-1.48; excerpts attached as Exhibit 23. Here, the SMND provides no such analysis, and assumes that setbacks and screening alone will be adequate to reduce impacts. However, as discussed further below, the SMND provides no evidence that the mitigation measures will be effective.

Ministerial permits would allow industrial-scale developments without public involvement or consideration of how each project affects the overall landscape. County staff's 2015 Discussion Paper opined on the need to limit indoor cannabis cultivation “because indoor facilities are more industrial in nature...and may not be in keeping visually with the rural character of these lands.” *See* Exhibit 14, Discussion Paper at 4. For this reason, among others, staff recommended that “[A]ll larger sized operations would be required to obtain a conditional use permit, allowing close review of the site on a case by case basis.” *Id.* at 5. But here, the proposed Project would conflict with County staff's own recommendations and the SMND fails to adequately study and analyze the impacts of the proposal on aesthetics.

¹⁰ One acre of new structures for indoor cultivation on parcels 10-20 acres is allowed, and more on larger parcels. Proposed § 38.12.030 (B). The county's ArcGIS data indicates 8,289 parcels meet these criteria: RRD (4,015); LIA (1,158); LEA (1,158); DA (1,665).

The SMND proposes setbacks, screening, and design review to lessen adverse visual effects from cannabis structures. But screening applies only to fences and outdoor canopy, not for hoop houses, greenhouses, or indoor grow facilities. Although they are required to be fenced, the fences will not screen them from view. Setbacks for hoop houses are only 100 feet from a property line of a neighboring residence, and setbacks for greenhouses are as little as 10 feet. SMND at 19; proposed § 38.12.010. The SMND concludes that setbacks reduce impacts to a less than significant level, however the SMND provides no evidence to support this conclusion. SMND at 20-24.

Implementing the Project to allow cannabis cultivation and production on lands designated for traditional agriculture and resource protection will result in significant impacts to scenic views and vistas and changes to the visual character. As described throughout this letter, cannabis cultivation and production differs from traditional agriculture and is more similar to an industrial process. Outdoor cultivation is frequently placed within hoop houses that appear like plastic greenhouses and can add light and glare impacts. *See* photo of hoop houses, attached as Exhibit 34. Indoor facilities look much like multi-story warehouses or self-storage units. *See* photos of indoor facilities, attached as Exhibit 35. Such facilities would appear out of scale with surrounding community features or unsightly if located in rural environments. These facilities would indisputably have significant visual impacts and degrade the existing visual character of rural communities.

An EIR must include a detailed and thorough analysis of the project's likely aesthetic impacts, as outlined above. It must provide an adequate analysis that would permit informed decisions about the project, effective mitigation measures, and alternatives that could have less intensive impacts. The EIR must also analyze all project components that could impact views. The accepted approach to analyzing visual and aesthetic impacts is to: characterize the existing setting of the area affected by the Project; describe the changes that would result given the proposed changes to the Code; provide photomontages or visual simulations to illustrate examples of the change in character of the affected area before and after project implementation; and identify feasible mitigation measures and alternatives to reduce or eliminate significant impacts. To comply with CEQA, the County must include such an analysis in an EIR for the Project.

D. The SMND fails to analyze all potential direct and indirect impacts, including wildfire safety and emergency access/evacuation.

The SMND includes a description of recent wildfire history in Sonoma County. It describes fires in 2017 and 2019 that burned more than 188,000 acres and destroyed more than 5,600 homes in Sonoma and Napa counties. In 2020, the LNU Lighting Complex fire brought more destruction and devastation to the area. The SMND goes on to state

that “extreme wildfire events are anticipated to occur 20 percent more often by 2050 and 50 percent more often by the end of the century.” SMND at 98. Given these disclosures, one would expect the County to thoroughly evaluate wildfire impacts from this Project, which would result in development countywide. Instead, the SMND relies on a baseline of conditions of 2016 to evaluate the impacts of the Project. For wildfire risk and other impact areas, this outdated baseline is insufficient. As noted above, since 2017, approximately 25 percent of county land has experienced fire. Personal communication: C. Borg, Urban Planner with SM&W and Dr. D. Eppstein, March 1, 2021. In addition, the mountainous, highly combustible areas in eastern Sonoma County have a Fire Hazard Severity Zone (FHSZ) ranking of “very high” and “high” according to California Department of Forestry and Fire Protection (CAL FIRE 2020) maps, and therefore are the most susceptible to wildland fires. *See* Exhibit 36.

As the climate changes and fire risk grows, Californians and Sonoma County residents and their neighbors are rightfully concerned about the risk of wildfire. With the state still recovering from the disastrous fires of 2020, decisionmakers must consider the role that increased development plays in the proliferation of wildfires, especially when that development encroaches into heavily forested areas with steep hills. CEQA requires environmental documents to analyze the risk of wildfire and the contribution of new projects to the risk of wildfire. In light of the County’s history of severe fires, one would expect a thorough evaluation of fire risks associated with changes to allowed land uses.

The SMND here fails at every juncture to provide the legally required analysis of the Project’s direct, indirect, and cumulative impacts of a disastrous wildfire. First, the SMND ignores how changes to the climate will impact wildfires in the future. It then provides a legally inadequate analysis of the direct, indirect, and cumulative wildfire hazard impacts associated with easing permit requirements for allowing cannabis cultivation and production in rural undeveloped areas. The SMND exacerbates the failure to identify and analyze the Project’s significant impacts by relying on token mitigation measures that do little to reduce the Project’s admittedly significant fire hazard impacts, especially in RRD-zoned parcels. SMND, p. 67..

1. The SMND fails to adequately address future changes in precipitation, temperature and wind and their effects on fire hazards.

It is common knowledge that climate change will increase the risk and frequency of wildfire as well as the severity of wildfire events. For example, the intensity of and number of days with Diablo winds is expected to increase. Expected changes in precipitation will result in decreased fuel moisture and increased fire risk. Exhibit 37, A.L. Westerling, H.G. Hidalgo, D.R. Cayan, and T.W. Swetnam, Warming and Earlier

Spring Increase Western U.S. Forest Wildfire Activity, 313 Science 940 (2006); Exhibit 38, D. Cayan, A. L. Luers, M. Hanemann, G. Franco, and B. Croes, Scenario of Climate Change in California: Overview, CEC-500-2005-186-SF (2006).

As discussed in section II.B. above, wildfire season in the western region of the United States, including California, recently has lengthened from a previous average of between five and seven months to a year-round occurrence. The number of large wildfires that burn more than 1,000 acres has increased throughout the western United States. This is occurring as average annual temperature in the Western regions of the United States has risen by nearly two degrees Fahrenheit since the 1970s and the winter snow pack has declined. Union of Concerned Scientists, Infographic: Wildfires and Climate Change, September 8, 2020, <https://www.ucsusa.org/resources/infographic-wildfires-and-climate-change>, attached as Exhibit 39. The intensity of and number of days with Diablo winds is expected to increase. Expected changes in precipitation will result in decreased fuel moisture and increased fire risk. Exhibit 37 (Westerling, et al.); Exhibit 38 (D. Cayan, et al.) Exhibit 40 (LA Times “How Climate Change is Fueling Record-breaking California Wildfires, Heat and Smog” September 13, 2020) attached hereto.

Despite these known factors, the SMND fails to take them into consideration in its analysis of wildfire impacts, instead assuming that if future grow sites and facilities are built to code and follow minimal guidelines, the risk of fire and the resulting harm they cause will be less than significant. This myopic view of fire risk leaves the public and decision makers unable to fully understand the risk of potentially adding tens of thousands of acres of cannabis cultivation and production facilities in rural areas, in many cases adjacent to open space. The SMND failed to discuss these existing environmental conditions, and as a result, failed to adequately analyze wildfire hazard impacts within this context.

2. The SMND fails to adequately analyze and mitigate the fire hazard impacts of replacing open space land with cannabis cultivation and production facilities.

CEQA requires an analysis of both a project’s direct and reasonably foreseeable indirect impacts. Other than acknowledging that the Project could lead to a substantial expansion of cannabis cultivation and associated structures on parcels within high or very high fire severity zones, the SMND provides no analysis of the scope or extent of this impact and fails to identify the foreseeable indirect impacts that will occur as a result of the Project. The SMND cannot just provide bare conclusions, it “must contain facts and analysis” to support and explain such conclusions. *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.

The SMND fails to evaluate the potential for the Project to expose people or structures to a significant risk of loss, injury or death involving wildland fires. This is a potentially significant impact inasmuch as the proposed Project would result in more intensive use of rural lands in remote, wildland areas. Studies illustrate the heightened safety risks from development and intensification of land use in areas where fire is a natural part of the ecology and flammable vegetation exists. As development and more intensive land uses encroach on the wildland urban interface, it causes an increase in the number of fires and more loss of life. *See Land Use and Wildfire: A Review of Local Interactions and Teleconnections*, attached as Exhibit 41

A 2017 study that evaluated 1.5 million wildfires in the United States between 1992 and 2012 found that humans were responsible for igniting 84 percent of wildfires, accounting for 44 percent of the acreage burned in wildfires. *See Exhibit 42* (Balch, Jennifer; Bradley, Bethany; Abatzoglou, John, et. al., Human-Started Wildfires Expand the Fire Niche Across the United States, *Proceedings of the National Academy of Sciences*: Volume 114 No. 11 (March 14, 2017) <https://www.pnas.org/content/pnas/114/11/2946.full.pdf>, accessed on August 20, 2020), attached hereto.

The California Office of the Attorney General has noted that locating development in wildfire risk areas “will itself increase the risk of fire” and increase the risk of exposing existing residents to an increased risk of fire, citing a plethora of reports. Letter from Nicole Rinke to Planning Commission on Monterey dated March 20, 2019 at 3-4, attached as Exhibit 43.

Unlike the existing ordinance (*see* Chapter 26 § 26-88-258(a)(3)), the proposed Project would allow the use of volatile compounds on site. Cannabis grown on-site may be processed (dried, trimmed, etc.) on-site by the permittee as well as manufactured using industrial processes to extract the THC oil, and such cannabis products may be transported. *See Proposed § 38.14.020 (A)-(C)*. “Cannabis products” are defined in proposed section 38.18.020, and include edibles, topical products, and concentrated cannabis. Thus, besides volatile compounds, ethanol and high-pressure CO₂ extraction and distillation are allowed. Allowing these chemicals and processes onsite constitutes a serious fire risk that the fire prevention plan (SMND at 85) does not address or mitigate. Personal communication: C. Borg, Urban Planner with SM&W and Dr. D. Eppstein, March 1, 2021. The current cannabis ordinance limits such processes to industrial sites. *See SCC Chapter 26, Table 1D*.

Other elements of the Project will also increase fire risk and the inevitable resulting fires. Fires are frequently caused by infrastructure, such as roads, power lines, and gas lines. As Sonoma County knows too well from recent experience, power lines

ignite wildfires through downed lines, contact with vegetation, colliding conductors, and equipment failures. *See* Exhibit 44 (Texas Wildfire Mitigation Project, How Do Power Lines Cause Wildfires? (2018) <https://wildfiremitigation.tees.tam.us.edu/faqs/how-power-lines-cause-wildfires>, accessed on March 8, 2021), attached hereto. CalFIRE determined that 16 wildfires in northern California in October 2017 were caused by electric power and distribution lines, conductors, and the failure of power poles. *See* Exhibit 45 (California Department of Forestry and Fire Prevention CAL FIRE Investigators Determine Causes of 12 Wildfires in Mendocino, Humboldt, Butte, Sonoma, Lake, and Napa Counties (2018), attached hereto.

Other wildfires are caused by sparks or ignitions from vehicles on roadways. *See* Exhibit 46 (Pacific Biodiversity Institute, Roads and Wildfires (2007) http://www.pacificbio.org/publications/wildfire_studies/Roads_And_Wildfires_2007.pdf, accessed on March 8, 2021), attached hereto. The Project's new roads and additional vehicles on roadways from the Project will exacerbate the fire risk and increase the number of fires—significant environmental impacts unaddressed by the SMND.

The SMND itself acknowledges that commercial cannabis operations “are associated with high fire risk and have been responsible for structure fires in both urban and rural areas.” SMND at 67. The SMND also acknowledges that RRD-zoned areas “are known to be high fire hazard areas due to steep slopes, dense vegetation, and insufficient emergency services due to a lack of safe emergency vehicle access.” SMND at 67. Easing permit requirements and allowing cannabis grows with only ministerial approval is likely to encourage an influx of permit applications. Intensified land uses like these in remote areas, such as lands designated RRD in the eastern part of the County, increase ignition risk and vastly increase the cost of fighting wildland fires with task forces of urban fire engines needed to protect homes in the urban-wildland interface. At the same time, climate change is making summers hotter and drier, leading to an increase in the frequency and severity of catastrophic wildfire. Moreover, given that many rural parts of the County are accessed by narrow, substandard roads, increasing the intensity of land uses in areas with limited ingress/egress has the potential to degrade safe evacuation of residents as well as impede access for fire fighters and first responders during a fire.

Fire risk is not only a factor on remote parcels zoned RRD. It also affects parcels zoned LEA, LIA, and DA, many of which burned during the four wildland fires in Sonoma County that consumed 25 percent of its acreage since 2017. Much of the burned land is not designated as high or very high fire hazard severity zones. Fires that begin at cannabis cultivation sites can readily spread elsewhere in windy conditions as evidenced by the recent conflagrations in Sonoma County that began in Napa County and progressed into Sonoma during high wind events. For all these reasons, cannabis projects

in the wildland-urban interface expose people or structures, directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

The SMND admits the updated Ordinance could lead to a substantial expansion of cannabis cultivation and associated structures on parcels within very high fire severity zones. SMND at 99 and 100. The SMND even admits that “future cannabis cultivation facilitated by the updated Ordinance would have potentially significant wildfire impacts, as existing codes and regulations cannot fully prevent wildfires from damaging structures or harming occupants. Cannabis cultivation operations in high fire risk areas would increase the exposure of new structures and occupants to risk of loss or damage from wildfire.” SMND at 100. However, the SMND foregoes meaningful analysis of potential impacts to public safety and property loss during a wildfire event. It fails to include an analysis of potential cannabis facilities locating in remote areas with limited access, or locating in close proximity to rural residential development, and how potential fire in different scenarios might spread under different weather, fuel, wind and ignition point scenarios.

3. The SMND fails to analyze impacts related to emergency response and evacuation.

Concerning emergency response and evacuation, the SMND merely asserts that the Project would not affect emergency response routes or response times and concludes that impacts related to emergency evacuation would be less than significant. SMND at 98. The SMND provides no support for its conclusion. Despite the document’s admission that the Project would allow for expansion of cannabis cultivation within designated high fire risk areas in remote mountainous areas, and that the Project would result in potentially significant wildfire impacts, the SMND defers analysis and mitigation of this important issue.

Instead, the SMND relies on a project element requiring a site security plan that includes emergency access in compliance with fire safe standards. SMND at 99. The SMND also imposes two mitigation measures. The first addresses construction activities; it prohibits construction activities, such as welding and grinding outdoors during National Weather Service red-flag warnings and requires fire extinguishers and spark arresters on construction vehicles. The second addresses new structure locations; it requires compliance with existing regulations prohibiting cultivation on slopes greater than 15%, includes grading limits and ridgetop protections, and adds criteria for siting new structures including avoidance of landslide-susceptible areas and sloped hillsides. SMND at 101.

The SMND's approach to mitigation is inadequate under CEQA for multiple reasons. First, many of the potential sites that could be used for cannabis cultivation are located on substandard, narrow, dead-end, rural roads. *See e.g.*, photos of typical roads leading to existing cannabis cultivation sites in Sonoma County, attached as Exhibit 48. These roads fail to meet State Fire Safe Regulations as discussed further below. Secondly, even if emergency vehicles could traverse such roads, there is no space to allow for vehicles of evacuating residents that share those roads. Whether or not the County has adopted an emergency response plan to address these deficiencies, under CEQA the County has an obligation to evaluate the extent and severity of these public safety risks. The SMND bypasses the required step of analyzing the potential impacts of implementing the Project. For example, it fails to evaluate the potential for Project-related increased truck and automobile traffic to hinder evacuations on narrow rural roads and steep private roads. Consequently, the EIR lacks evidentiary support for its conclusion that the Project's impacts relating to evacuation and emergency response would not be significant.

The SMND's approach is particularly egregious given that a 2015 staff-prepared discussion paper on "Cannabis Cultivation Within Resources and Rural Development (RRD) Lands ("Discussion Paper"), addressed the inadequacy of rural roads in RRD areas and includes the following paragraph related to 'Emergency Services':

"The remote RRD zoned areas are primarily accessed by one lane gravel roads that are remnants of old logging roads. Most cultivation facilities would be required to construct paved, 2-way roads with an 18 foot minimum width, sufficient for emergency vehicle access. Water for fire suppression may also be required. Emergency response in these areas are handled by volunteer fire departments and response times vary."

Discussion Paper at 1, available at <http://sonomacounty.ca.gov/WorkArea/DownloadAsset.aspx?id=2147525642> accessed on March 8, 2021, attached as Exhibit 14. The Discussion Paper indicates that the County has data about rural roadways that should have been incorporated into this environmental documentation, yet the SMND is silent regarding safety issues resulting from substandard roadways in remote areas.

Moreover, State Fire Safety Regulations require a "minimum of two ten (10) foot traffic lanes" for emergency access and egress. *See*, California Code of Regulations, Title 14 Natural Resources, §1273.01. The California Board of Forestry and Fire Protection ("Board") has expressed its concerns regarding the County's standards for fire safe roads both because they omit standards included in the State's Fire Safe Regulations and because the County's standards on their face appear to be less stringent than the Fire Safe Standards. *See*, October 23, 2020 letter from Jeff Slaton, Senior Board Counsel for the

Board of Forestry and Fire Protection, to the Board of Supervisors, Exhibit 47. The Board expressed “particular concern” about standards for existing roads and for ingress/egress that allows concurrent civilian evacuation. Notwithstanding the County’s recent failed request for certification of its fire safe ordinance, the County has an obligation to evaluate the impacts of implementing the proposed Project and to identify mitigation measures to minimize significant impacts related to public safety.

The SMND should have prepared an evacuation analyses to identify areas that would have evacuation impacts. These analyses would have: (1) identified the locations of existing facilities that would experience increased events; (2) identified the locations of reasonably foreseeable new facilities; (3) identified the expected number of workers and total estimated amount of operational traffic at each of these facilities¹¹; (4) evaluated the capacity of roadways near the existing and new facilities and determined whether these roadways would be able to accommodate added traffic during evacuations; (5) modeled the various scenarios of wildland fire that could occur near each facility’s vicinity; and (6) determined whether (a) area residents and facility visitors would have adequate time to escape and (b) emergency service providers would be able to access the sites’ in a timely manner, consistent with emergency service response time goals. It is imperative that such analyses be conducted for the proposed Project given the wildfire crisis that is plaguing the West and given the potential for cannabis cultivation and production facilities to locate in a “Very High Fire Hazard Severity” and “High Fire Hazard Severity” zones. *See* Exhibit 36 CalFire Fire Sonoma County Hazard Severity Zones December 2020 and Exhibit 49 Wildland Fire Hazard Areas Map, Public Safety Element, Sonoma County General Plan 2020.

In addition, it has come to our attention that the County Board of Supervisors’ tentative calendar for 2021 includes a two-hour item scheduled for August 17, 2021 to review and adopt the County’s plan for preparing and conducting large-scale community emergency evacuations. This planning process for community evacuations during emergencies should precede and inform the County’s consideration of this proposed Project. Once the County has a better understanding of the areas of vulnerability and requirements for safely evacuating residents during emergencies, that valuable information can be incorporated into an EIR for this Project to comprehensively evaluate potential public safety issues for the community.

¹¹ For example, if the Project were implemented on Matanzas Creek Lane, a 1-mile dead-end road that is only 11 feet wide, 720 people could be employed that would have to be evacuated. Comments by Bill Burns and Sherilyn Burns, Exhibit 22. This is an enormous increase from evacuating residents of 17 parcels.

Nor does the EIR consider in any meaningful way post-fire condition hazards associated with unstable slopes, such as landslides, erosion, and gullyng. *See* Exhibit 50 (US Geological Survey, New Post-Wildfire Resource Guide now Available to Help Communities Cope with Flood and Debris Flow Danger (2018), https://www.usgs.gov/center-news/post-wildfire-playbook?qt-news_science_products=1#qt-news_science_products, accessed on March 8, 2021), attached hereto. After a fire, landslide hazards, including fast-moving, highly destructive debris flows, can occur because fires destroy vegetation that slows and absorbs rainfall and harm roots that stabilize soil. *Id.* The burning of vegetation and soil on slopes more than doubles the rate that water will run off into watercourses. *See* Exhibit 51 (California Department of Conservation, Post-Fire Debris Flow Facts, 2019, <https://www.conservation.ca.gov/index/Pages/Fact-sheets/Post-Fire-Debris-Flow-Facts.aspx#:~:text=The%20January%202018%20Montecito%20debris,Geological%20Survey%20scientists%20estimated%20the>, accessed on March 8, 2021). Post-fire debris flows are particularly hazardous because they can occur with little warning, damage objects in their paths, strip vegetation, block drainage ways, damage structures, and endanger human life. *Id.* An EIR must include this analysis.

4. The proposed mitigation will not reduce wildfire hazard impacts to a less than significant level.

Despite the obvious severity of potential impacts resulting from proliferating cannabis facilities countywide, the SMND relies on impotent mitigation measures that do not actually mitigate anything. The minimal mitigation the SMND proposes fails to reduce fire hazard impacts to a less-than-significant level.

The SMND largely relies on consistency with Fire Code requirements and required preparation of a “fire prevention plan” as part of the application process. SMND at 99. The fire prevention plan is to demonstrate compliance with the Fire Code and applicable local and state standards. *Id.* As discussed in more detail below, CEQA directly forbids an assumption, without underlying analysis, that simply complying with a regulatory standard is adequate to mitigate a potentially significant impact. *See, e.g., Californians for Alternatives to Toxics v. Department of Food & Agriculture* (2005) 136 Cal.App.4th 1, 16-17 (compliance with regulation alone not a basis for finding impact less than significant); *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-09 (environmental effect may be significant despite compliance with such requirements).

Moreover, any proposed facilities are already required to comply with fire regulations. Merely requiring compliance with existing agency regulations does not conclusively indicate that a proposed project would not have a significant and adverse

impact. *See Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d at 716. Furthermore, the SMND indicates that the Project's wildfire impacts would be significant notwithstanding the Project's compliance with the Fire Code and local and state standards. SMND at 99. Thus, there is no substantial evidence to support the SMND's conclusion that the Project's fire hazard impacts will be less-than-significant.

This blatant failure to mitigate wildfire risks is especially problematic in light of California's recent spate of deadly wildfires; it is unfathomable that the County could even consider approving potentially tens of thousands of acres of cannabis facilities on rugged terrain without first paying adequate consideration to fire and emergency response. As such, the County cannot approve the Project unless it recirculates a EIR that adequately mitigates the aforementioned wildfire impacts.

In sum, the Project would encourage development of new cannabis cultivation and production facilities by making the permits easier to obtain and making the facilities more profitable by allowing events. As the SMND acknowledges, most lands zoned RRD and DA are located in more remote areas of the County. The SMND is legally inadequate due to its failure to address the threat posed by an increase in land use intensity and traffic in rugged, remote areas of the County. Until this issue is examined thoroughly in an EIR, the County may not approve the proposed Zoning Code and General Plan amendments.

E. The SMND fails to adequately analyze and mitigate the Project's traffic impacts related to an increase in Vehicle Miles Travelled.

The SMND presents a deficient traffic analysis which fails to address the true impacts of the Project. First, as discussed in Section III of this letter above, because the SMND focuses solely on the impacts of individual permits, it fails to adequately analyze the impacts of the Project as a whole. With regarding to traffic related impacts, the SMND fails to analyze impacts associated with a significant increase in VMT from the aggregate increase generated from all potential permits allowed by the Project. Instead, it limits its comments to the potential effects of traffic trips from each separate facility. As discussed above, this approach is inappropriate under CEQA. The proposed Project is not an end in itself. It is the prelude to development of additional cannabis cultivation and production sites and additional events at these facilities.

Breaking the Project into parts by leaving out the future activity of having multiple applications annually is illegal segmentation and leads to inadequate environmental review. *See, e.g., Bozung v. Local Agency Formation Comm'n* (1975) 13 Cal.3d 263, 283-84 (CEQA mandates that "environmental considerations do not become submerged by chopping a large project into many little ones"). A lead agency, moreover, may not

segment a project by reviewing entitlements one at a time, waiting for each new approval to consider the specific development proposed. Instead, an agency must provide environmental review of an entire project at the time of the first approval. See, e.g., *City of Carmel-By-the-Sea* (1986) 183 Cal.App.3d 229, 233-35, 244 (city must analyze full environmental consequences of rezone because it “was a necessary first step to approval of a specific development project”); *Koster v. County of San Joaquin* (1996) 47 Cal.App.4th 29, 31, 34, 39-40 (County EIR must analyze General Plan amendment that was the “first step” toward developing new towns).

Second, what analysis the SMND does include is incomplete, inconsistent, and unsupported. For instance, the SMND states that “cultivation operations could have 100 to 200 employees commuting to the sites. SMND at 88. It then states that cannabis cultivation projects would generate a net increase of fewer than 110 average daily trips. The SMND fails to present any data to support either figure. Nevertheless, the number of trips and vehicle miles travelled that should have been considered are those from the expected *total* number of applications annually, not from each facility separately.

The County’s own documents provide evidence that trips and VMT are likely to be higher than this SMND presents. For example, the 2016 Negative Declaration for the Medical Cannabis Ordinance indicates that a one-acre cultivation site or a 0.25-acre indoor operation can each require 12-15 employees during peak periods and fifteen employees average 30-60 trips a day. Sonoma County 2016 Negative Declaration for the Medical Cannabis Ordinance at 44. A 2020 permit application for a 1-acre cannabis operation in Glen Ellen employs 12 full-time and five part-time staff during peak fire season. See Draft Mitigated Negative Declaration for UPC19-0002, Gordenker Ranch Cannabis at 6, attached as Exhibit 52. Using the County’s method of estimating daily trips from the number of employees in its 2016 Negative Declaration, 100 to 200 employees would result in 400 to 800 daily trips for a single large greenhouse project. This amount of increased traffic would result in adverse impacts related to public safety on narrow, rural roads, particularly during emergency evacuations.

The County can easily calculate an estimate of trips from all facilities together by estimating the number of applications based on the applications received in the past few years since cannabis cultivation has been allowed in the County and extrapolating from that number. See e.g., Yolo County Cannabis Land Use Ordinance Environmental Impact Report dated September 1, 2020 available at <https://www.yolocounty.org/government/general-government-departments/community-services/cannabis/cannabis-land-use-ordinance>, accessed on March 1, 2021; excerpts attached as Exhibit 23. Such estimates must differentiate between indoor and outdoor cultivation and size of projects to estimate the number of employees per acre, which would allow an estimate of the number of daily trips.

Moreover, the SMND's identified Mitigation Measures providing that individual cannabis cultivation project applicants provide analysis of the amount of average daily trips and vehicle miles travelled does not excuse the County from analyzing the impacts of implementing the Project now. Inasmuch as the proposed Code and General Plan amendments are the first discretionary approval that will ultimately result in development activity countywide, this environmental document must analyze the environmental impacts from these activities in as detailed a manner as possible. *Koster v. County of San Joaquin* (1996) 47 Cal.App.4th 29, 31, 34, 39-40.

Finally, the SMND's failure to properly evaluate Project's trips and VMT, implicates the SMND's analysis of greenhouse gases. An EIR for the Project must address this flaw.

F. The SMND fails to adequately analyze and mitigate the Project's greenhouse gas emissions.

The SMND acknowledges that cannabis cultivation is a land use that generates substantial greenhouse gas ("GHG") emissions from energy use. SMND at 61. It also discloses that new cannabis operations permitted under the proposed Project could contribute to an exceedance of California's statewide targets. *Id.* But again, the SMND foregoes the necessary analysis of estimating the amount of GHG emissions that would be emitted from implementation of the Project. Instead, the SMND assumes that Project elements would reduce GHG emissions to a less-than-significant level.

This approach fails under CEQA for multiple reasons. First, the SMND's perfunctory "analysis" of the Project's GHG impacts does not comply with CEQA. Rather than study the environmental implications of the Project's GHG emissions, the SMND takes the legally impermissible easy route: it simply labels impacts as significant, without offering any information on the nature or scope of the problem. It is not sufficient to simply assert that an impact is significant and then move on. This approach does not allow decision makers and the public to understand the severity and extent of the Project's environmental impacts. *See, e.g., Berkeley Keep Jets Over the Bay Com. v. Bd. of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1370-71; *Galante Vineyards v. Monterey Peninsula Water management Dist.* (1997) 60 Cal.App.4th 1109, 1123; *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831 (a lead agency may not simply jump to the conclusion that impacts would be significant without disclosing to the public and decision makers information about how adverse the impacts would be).

The SMND should have calculated the amount of GHG emissions from the project based on the Ordinance requirements and limitations. *See*, Estimating Adequate Licensed Square Footage for Production, BOTECH Analysis Corporation, 2014, attached as Exhibit

53 and available at https://www.cannabisbusinessexecutive.com/wp-content/uploads/2014/11/5a_Cannabis_Yields-Final.pdf accessed March 16, 2021. For example, based on the assumption that indoor grows can yield .04 kg per square foot of cannabis per harvest, and that indoor grows can yield 4-6 harvests per year. An indoor grow of 20,000 square feet, with four harvests per year, would thus produce 3,200 kg of cannabis annually. Converting that to ounces, you get 112,876.7 ounces, which would generate 16,141,368 pounds, or about 7,300 metric tons per year of carbon emissions, which would be the equivalent of adding 1,460 cars to the road. This estimate would be for a single indoor grow of approximately 20,000 square feet. The Ordinance does not contain a limit on existing permanent indoor structures, and limits new structures (on parcels of 10-20 acres) to 43,560 square feet.

Second, the SMND relies on the proposed Ordinance's requirement that greenhouse and indoor cultivation sites reduce GHG emissions either by using 100 percent renewable energy sources or by offsetting emissions from non-renewable sources by purchasing carbon credits. SMND at 61. However, the SMND cannot simply assume that the purchase of GHG offsets will eliminate the Project's GHG emission impacts. Until the SMND's provides a comprehensive analysis of the Project's impacts, it is not possible to formulate effective mitigation. Moreover, even if offsets were potentially feasible mitigation, the SMND must demonstrate their effectiveness in reducing the Project's climate change impacts. When a lead agency relies on mitigation measures to find that project impacts will be reduced to a level of insignificance, there must be substantial evidence in the record demonstrating that the measures are feasible and will be effective. *Sacramento Old City Assn. v. City Council of Sacramento*, 229 Cal.App 3d 1011, 1027 (1991); *Kings County*, 221 Cal.App. 3d at 726-29. As discussed further below, we can find no such evidence here.

The proposed Ordinance provision related to the offset requirement states that "any offsets shall be generated in California pursuant to protocol accepted by the County...", but neither the Ordinance nor the SMND specify what this protocol will entail. SMND at 61 and draft Ordinance at § 38.12.110.C. Moreover, the SMND confers complete discretion in County staff to determine whether the purchased carbon offsets meet the unspecified protocol and whether the offsets are adequate to reduce impacts. *Id.* Courts have found mitigation fees inadequate where the amount to be paid for mitigation was unspecified and not "part of a reasonable, enforceable program." *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1189; see also *Cal. Clean Energy Com. v. City of Woodland* (2014) 225 Cal.App.4th 173, 198.

In practice, even the most sophisticated offset programs have failed. A 2016 report prepared for the EU Directorate General for Climate Action concluded that nearly 75% of the potential certified offset projects had a low likelihood of actually contributing

additive GHG reductions, and less than 10% of such projects had a high likelihood of additive reductions. Exhibit 54 (Institute of Applied Ecology, *How additional is the Clean Development Mechanism? Analysis of the application of current tools and proposed alternatives*, March, 2016) at 11; see also Exhibit 55 (*Carbon Credits Likely Worthless in Reducing Emissions, Study Says*, Inside Climate News, April 19, 2017.) Partly in recognition of these flaws, offsets are typically permitted to constitute only a very small part of an overall emission reduction program—for example, California’s cap and trade program allows no more than 8 percent reductions come from offsets. There is simply no evidence that the undefined, unenforceable offsets proposed by the SMND will cause any meaningful reduction to mitigate the permanent increase in GHG caused by the proposed development. Protocols adopted by voluntary market registries may not meet standards necessary to ensure that Project emissions actually will be reduced to a less than significant level. See *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5th 467 at 511-12.

An EIR on the Project must address the aforementioned flaws by providing a detailed analysis of GHG emission impacts and mitigation to minimize those impacts.

G. The SMND fails to adequately address the Project’s related impacts on energy use, wildfire safety, and utility services.

1. Energy use under the Ordinance would vastly exceed the County’s threshold, such that the proposed mitigation measure is woefully inadequate.

CEQA requires that a lead agency analyze the energy impacts of a proposed project, specifically, whether the project would “result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.” CEQA Guidelines, Appendix G, § VI(a); see also Pub. Resources Code § 21100(b)(3); CEQA Guidelines § 15126.2(b). This analysis must include the project’s energy use “for all phases and components.” CEQA Guidelines § 15126.2(b). If this analysis indicates that a project would result in wasteful or inefficient energy use, the agency “shall mitigate” this significant impact. *Id.* Related to this requirement, the lead agency must also analyze whether the proposed project would “require or result in the relocation or construction of new or expanded. . . electric power [or] natural gas . . . facilities, the construction or relocation of which could cause significant environmental effects.” CEQA Guidelines, Appendix G, § XIX(a).

According to the California Public Utilities Commission, cannabis is an energy-intensive crop when grown indoors. See *Energy Impacts of Cannabis Cultivation*, Cal.

Pub. Utils. Com., April 2017, attached as Exhibit 56.¹² “According to a recent study ... Seattle Light and Power estimates a 3% increase in overall electric demand as a result of legal cannabis production, and a utility interviewee from Colorado estimated that the total load growth for the state attributable to cannabis production since 2013 was between 0.5% and 1%. In 2015, Bloomberg researchers estimated that cannabis grow facilities made up almost 50% of the new power demand in Colorado.” J. Remillard & N. Collins, *Trends and Observations of Energy Use in the Cannabis Industry*, Alliance for an Energy Efficient Economy (2017) (internal citations omitted), attached as Exhibit 57.¹³ See also “Nearly 4 Percent of Denver’s Electricity Is Now Devoted to Marijuana,” CPR News, published Feb. 19, 2018¹⁴; “3 Big Questions About Energy Use in Legal Cannabis Cultivation,” Midwest Energy Efficiency Alliance, published August 27, 2019 (“Oregon has experienced localized blackouts due to the added strain on the electric grid from indoor cannabis facilities.”)¹⁵; “Electricity Use in Marijuana Production,” Nat’l. Conference of State Legislatures, published August 2016 (“The electricity consumption of growhouses is staggering when compared to business and residential use.”)¹⁶; “Most states legalizing marijuana have yet to grapple with energy demand”, Energy News Network, published July 27, 2019 (“[S]tates legalizing cannabis so far have done little to limit or even track the huge amounts of energy needed to grow it indoors.”)¹⁷.

The SMND’s analysis of these issues is cursory and violates CEQA. First, rather than cite to the copious literature on the energy intensity of commercial cannabis operations, the SMND merely states that “indoor and mixed-light operations can require a relatively large amount of electricity” due to the various energy-intensive activities

¹² Available at:

[https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/About_Us/Organization/Divisions/Policy_and_Planning/PPD_Work/PPD_Work_Products_\(2014_forward\)/PPD%20-%20Prop%2064%20Workshop%20Report%20FINAL.pdf](https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/About_Us/Organization/Divisions/Policy_and_Planning/PPD_Work/PPD_Work_Products_(2014_forward)/PPD%20-%20Prop%2064%20Workshop%20Report%20FINAL.pdf) (last visited March 11, 2021).

¹³ Available at:

https://www.aceee.org/files/proceedings/2017/data/polopoly_fs/1.3687880.1501159058!/fileserver/file/790266/filename/0036_0053_000046.pdf (last visited March 11, 2021).

¹⁴ Available at: <https://www.cpr.org/2018/02/19/nearly-4-percent-of-denvers-electricity-is-now-devoted-to-marijuana/> (last visited March 11, 2021).

¹⁵ Available at: <https://www.mwalliance.org/blog/3-big-questions-about-energy-use-legal-cannabis-cultivation> (last visited March 11, 2021).

¹⁶ Available at: <https://www.ncsl.org/research/energy/electricity-use-in-marijuana-production.aspx> (last visited March 11, 2021).

¹⁷ Available at: <https://energynews.us/2019/06/27/most-states-legalizing-marijuana-have-yet-to-grapple-with-energy-demand/> (last visited March 11, 2021)

involved in cultivation, including but not limited to building lighting and heating and cooling systems, and other energy usage for cultivation, processing and distribution. SMND at 49. Nor does the SMND attempt to identify existing energy supplies and energy use patterns in the region and locality. CEQA Guidelines § 15126.2(b). Instead, the SMND includes a table showing the total electricity and natural gas demand in PG&E's entire service area of Northern California. SMND at 48. This information serves no purpose for determining the impact of the project on existing energy supplies in Sonoma County. Consequently, the SMND does not include a baseline against which the project's energy intensity can be measured. CEQA Guidelines § 15125(a) (physical environmental conditions "in the vicinity of the project" will normally constitute the baseline physical conditions by which the lead agency determines whether an impact is significant).

The SMND establishes a threshold of significance for the project's impact on inefficient or wasteful energy use. A significant impact due to the wasteful or inefficient use of energy would occur if a cannabis operation uses more than 25.5 kWh/square foot annually. SMND at 49. Yet, the SMND makes no effort to identify the "[t]otal energy requirements of the project by fuel type and end use," or the "[t]otal estimated daily vehicle trips to be generated by the project and the additional energy consumed per trip by mode." CEQA Guidelines, Appendix F. Instead, the SMND states that indoor cultivation *generally* uses 200 kWh/square foot annually and that mixed-light cultivation uses 110 kWh/square foot annually. SMND at 48. However, the SMND also states that energy use "can vary widely as a result of factors such as plant spacing, layout and the surrounding climate." *Id.* Rather than use a generic range for the energy intensity of indoor operations, the County should have used a modeling tool, such as CalEEMod, to estimate the maximum potential energy intensity of the proposed project, assuming all properties currently or foreseeably eligible for cultivation under the Ordinance were to construct growing facilities to the maximum extent permitted. *See Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 194 (evaluation of action must include analysis of all activities permitted by the action). This tool also should take into account the unique climatic conditions of Sonoma County.¹⁸

¹⁸ The SMND furthermore errs in estimating the project's energy use from transportation modes associated with workers, by assuming that "the number of employees working ...[is] likely similar to existing and planned" agricultural facilities in the County. SMND at 50. Whether the average number of workers per existing or planned agricultural operation would be "similar" under the proposed Ordinance is not the point; rather, for purposes of estimating energy impacts, the SMND must look at the *absolute* number of

Even omitting a discussion of factors which may result in higher energy uses by cannabis operations in Sonoma County, the SMND thus indicates that indoor operations could use *eight times* more energy than the County’s threshold of significance for determining whether energy use is wasteful or inefficient. The SMND therefore finds that the Project would result in a significant impact. SMND at 50. However, the SMND asserts that, with implementation of Mitigation Measure ENERGY-1, the Ordinance “would not result in wasteful or unnecessary energy consumption in Sonoma County, and impacts would be less than significant with mitigation incorporated.” *Id.*

The County’s proposed mitigation measure for this significant impact is woefully insufficient to reduce this impact to below the threshold of significance. The measure would merely require that, before receiving a building permit, an applicant must submit an “energy conservation plan” to reduce energy use below the threshold of significance (25.5 kWh/square foot per year). This plan must contain (1) a detailed inventory of the proposed project’s energy demand, and (2) a program for reducing or “offsetting” the project’s energy use such that it does not exceed the threshold, including but not limited to “[e]vidence that the project will permanently source project energy demands from renewable energy sources (*i.e.*, solar, wind, hydro),” or reduce energy use through energy efficiency measures. SMND at 51.

There are numerous legal problems with MM ENERGY-1. First, the mitigation measure is duplicative of the Ordinance itself, and thus would not actually “mitigate” anything. Per section 38.12.110 of the proposed Ordinance, indoor and greenhouse projects would *already* be required to be fully powered by renewable energy, or else offset by carbon credits determined by the County to be verifiable and enforceable. SMND at 49. The SMND finds that notwithstanding this requirement of the Ordinance, impacts would still be significant; hence the proposal of MM-ENERGY-1. Yet, the mitigation measure would merely require what the Ordinance already requires—that projects be powered by renewable energy.

Second, the SMND provides no evidence that any combination of either grid-tied, or on-site renewable generation, or energy efficiency, would be sufficient to power the types of cannabis operations the Ordinance would allow throughout the County, whether individually or cumulatively. Under CEQA, mitigation measures’ efficacy must be apparent and there must be evidence in the record showing they will be effective in remedying the identified environmental problem. *See Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1168. MM ENERGY-1 does not come close to meeting

new workers/truck trips that would result. Thus, the SMND lacks any evidence to conclude that worker-associated transportation would not result in significant energy impacts.

this standard. Similarly, allowing applicants to “offset” their energy use by buying carbon credits does not actually address the issue of whether there is sufficient energy *supply* to support the projects the Ordinance would allow. *See also* Section V.C, *supra*, discussing requirement that mitigation relying on carbon “offsets” be verifiable, enforceable and non-duplicative.

Third, by its own terms, MM-ENERGY-1 would only apply to cannabis operations in new buildings; it would not apply to cannabis operations newly allowed by the Ordinance in existing buildings. As explained in proposed section 38.12.030 – Limitation on Canopy and Structures, the Ordinance does not limit the square footage of indoor cannabis operations in existing structures. Thus, despite the fact that the wasteful use of energy from indoor cannabis operations allowed under the Ordinance could exceed the County’s threshold by eight times, MM-ENERGY-1 would only attempt to address wasteful energy use in new structures.

2. The SMND fails to analyze whether the Project would require new or expanded electric distribution facilities, the construction of which could cause significant impacts.

Given that the SMND indicates that the types of projects the Ordinance would allow could massively exceed the County’s threshold of significance, the County should have analyzed whether the current distribution system—as distinct from current energy *supply*—has sufficient capacity to serve these projects, both individually and cumulatively. Under CEQA, the lead agency must analyze whether the proposed project would “result in the relocation or construction of new or expanded. . . electric power [or] natural gas . . . facilities, the construction or relocation of which could cause significant environmental effects.” CEQA Guidelines, Appendix G, § XIX(a). Among other things, new electric wires create an increased risk of wildfire, which is a significant environmental impact under CEQA. *See, e.g.*, Pub. Resources Code § 8386(b) (each utility shall submit annual wildfire mitigation plan, including a “description of the preventive strategies and programs to be adopted by the [utility] to minimize the risk of its electrical lines and equipment causing catastrophic wildfires.”); *see also* SMND at 99-100 (concluding that “the updated Ordinance would not require the installation of new power line infrastructure, and therefore would not exacerbate fire risk.”).

The SMND completely fails to do this. The SMND’s discussion of this potential impact cross-references the aforementioned finding that “because the updated Ordinance would allow for larger cannabis operations . . . large-scale new cannabis uses could potentially exceed energy supply during operation.” SMND at 96. Yet, instead of analyzing whether the project would require the “relocation or construction of new or expanded. . . electric power [or] natural gas . . . facilities,” the SMND concludes *without*

evidence that aforementioned MM-ENERGY-1 would avoid having to construct new distribution facilities. The SMND fails to recognize that even if sufficient generation were available to serve the projects that will be allowed by the Ordinance, substantial upgrades to the distribution system would likely be necessary in order to supply this energy to individual projects, often in remote rural areas where distribution systems are already marginal.

In fact, there is substantial evidence that PG&E's current distribution system in Sonoma County would not support the type and scale of projects the Ordinance would allow, even if sufficient renewable generation were available to supply these projects. As just one example of an existing and proposed project that together would likely exceed the current distribution line capacity, there is an existing grow and adjacent proposed cultivation both on Palmer Creek Road, Healdsburg (permit nos. UPC17-0067 and UPC18-0046, respectively). PG&E's Integration Capacity Analysis ("ICA") map shows the feeder nearest these two sites, which indicates zero capacity for additional load and also zero capacity for additional distributed generation. This map suggests, first, that an upgrade to the distribution system would be needed to support the considerable additional electricity demand (or load) associated with cannabis production at these locations; and second, that it would not be possible for an applicant simply to install their own on-site renewable generation to meet their new demand. *See* Exhibit 58 (ICA map screenshot showing feeder nearest Palmer Creek Road).¹⁹ The County must use all available tools to evaluate whether buildout of cannabis operations under the proposed Ordinance would exceed the available capacity of the distribution system, particularly in areas where the Ordinance would actually or foreseeably allow cultivation operations.

¹⁹ "Load ICA" is defined as the "[a]mount of load that can be installed at that location without any thermal or voltage violations at the time the integration capacity analysis was performed." *See* Exhibit 59, PG&E's instruction manual for ICA maps, at 10. Although PG&E's data does not prove conclusively that upgrades to electric infrastructure would be necessary (*see, e.g.*, recent order from an Administrative Law Judge in the California Public Utilities Commission's ICA proceeding, requiring the Investor Owned Utilities ("IOUs"), including PG&E, to clean up their messy data; the order is available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M361/K810/361810169.PDF>), it is the best data publicly available at this time, and it demonstrates that the County must do a more in-depth investigation before proceeding. Alternatively, the County must require a permit-by-permit discretionary review to determine, at the time of permitting, whether significant impacts would occur.

H. The SMND fails to adequately analyze and mitigate the Project's noise impacts.

The proposed Project would result in a significant increase in cannabis cultivation operations in the County. The SMND acknowledges that these facilities, particularly mixed light and indoor cultivation structures use HVAC units, and other noise producing equipment that operates 24 hours per day. SMND at 80. Hoop houses can have electrical and mechanical equipment (§ 38.18.020) and could produce noise from fans and HVAC. Unshielded HVAC equipment located within 1,000 feet of an offsite receptor could generate noise exceeding the “nighttime standard of 45 dBA L50.” SMND at 80. The SMND discloses that even with shielding, HVAC “equipment could still exceed the nighttime standard within a distance of 300 feet from sensitive receptors.” *Id.* The SMND concedes it “is necessary to require a sufficient setback between HVAC equipment and sensitive receptors.” *Id.*

The noise resulting from implementation of the Project will detrimentally affect rural communities and residents living near cannabis cultivation sites. Despite the SMND’s disclosure of the Project’s anticipated exceedance of the County’s noise standards, the SMND fails to provide a complete evaluation of the Project’s noise impacts. As an initial matter, given that the SMND’s traffic analysis underestimates Project-related traffic, operational noise impacts at adjacent residential areas are likely to be even higher than the SMND discloses. Once the County calculates a more accurate estimate of truck and vehicle traffic associated with cannabis cultivation and associated special events, the revised analysis can be used to estimate noise impacts.

In addition, a revised analysis must calculate anticipated noise from various types of facilities using typical equipment. The analysis should take into account the potential for multiple facilities to locate near each other and/or along one roadway. Concerning noise from special events, the County must calculate the number of events that can take place at facilities based on any limits imposed by the relevant Code section on such events rather than assuming that such events “would occur infrequently.” SMND at 81. Without such an analysis, the SMND provides no evidence that the amount of noise reduction provided through identified best management practices will be sufficient to reduce noise to less-than-significant levels. SMND at 82.

I. The SMND fails to analyze significant impacts associated with loss of farmland.

The SMND fails to adequately analyze or mitigate the effects of the Project on agricultural land conversions in the foothills and mountainous areas of the County. Implementation of the Project would allow the avoidable conversion of thousands of

acres of lands currently designated for grapes and other food crops to cultivation and production of cannabis. Despite this potential loss of farmland, the SMND includes virtually no analysis of the Project's impacts on the loss of agricultural land for cultivation of food crops. As explained in section VIII below, cannabis cultivation is qualitatively different from other forms of agriculture, particularly in terms of its environmental impacts, and thus should not be redefined as "agriculture" in the County's General Plan.

The lucrative business of growing cannabis provides financial incentives to convert traditional agricultural land to cannabis uses. An increase in cannabis facilities in remote, rural areas will in turn add more pressure for even more conversion of rural agricultural lands used for food production. The SMND acknowledges this potential conversion of land when it states: "Expanded cannabis operations under the updated Ordinance also would displace other types of agricultural cultivation (*e.g.*, vegetables, grapes, and plant nurseries)...." SMND at 61. Nonetheless, the SMND fails to evaluate the impacts of displacing traditional agricultural activities.

The Sonoma County General Plan Agricultural Element (Agricultural Element) indicates that supporting cultivation of the food system is considered a priority. For instance, the Agricultural Element states that the purpose of the general plans is "to establish policies to insure the stability and productivity of the County's agricultural lands and industries." Agricultural Element at AR-1. The Agricultural Element at section 2.10, where it indicates that aquaculture and fishing should be considered along with land based agricultural practices, does so because those businesses produce a food source. The Agricultural Element specifies :

"Aquaculture and the fishing industry produce a food source and have needs similar to land based agricultural operations. Policy is needed to treat the support facilities of the fishing industry that relate to food production or harvesting in the same manner as those of other agricultural production."

Agricultural Element at AR-2. Similarly, Agricultural Element Policy AR-1e states:

"Encourage and support farms and ranches, both large and small, that are seeking to implement programs that increase the sustainability of resources, conserve energy, and protect water and soil *in order to bolster the local food economy*, increase the viability of diverse family farms and improve the opportunities for farm workers."

Agricultural Element at AR-3; emphasis added.

In light of the fact that agriculture is an important land use in Sonoma County, that the County is known for its vineyards and sustainable agriculture, and that it has long been a high priority of the County to provide for the conservation of its agriculture, the avoidable loss of thousands of acres of productive farmland to the cannabis industry resulting from the Project is significant. Thus, the County must include analysis of this significant impact in an Environmental Impact Report for the Project.

Finally, it is important to note that the permanent protection of agricultural and open space areas has become an urgent need throughout the state. California statutory and case law have long recognized open space as a valuable environmental resource. Accordingly, the California Legislature has declared that "open-space land is a limited and valuable resource which must be conserved wherever possible." Gov't Code § 65562(a). Nearly fifty years ago the California Supreme Court recognized that "[t]he elimination of open space in California is a melancholy aspect of the unprecedented population increase which has characterized our state" *Associated Home Builders of the Greater East Bay, Inc. v. City of Walnut Creek*, 4 Cal.3d 633,638 (1971), cert. denied, 404 U.S. 87S (1971). Of course, the problem has become ever more serious since the Court's prescient statement.

J. The SMND fails to adequately analyze and mitigate the Project's impacts on specific and area plans.

The SMND fails to analyze conflicts with any of the County's eight specific and area plans. Policy LU-1a of the General Plan emphasizes that:

A Specific or Area Plan may establish more detailed policies affecting proposed development, but may not include policies that are in conflict with the General Plan. In any case where there appears to be a conflict between the General Plan and any Specific or Area Plan, the more restrictive policy or standard shall apply.

In particular, the Project conflicts with policies in the Bennett Valley Area Plan and possibly other specific and area plans. Land Use Policy 2 in the Bennett Valley Area Plan provides "Commercial development is not considered appropriate to the rural character of Bennett Valley." Both Chapter 26 and Chapter 38 permit *commercial* cannabis activity, and Sonoma County Counsel has concluded that discretionary approvals under Chapter 26, building permits issued under chapter 7, and grading permits issued under chapter 7 are "development."²⁰

²⁰ See, Comments submitted by Bennett Valley Citizens for Safe Development, Exhibit 22.

Land Use Policy 3 provides “[d]evelopment shall be coordinated with the public's ability to provide schools, fire, police and other needed services.” Emphasis added. Crime is a major concern with cannabis cultivation, and it can take 30 to 45 minutes for a sheriff to respond to a call in Bennett Valley. The Proposal would allow 600 acres of commercial marijuana cultivation in Bennett Valley and fails to discuss or mitigate this issue. Possible mitigations include establishing a sheriff’s substation in Bennett Valley; banning permits on properties located on shared access roads to minimize home invasions of innocent non-growers; and banning marijuana grows adjacent to parcels that are zoned residential to limit home invasions of neighbors not involved with marijuana cultivation.²¹

VI. The SMND fails to provide any analysis of the Project’s potentially significant cumulative impacts.

CEQA requires lead agencies to disclose and analyze a project’s “cumulative impacts,” defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Guidelines § 15355. Cumulative impacts may result from a number of separate projects, and occur when “results from the incremental impact of the project [are] added to other closely related past, present, and reasonably foreseeable probable future projects,” even if each project contributes only “individually minor” environmental effects. Guidelines §§ 15355(a)-(b). A lead agency must prepare an EIR if a project’s possible impacts, though “individually limited,” prove “cumulatively considerable.” Pub. Res. Code § 21083(b); Guidelines § 15064(i).

Extensive case authority highlights the importance of a thorough cumulative impacts analysis. In *San Bernardino Valley Audubon Society v. Metropolitan Water Dist. of Southern Cal.* (1999) 71 Cal.App.4th 382, 386, 399, for example, the court invalidated a negative declaration and required an EIR be prepared for the adoption of a habitat conservation plan and natural community conservation plan. The court specifically held that the negative declaration’s “summary discussion of cumulative impacts is inadequate,” and that “it is at least potentially possible that there will be incremental impacts. . . that will have a cumulative effect.” See also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d at 728-729 [EIR’s treatment of cumulative impacts on water resources was inadequate where the document contained “no list of the projects considered, no information regarding their expected impacts on groundwater resources and no analysis of the cumulative impacts”].

In contravention of the above authorities, the SMND provides no discussion or analysis whatsoever of the Project’s cumulative impacts. SMND at section 21 at 103.

²¹ *Id.*

Instead the SMND makes conclusory statements regarding the Project's cumulative impacts. For example, the SMND claims that the Project "would not adversely affect biological, cultural, or other physical resources outside of the project sites." *Id.* As discussed throughout this letter, this statement is incorrect. First, the SMND's purported analyses on these topics focuses only on potential impacts from each individual facility (as opposed to impacts from all possible facilities under the Project), thus failing to evaluate the impacts from the whole of the project. Second, the SMND fail to consider other potential Projects or the cumulative effects of the whole project along with other projects. Impacts related to hydrology, water quality, and groundwater will result in cumulative impacts to area rivers and streams that support sensitive fish species. *See also*, Letter from Robert Coey, National Marine Fisheries Service dated February 26, 2021 attached as Exhibit 6. The SMND fails to evaluate these impacts.

The SMND's cumulative impact analysis refers the reader to the individual resource section for a discussion of the Project's cumulative air quality and greenhouse gas impacts. *Id.* Again, the SMND purported analyses on these topics focuses only on potential impacts from each individual facility. SMND at 30. While the SMND asserts that "[A]ir pollutant emissions from individual projects can contribute to cumulative air pollution in a regional air basin," no actual analysis is included. *Id.* Moreover, as discussed above the SMND fails to provide evidence that the identified mitigation measures will be enforceable and effective. The SMND then states that other issues, including aesthetics "are site-specific by nature, and impacts at one location do not add to impacts at other locations or create additive impacts." SMND at 103. The document provides no evidence to support this statement. The SMND fails to consider the effects of this Project along with other projects in the County (e.g., the County's Winery Events Ordinance currently under consideration). The SMND thus completely ignores the cumulative effects of all the potential development that may take place pursuant to the new zoning provisions and general plan amendments combined with other development. These impacts must be analyzed in an EIR on the Project.

VII. The mitigation proposed by the SMND is inadequate.

Because, as discussed above, the SMND fails to thoroughly examine and analyze the Project's impacts, it also fails to adequately mitigate for the related impacts. Moreover, the SMND relies on insufficient mitigation and fails to consider and adopt all feasible mitigation.

The County cannot approve projects with significant environmental impacts if any feasible mitigation measure or alternative is available that will substantially lessen the severity of any impact. Pub. Res. Code § 21002; CEQA Guidelines § 15126(a). The County is legally required to mitigate or avoid the significant impacts of the projects it

approves whenever it is feasible to do so. Pub. Res. Code § 21002.1(b). An EIR is inadequate if it fails to suggest feasible mitigation measures, or if its suggested mitigation measures are so undefined that it is impossible to evaluate their effectiveness. *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61, 79. Of course, the County may not use the inadequacy of its impacts review to avoid mitigation: “The agency should not be allowed to hide behind its own failure to collect data.” *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 36. Nor may the City use vague mitigation measures to avoid disclosing impacts. *Stanislaus Natural Heritage Project*, 48 Cal.App.4th at 195. Put another way, an EIR must set forth specific mitigation measures or set forth performance standards that such measures would achieve by various, specified approaches. See CEQA Guidelines § 15126.4; see also *Sacramento Old City Assn. v. City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1034; see also *Communities for a Better Environment’ v. City of Richmond* (2010) 184 Cal.App.4th 70, 93-95 (agency may not approve a vague mitigation measure that contains no performance standards and criteria to guide its later implementation). Without performance standards and an explanation of why mitigation cannot be developed now, the SMND cannot insist the impact will be insignificant and defer the development of specific mitigation measures to some future time. Guidelines § 15126.4 (a)(1)(B). The SMND failed to comply with this bedrock CEQA requirement.

“In the case of the adoption of a plan, policy, regulation, or other public project [such as the proposed Code and General Plan amendments], mitigation measures can be incorporated into the plan, policy, regulation, or project design.” CEQA Guidelines § 15126.4(a)(2). Mitigation is defined by CEQA to include “[m]inimizing impacts by limiting the degree or magnitude of the action and its implementation.” CEQA Guidelines § 15370(b). In addition to proposing new “policies” as mitigation, mitigation should include changes in where development is planned, what kind is planned, and how dense or intense that development is planned to be.

Here, there is no indication that the SMND considered additional policies or modifications to the proposed amendments to mitigate the impacts of the Project. For example, as described above, the Project would exacerbate risks from wildfire hazards to existing residents and introduce new hazards in terms of providing inadequate emergency evacuation routes. These increased risks and hazards constitute a significant impact requiring the County to identify feasible mitigation measures and alternatives to minimize them. Instead of fully evaluating the Project’s wildfire-related impacts, the SMND effectively assumes that no such impacts are possible because future applicants will be required to comply with applicable (unspecified) regulations. SMND at 99.

The County incorrectly conflates code compliance with the CEQA process. CEQA directly forbids an assumption, without underlying analysis, that simply complying with a

regulatory standard is adequate to mitigate a potentially significant impact. Under well-established case law, compliance with existing policies and regulations does not excuse the agency from describing project activities or from analyzing resulting impacts. See, e.g., *Californians for Alternatives to Toxics v. Department of Food & Agriculture* (2005) 136 Cal.App.4th 1, 16-17 (compliance with regulation alone not a basis for finding impact less than significant); *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-09 (environmental effect may be significant despite compliance with such requirements). A revised environmental document must identify feasible mitigation measures for such impacts (e.g., limiting the number of cannabis facilities within high fire risk zones, limiting the total number of permits approved, and/or limiting cannabis facilities to areas with access via roads that meet State standards for fire safety).

Concerning Project impacts related to odors, the SMND fares no better. Despite acknowledging that odor impacts from cannabis cultivation sites are potentially significant (SMND at 33 and 34), the SMND provides virtually no analysis of odor impacts from indoor cultivation sites. Instead, as described in detail in section V.D.2 above, the SMND relies on measures requiring odor control filtration and ventilation systems to control odors for indoor cultivation. But because the SMND fails to impose quantifiable performance standards, it fails to provide evidence that the measure will reduce impacts to less-than-significant levels.

For outdoor cultivation sites, the SMND relies on established setbacks to minimize odor impacts and a single mitigation measure that impermissibly defers analysis of odors until after the cultivation permit is approved and implemented. SMND at 35. Buffers and setbacks can be effective ways to minimize odors since distance reduces the strength and concentration of odors through atmospheric dispersion. However, the minimal buffers proposed by the SMND are inadequate to reduce odor impacts to adjacent residents. As shown by cannabis consulting firm Ortech, setbacks of at 3,000 feet or more are necessary to minimize odors from outdoor cannabis cultivation sites. Ortech brochure at 2, attached as Exhibit 26. In fact, many counties (i.e., Napa and Marin) forbid outdoor cultivation recognizing the significant negative impacts on health and safety of residents, citing both odor and crime. Other counties, such as Yolo County, require larger minimum setbacks of 1,000 feet for outdoor cultivation of up to one acre of cultivation.

A revised environmental document must identify feasible mitigation measures for odor impacts, particularly for outdoor cultivation areas (e.g., limit or exclude cannabis cultivation sites adjacent to RR-, AR- and RRD-designated areas of the County; increase setbacks from residential property lines to a minimum of 1,000 feet to 3,000 feet from residences depending on site specific location, topography, and prevailing winds; require cultivation of less odorous plant strains; and/or limiting cultivation to smaller grow

areas). In cases where mitigation efforts of cannabis operators repeatedly fall short of effectiveness (as measured by three or more complaints from neighbors), modification of the operator's cannabis cultivation permit should be required to address the impact. This can include either increasing the setback, relocation of outdoor activities indoors or in a greenhouse or, if odor impacts persist, revoking the permit.

In another example, the SMND acknowledges significant aesthetic impacts related to degradation of existing visual character. SMND at 21 and 22. Here similar to its approach for mitigating odor impacts, the SMND relies on setbacks and screening to minimize impacts to views and visual character. However, the SMND provides no evidence that these measures will be effective to reduce impacts to less than significant levels. Especially for larger indoor facilities that include industrial-sized warehouse buildings, planting vegetation and minimal setbacks are not likely to effectively screen these facilities from public viewpoints.

Compliance with CEQA would involve acknowledging and describing the anticipated effects of the Project. To this end, an EIR must quantify the Project's effects on area residents (including loss of agricultural land, odor and air pollution, transportation impacts, increased wildfire risk, increased noise, and impacts to views) and natural resources (including impacts on water supply, watershed water quality, and on biological resources dependent on water quality) and the efficacy of the proposed mitigation, so that the public and decision makers may reach their own conclusions. *Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99, 130. The current proposal to allow cannabis cultivation sites with ministerial review and minimal setbacks of 100 feet from the property line and 300 feet from the residences of sensitive receptors would result in significant impacts that have neither been adequately analyzed nor adequately mitigated.

VIII. Cannabis is associated with uniquely problematic nuisance conditions and should not be included under the County's Right-to-Farm Ordinance.

The proposed project would amend the General Plan (2020) to redefine agricultural land use as inclusive of cannabis cultivation, thus potentially making commercial cannabis operations subject to the County's Right to Farm Ordinance (Sonoma County Code, ch. 30). In addition, the proposed Chapter 38 lacks the Health and Safety clause that is in the current chapter 26 cannabis ordinance (§ 26.88.250(f)) that forbids commercial cannabis activity from creating a public nuisance or adversely affect the health or safety of the nearby residents. As explained throughout this letter, cannabis is associated with uniquely problematic nuisance conditions and thus should not be defined as, and receive the same protections as, traditional agriculture.

In 2016, the Board of Supervisors found that cannabis should be treated differently from other agriculture because its classification under the Federal Controlled Substances Act. The Board of Supervisors distinguished cannabis from other agriculture because of its “federal classification as a Schedule I drug, the security concerns associated with a high value crop, and the unique characteristics of the cannabis cultivation operations.” December 20, 2016 Board of Supervisors Resolution Approving an Amendment to Uniform Rules 2.0, 4.0, 7.0 and 8.0 of the Sonoma County Uniform Rules for Agricultural Preserves and Farmland Security Zones. See Exhibit 60 Board of Supervisors 2016 Proposed Ordinance. The Resolution cited the FCSA for its classification of cannabis as a Schedule I drug. The Resolution further stated “that excluding cannabis cultivation from the Uniform Rules’ definition of ‘agricultural use,’ is desirable and will appropriately tailor Sonoma County’s agricultural preserve program to meet local, regional, state, and national needs for assuring adequate, healthful and nutritious food for future residences.” *Id.*

Although the SMND states that “the County has since found that despite this federal classification, cannabis cultivation functions similarly to other agricultural operations and that it fits within the plain language and intent of the term ‘agriculture,’” none of the considerations that went into the Board’s 2016 reasoning have changed. Cannabis cultivation is an intensive land use involving odors and energy and other infrastructure demands more similar to industrial uses than to traditional agriculture. *See, e.g.,* Exhibit 4, John W. Bartok, Jr., Cannabis Business Times, Greenhouse Efficiency Guide: 21 Cannabis Greenhouse Design Considerations (describing features like conveyors, heating and hot water boiler systems, fan and louver systems for ventilation, and supplemental lighting requirements). Furthermore, the SMND itself contradicts any finding that cannabis cultivation is “similar” to other agricultural operations.

The SMND concludes that the proposed project would require extensive mitigation in order to reduce cannabis operations’ impact on surrounding agricultural uses. In describing this mitigation, the SMND explicitly differentiates cannabis cultivation from other forms of agriculture. For instance, although agricultural land uses often generate odors, “cannabis cultivation can generate particularly strong odors that adversely affect people.” SMND at 34; *see also id.* at 33 (cannabis cultivation and processing operations “generate distinctive odors” that can be “reminiscent of skunks, rotting lemons, and sulfur.”).

Similarly, although it is common for agricultural operations to include visible structures such as barns and silos, “the updated Ordinance could allow for additional cannabis structures (especially light-reflective greenhouses and hoop houses) that could contrast with the general form, scale, and bulk of other agricultural structures or vegetation in rural areas.” SMND at 22; *see also id.* at 24 (“cannabis cultivation can

cause distinct glare impacts in comparison to typical agricultural practices. Greenhouses and hoop houses used for cannabis cultivation can have highly visible light-reflective materials.”). Cannabis cultivation also involves different energy and hazardous materials practices compared to traditional agriculture. *See* SMND at 48 (describing cannabis’s uniquely significant energy demands); SMND at 62 (describing hazardous components of high-powered lights used in cannabis operations).

Other counties, including Alameda, Humboldt, and Mendocino, have declined to expand the definition of agriculture in their general plans to include cannabis for these very reasons. They also cite the fact that cultivation of cannabis raises health, safety and welfare concerns not raised by other traditional agricultural products. Given the status of cannabis as a controlled substance, which is illegal under federal law, cannabis cultivation involves potential adverse effects that differ from the cultivation of other types of crops (*e.g.*, criminal activity and impacts on children and sensitive populations). State cannabis regulations include a number of development standards and permitting requirements to avoid or mitigate these adverse effects, which are not required for the cultivation of other types of crops on agricultural lands. Cannabis cultivation and cannabis operations are therefore excluded from the State and these counties’ definitions of agriculture.

IX. Conclusion

As set forth above, the Project does not come close to satisfying CEQA’s requirements. The SMND fails to describe the Project and its setting, and fails to provide a complete analysis of Project impacts, cumulative impacts, and feasible mitigation measures. At the same time, ample evidence demonstrates that a fair argument exists that the Project may have significant environmental impacts. In light of this evidence, CEQA requires that an EIR be prepared. For this reason, SOSN respectfully requests that the Project be denied.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Joseph “Seph” Petta



Aaron M. Stanton



Carmen J. Borg, AICP
Urban Planner

Exhibits

1. Letter from Greg Kamman, Senior Ecohydrologist with CBEC Ecoengineering, dated March 16, 2021
2. Borroughs, Vertical Cultivation
3. Thomas Fuller, *'Dead Skunk' Stench from Marijuana Farms Outrages Californians*, New York Times (Dec. 19, 2018)
4. John W. Bartok, Jr., Cannabis Business Times, *Greenhouse Efficiency Guide: 21 Cannabis Greenhouse Design Considerations*
5. Integrated Surface and Groundwater Modeling and Flow Availability Analysis for Restoration Prioritization Planning, Upper Mark West Creek Watershed, Sonoma County, CA (Dec. 2020)
6. Letter from Robert Coey, National Marine Fisheries Service (Feb. 26, 2021)
7. Susanne Rust et al., *How climate change is fueling record-breaking California wildfires, heat and smog*, Los Angeles Times (Sep. 13, 2020)
8. Anne Mulkern, *Fast-Moving California Wildfires Boosted by Climate Change*, Scientific American (Aug. 24, 2020)
9. 2020 Incident Archive, CalFire

10. Sonoma County Agricultural Preservation and Open Space District – Sonoma Complex Fire
11. Sonoma County Agricultural Preservation and Open Space District – Kincade Fire
12. Sonoma County Agricultural Preservation and Open Space District – 2020 Wildfires
13. Tiffany Yap, et al., Center for Biological Diversity, *Built to Burn: California's Wildlands Developments Are Playing With Fire* (Feb. 2021)
14. Discussion Paper: Key Issues and Policy Options, Cannabis Cultivation within Resources and Rural Development (RRD) Lands
15. Harrison, Status of Commercial Marijuana Projects in Bennett Valley, Bennett Valley Voice (January 2021)
16. Thomas Fuller, The New York Times, *'Getting Worse, Not Better': Illegal Pot Market Booming in California Despite Legalization* (Apr. 27, 2019)
17. Joseph Detrano, Rutgers Center of Alcohol & Substance Abuse Studies, *Cannabis Black Market Thrives Despite Legalization*
18. OPR, Technical Advisory: On Evaluating Transportation Impacts in CEQA (December 2018)
19. California Environmental Protection Agency and California Air Resources Board Air Quality and Land Use Handbook: A Community Health Perspective, 2005
20. BAAQMD CEQA Guidelines, excerpts.
21. "Neighbors file federal lawsuit to shut down Sonoma County cannabis grower," Press Democrat, August 31, 2018. [The article is in the dms/pde. Search for Press Democrat.]
22. Resident Letters to Planning Commission (Example letters from residents regarding odor impacts)
23. Yolo County Cannabis Land Use Ordinance EIR Air Quality and Odor chapter excerpts
24. Memo from Trinity Consultants to Yolo County, dated August 17, 2020

25. United States Department of Agriculture Natural Resource Conservation Service (“NRCS”) Publication October 2007- Windbreak Plant Species for Odor Management around Poultry Production Facilities

26. Ortech brochure

27. “What's it Like to Live 100 feet from 15, 000 Cannabis Plants” North Bay Biz, December 4, 2020

28. The Nasal Ranger: A Hobbyist Weed Farm's Worst Enemy

29. Cannabis farms in the US could be causing chronic air pollution, Air Quality News, 19 September, 2019

30. Emissions from cannabis growing facilities may impact indoor and regional air quality, *Science Daily*, 18 September, 2019

31. Growth of legal pot farms drives smog worries, *Science* 25 Jan 2019, Vol. 363, Issue 6425

[32.](#) Rahn, M., N. Bryner, R. Swan, C. Brown, T. Edwards, and G. Broyles, Smoke Exposure and Firefighter Risk in the Wildland Urban Interface (2016) FEMA-FP&S Grant, 2013

33. Airnow, How Smoke from Fires Can Affect Your Health (2018)

34. photo of hoop houses

35. photos of indoor facilities

36. CalFire Fire Sonoma County Hazard Severity Zones December 2020

37. Westerling, A.L., Hidalgo, H.G. Cayan, D.R. and Swetnam, T.W., Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity, 313 *Science* 940 (2006)

38. D. Cayan, A. L. Luers, M. Hanemann, G. Franco, and B. Croes, Scenarios of Climate Change in California: Overview, CEC-500-2005-186-SF (2006)

39. Union of Concerned Scientists, Infographic: Wildfires and Climate Change, September 8, 2020
40. LA Times “How Climate Change is Fueling Record-breaking California Wildfires, Heat and Smog” September 13, 2020
41. Land Use and Wildfire: A Review of Local Interactions and Teleconnections
42. Balch, Jennifer; Bradley, Bethany; Abatzoglou, John, et. al., Human-Started Wildfires Expand the Fire Niche Across the United States, Proceedings of the National Academy of Sciences: Volume 114 No. 11 (March 14, 2017)
43. Letter from Nicole Rinke to Planning Commission on Monterey dated March 20, 2019
44. Texas Wildfire Mitigation Project, How Do Power Lines Cause Wildfires? (2018)
45. California Department of Forestry and Fire Prevention CAL FIRE Investigators Determine Causes of 12 Wildfires in Mendocino, Humboldt, Butte, Sonoma, Lake, and Napa Counties (2018)
46. Pacific Biodiversity Institute, Roads and Wildfires (2007)
47. Letter from Jeff Slaton, Senior Board Counsel for the Board of Forestry and Fire Protection, to the Board of Supervisors, October 23, 2020
48. photos of typical roads leading to existing cannabis cultivation sites
49. Wildland Fire Hazard Areas Map, Public Safety Element, Sonoma County General Plan 2020
50. US Geological Survey, New Post-Wildfire Resource Guide now Available to Help Communities Cope with Flood and Debris Flow Danger (2018)
51. California Department of Conservation, Post-Fire Debris Flow Facts, 2019
52. Draft Mitigated Negative Declaration for UPC19-0002, Gordenker Ranch Cannabis
53. Estimating Adequate Licensed Square Footage for Production, BOTEC Analysis Corporation, 2014.

54. Institute for Applied Ecology, *How additional is the Clean Development Mechanism? Analysis of the application of current tools and proposed alternatives*, March, 2016

55. *Carbon Credits Likely Worthless in Reducing Emissions, Study Says*, Inside Climate News, April 19, 2017

56. *Energy Impacts of Cannabis Cultivation*, Cal. Pub. Utils. Com., April 2017

57. J. Remillard & N. Collins, *Trends and Observations of Energy Use in the Cannabis Industry*, Alliance for an Energy Efficient Economy (2017)

58. ICA map screenshot showing feeder nearest Palmer Creek Road

59. PG&E's instruction manual for ICA maps
same as UU

60. Board of Supervisors 2016 Ordinance

cc: Susan Gorin, Susan.Gorin@sonoma-county.org
David Rabbitt, David.Rabbitt@sonoma-county.org
Greg Carr, Greg.Carr@sonoma-county.org
Cameron Mauritsen, Cameron.Mauritsen@sonoma-county.org
Pamela Davis, Pamela.Davis@sonoma-county.org
Larry Reed, Larry.Reed@sonoma-county.org
Gina Belforte, Gina.Belforte@sonoma-county.org
Lynda Hopkins Lynda.Hopkins@sonoma-county.org
Chris Coursey Chris.Coursey@sonoma-county.org
James Gore District4@sonoma-county.org

EXHIBIT B

San Francisco Office
312 Sutter Street, Suite 402
San Francisco, CA 94108
(415) 543-6771

March 16, 2021

Sonoma County Planning Commission
c/o Permit Sonoma
2550 Ventura Avenue
Santa Rosa, CA 95403-2859

VIA Email PlanningAgency@sonoma-county.org

RE: Cannabis Ordinance Amendments, General Plan Amendment and Mitigated Neg Dec ORD20-0005 - Disallow Cannabis Grows in Community Separators to be consistent with General Plan and Measure K; Require full EIR

Dear Sonoma County Planning Commission and Permit Sonoma,

Greenbelt Alliance urges the Planning Commission and Permit Sonoma to revise the proposed amendments to the Cannabis Ordinance and General Plan to specifically *disallow* cannabis grows in community separators, and/or to conduct a full environmental impact report to analyze and mitigate the impacts to voter-protected community separator lands and across the county. The 53,000 acres of lands designated in community separators are protected in General Plan policies and by the 83 percent of voters who supported Measure K from intensification of development without a vote of the people.

Cannabis grows in community separators were never considered, mentioned, or analyzed in the countywide General Plan, its Environmental Report (draft version 2006, FEIR not on record) or in Measure K. The Mitigated Negative Declaration does not analyze the impacts to community separators or even mention them. Changing the status of cannabis to an agricultural crop, rather than a product, with ministerial permits would open up community separators to a totally new, more intensive use of the lands and without any public notice, review or input.

Of significant concern is that community separators are the closest county lands to cities and towns and therefore neighborhoods, by design, to protect rural character and hold back sprawl. This elevates the potential negative environmental impacts to people living next to community separators compared to other lands. For example, the Buzzard's Gulch property next to the Cloverleaf Ranch for youth is RRD and located inside the Windsor-Larkfield-Santa Rosa Community Separator. In addition to a youth camp, the neighbors include a senior living center and a cancer treatment facility. The proposed ordinance would potentially allow a grow there with a ministerial permit and zero public notice. Voters vehemently objected to a proposed development there in 2020.

Most community separator lands are designated Resource and Rural Development or one of the various agricultural land use designations (LIA, LEA, DA, etc.). Existing agriculture uses were considered

generally consistent with the purpose of community separators. However, cannabis grows are significantly different and a more intense use of the land given the typical use and need for permanent greenhouses, hoop houses with artificial lighting capability, 8' solid security fencing, night and other lighting, structures with an industrial appearance, events, and potentially armed security around the clock.

Given these realities, Greenbelt Alliance urges the Planning Commission to disallow cannabis grows in community separator lands. We also urge you to require a full Environmental Impact Report to consider the negative environmental impacts of cannabis grows in community separators and lands across the county before moving forward on the Cannabis Ordinance and General Plan amendments.

Please see detailed letters from Sonia E. Taylor and Preserve Rural Sonoma County that provide additional comments and rationale for requiring a full EIR under CEQA. Greenbelt Alliance supports



their comments and proposed actions.

Sincerely yours,

Teri Shore, Advocacy Director
tshore@greenbelt.org, 707 934 7081

cc: Sonoma County Board of Supervisors

EXHIBIT C



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



March 17, 2021

Sonoma County Planning Commission
c/o McCall Miller
575 Administration Drive, Suite 104A
Santa Rosa, CA 95403
cannabis@sonoma-county.org

Subject: Sonoma County Cannabis Land Use Ordinance Update and General Plan Amendment, Subsequent Mitigated Negated Declaration, SCH No. 2021020259, Sonoma County, California

Dear McCall Miller:

The California Department of Fish and Wildlife (CDFW) received a draft Subsequent Mitigated Negative Declaration (MND) from the County of Sonoma (County) for the Sonoma County Cannabis Land Use Ordinance Update and General Plan Amendment (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.

CDFW is submitting comments on the MND to inform the County, as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project. CDFW is providing these comments and recommendations regarding those activities involved in the Project that are within CDFW's area of expertise and relevant to its statutory responsibilities (Fish and Game Code, § 1802), and/or which are required to be approved by CDFW (CEQA Guidelines, §§ 15086, 15096 and 15204).

REGULATORY ROLES

CDFW is a Trustee Agency with responsibility under CEQA (Pub. Resources Code, § 21000 et seq.) pursuant to CEQA Guidelines section 15386 for commenting on projects that could impact fish, plant, and wildlife resources. CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as permits issued under the California Endangered Species Act (CESA), the Lake and Streambed Alteration (LSA) Program, and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources. Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under CESA (Fish and Game Code, § 2050 et seq.), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish and Game Code §1900 et seq.) authorization as provided by the applicable Fish and Game Code will be required.

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 2

California Department of Food and Agriculture (CDFA) regulates cannabis cultivation and issues licenses to cultivate. In order to obtain an Annual License to cultivate cannabis, applicants must demonstrate compliance with Fish and Game Code 1602. Additionally, according to the *CDFA Reference Guide for the Applicant Attachments*¹, applicants must demonstrate full compliance with CEQA by conducting project-specific review. The County should ensure that the Cannabis MND appropriately evaluates and covers ministerial cultivation sites to adequately meet CDFA licensing requirements.

Sonoma County Cannabis Ordinance Description

The County proposes to adopt amendments to the County Code, Chapter 26 and new Chapter 38, to allow expanded ministerial permitting for commercial cannabis cultivation in agricultural and resource zoned areas. The County also proposes a general plan amendment to include cannabis within the definition of agriculture. This proposal would expand ministerial permitting of commercial cannabis cultivation in agricultural and resource zoned areas of the unincorporated county (Land Intensive Agriculture (LIA), Land Extensive Agriculture (LEA), Diverse Agriculture (DA), and Resources and Rural Development (RRD) Zoning Districts). It would not include the coastal zone.

Environmental Impacts of Cannabis Cultivation: Introduction

CDFW supports efforts to regulate cannabis cultivation and to address some of its numerous and substantial environmental impacts. CDFW believes that, in concept, providing a ministerial pathway for projects that are unlikely to adversely impact public trust resources will be beneficial to a) avoid and discourage development in sensitive habitats and b) support the legal market. However, Sonoma County has a high density of sensitive species and essential habitat areas. Projects with the potential to impact those areas should have greater regulatory oversight. There are multiple sources available that provide sufficient information for the County to designate areas that should not be considered under the ministerial process and should be required to conduct additional assessments to address sensitive resources and to minimize the environmental impacts of cannabis cultivation. These projects will also likely require additional review and oversight that will allow them to confidently move forward with licensing under the CDFA and compliance with Fish and Game Code, section 1602. As such, CDFW is providing comments on specific species and habitats that should be excluded from the ministerial process unless sufficient information is provided to assure that all impacts to sensitive resources can be avoided. Otherwise, projects should be evaluated on a case-by-case basis in coordination with trustee agencies to develop project specific avoidance and mitigation measures.

¹ <https://www.cdfa.ca.gov/calcanabis/documents/ApplicationAttachmentsReferenceGuide.pdf>

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 3

CDFW devotes a considerable amount of staff time and resources documenting, assessing, permitting, and addressing the environmental impacts and watershed restoration needs resulting from cannabis cultivation (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 forest lands, including impacts from water diversions and stream dewatering, forest clearing and conversion, pollution, and sediment discharges. CDFW staff have conducted inspections on hundreds of cannabis cultivation sites throughout northern California, including Sonoma County, and have published peer-reviewed research on this topic. Therefore, CDFW has considerable experience in assessing the environmental impacts of cannabis cultivation.

Impacts of specific concern to CDFW include, but are not limited to: habitat fragmentation and loss through land clearing, including direct impacts to riparian areas, wetlands, and sensitive natural communities²; grading and burying of streams; diversion of surface water for irrigation resulting in reduced stream flows and dewatered streams; delivery of sediment, nutrients, petroleum products, and pesticides into streams; impacts of night lighting and noise on wildlife; impacts to wildlife from use of plastic monofilament netting and similar products; and pollution to the environment from trash and other cultivation related waste.

COMMENTS AND RECOMMENDATIONS

CDFW offers the below comments and recommendations to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources, including:

Comment 1: Land Use Planning

Issue: The proposed Ordinance update proposes that canopy cover for outdoor cannabis cultivation and hoop houses may be up to a maximum of 10 percent of a parcel. Currently, sites allow a maximum canopy cover of one-acre cannabis cultivation. The proposed changes allow for the potential of substantial cannabis cultivation expansion on parcels, especially in rural agricultural areas with large parcel sizes. Expanded cultivation areas increases the potential for species and habitat impacts. Ministerial review may not adequately account for all impacts and may potentially allow projects to proceed without appropriate disclosure and avoidance, minimization and mitigation requirements. Therefore, it is critical to evaluate landscape level impact potential throughout Sonoma County, taking into consideration current and future conservation planning efforts.

² <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/Background>

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 4

Recommendations: The County should limit cultivation on parcels with the potential to support special-status species and their habitat. The Ordinance should establish a current baseline of permitted cannabis cultivation areas and project where new cannabis cultivation expansion may occur on a map. Geo-spatial analysis should be used at an individual property parcel scale, to exclude ministerial approval of cannabis cultivation within areas with habitat to support special-status species and where special-status species occurrences are documented within the California Natural Diversity Database (CNDDDB). Exclusion area boundaries should be mapped at a parcel scale. In addition, species-specific protective buffer distances should be developed as part of the Project MND to limit activities that can occur adjacent to mapped exclusion areas.

CDFW understands the County is currently within the planning phase of a landscape level Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP) planning effort. Landscape conservation planning takes a proactive approach, identifying priority mitigation and conservation areas in advance of impacts, with the goal of preserving larger areas of higher habitat quality and connectivity (CDFW 2021). The ordinance should adequately review, address, and propose mitigation for Project areas potentially impacting special status species and their habitat in order to facilitate HCP/NCCP planning efforts.

CDFW recognizes the Sonoma County Agricultural and Open Space District (Sonoma County AOSD) has completed a considerable conservation analysis and planning effort in its 2021 Vital Lands Initiative. The Initiative identifies spatially mapped areas of conservation priorities which includes but is not limited to, riparian habitat, wetlands, conifer forests, grasslands, shrublands, hardwood forests, and wildlife habitat for movement (connectivity). Those areas with highest conservation priority can be reasonably expected to have high value of fish and wildlife resources. Cannabis cultivation within those areas of highest conservation priority likely have the greatest potential for significant effects to the environment and fish and wildlife. CDFW encourages the County to incorporate conservation planning efforts by the Sonoma County AOSD into its ordinance to the greatest extent feasible. For proposed cannabis cultivation within areas of highest conservation priority identified by the Sonoma County AOSD, CDFW recommends separate Use Permit and individual CEQA analysis. Alternatively, CDFW supports cultivation prohibition in those areas.

Comment 2: Sec. 38.12.140. Water Use

Issue: CDFW is concerned about the impact of groundwater diversions and their potential to deplete surface water (e.g., rivers and streams) and affect groundwater dependent ecosystems.

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 5

According to the MND, if a well is within 500 feet of a blue line stream, the applicant must document one of three things:

1) Prepare a “net zero water plan”, 2) Document the well is within 500 feet of the Russian River or Dry Creek, or 3) Document the well is within the Groundwater Availability Zone 1 or 2.

The third option implies that significant streamflow depletion is unlikely to occur in Groundwater Availability Zones 1 or 2. However, streamflow depletion can occur within any of the groundwater zones in Sonoma County and is dependent on several hydrogeological factors, including but not limited to: well distance from streams; pumping rate and duration; and soil texture and structure. Therefore, the proposed standards inadequately address the hydrological impacts of groundwater pumping.

Evidence of Impacts: Many Sonoma County tributaries have historically provided sustained perennial flow which supports spring, summer, and fall rearing habitat for naturally producing California freshwater shrimp (*Syncaris pacifica*), Central California Coast coho salmon (*Oncorhynchus kisutch*), California Coastal Chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*Oncorhynchus mykiss*) and other aquatic species. CDFW is concerned available habitat for these species is limited by lack of flow, especially during the summer and early fall periods. The grow season for cannabis cultivation includes summer months (CDFW 2018) during times when stream flows are generally at their lowest (SWRCB 2010). Most Sonoma County fish-bearing tributaries are already subject to large numbers of diversions that are cumulatively affecting the amount of water available for instream habitat. The exact number, location and extent of diversions are unknown. However, in many watersheds, parcels that do not have access to municipal water sources often extract water from the stream either; through direct diversion from the stream or from near stream wells that intercept subterranean stream flow; or from groundwater wells. Groundwater extraction has the potential to impact groundwater dependent resources and reduce streamflow, especially during the late spring and summer months which is a critical time period for the state federally endangered coho salmon and federally threatened steelhead.

The U.S. Geological Survey, in cooperation with the Sonoma County Water Agency, the cities of Cotati, Rohnert Park, Santa Rosa, and Sebastopol, the Town of Windsor, the California American Water Company, and the County of Sonoma, undertook development of a fully coupled groundwater and surface-water model to better understand and to help manage the hydrologic resources in the Santa Rosa Plain watershed (Woolfenden and Nishikawa, 2014). According to modeled result from that report, “increased pumping lowered groundwater levels, causing increased recharge and reduced groundwater evapotranspiration along stream channels, which partially

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 6

mitigated the loss of groundwater storage, but the lower groundwater levels resulted in decreased baseflow, especially during late spring and summer.”

Recommendations: CDFW recommends the County assess the aquatic carrying capacity of watersheds to support cannabis cultivation and propose a limit on density or number of cultivation sites. The focus of the assessment should be to determine the maximum water use availability from watersheds that maintains adequate water supply for fish and wildlife species, considering the cumulative impact of existing and future legal and illegal diversions. Prior to issuing permits for new cultivation sites, the County should prepare the assessment at a watershed scale describing a) existing water use and availability, b) potential for sediment and other pollutant discharge, and c) percentage of habitat fragmentation within a given watershed. Hemp should be incorporated into this analysis since it requires essentially the same cultivation techniques and water use. From CDFW’s perspective, activities causing the same or similar environmental impacts should be reviewed and analyzed with the same rigor. Identified impacts due to hemp cultivation should be avoided, minimized, and/or mitigated. In addition, the analysis should provide detail on the amount of cannabis and hemp cultivation the County proposes to permit within each watershed (e.g., HUC 12 or smaller watershed area), and what impacts the allowed cultivation would have on each of these elements. In order to avoid a concentration of cannabis and hemp cultivation sites in a particular watershed, which could result in potential significant effects, CDFW recommends that prior to issuing permits for new cultivation, the County defines a watershed cap based on an analysis of the impacts to each watershed as described above. Without a defined cap on the number of cultivation sites, analysis of environmental impacts should assume that all parcels meeting zoning criteria could be used for cannabis cultivation. For all cultivation sites, disclosure of the amount of water to be used from each water source, and a current, site-specific analysis of water availability should be required, and the County should reserve the discretion to modify permit conditions. Please note that possession of an active appropriative water right does not guarantee that an adequate water supply is available to support fish and wildlife resources.

Surface water diversions (including subterranean stream flow) are subject to notification under Fish and Game Code 1602. The Ordinance should require projects with surface diversions to comply with 1602 and notify CDFW for all surface diversion activities.

Additionally, CDFW proposes that all near-stream wells (within 500 feet) be evaluated by a qualified professional such as a hydrologist to determine the relationship of surface water interaction and potential for subterranean stream diversion or streamflow depletion. Wells should be evaluated under the CEQA review process to determine their potential for stream water depletion that may adversely affect fish and aquatic life.

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 7

For consistency with the California State Water Resources Control Board (SWRCB) *Cannabis Cultivation Policy – Principals and Guidelines for Cannabis Cultivation*, the Sonoma Ordinance should require a forbearance period from surface diversions and wells in subterranean streams. The intent of forbearance and storage is to require for water to be diverted during the wintertime when water is more abundant so that this stored water can be used in the summertime to meet irrigation demands.

Issue 2: According to page 95 of the Ordinance, cultivators are required to demonstrate adequate water, but the term is not defined.

Recommendation: CDFW recommends outlining the following requirements in the Ordinance for cultivators to demonstrate adequate water supply on their Project site:

- For surface water and sub-stream flow diversions, sufficient off-stream water storage should be demonstrated prior to receiving a County cultivation permit in order to allow full compliance with the SWRCB forbearance periods. To determine the necessary storage, cultivators should be required to calculate how much water is required for each year of cultivation with consideration to expansion over time. In addition, CDFW encourages use of metal or wood water tanks.
- For well diversions, demonstrating adequate water should include technical analysis prepared by a qualified professional showing diversion from the well is limited to ground water only.

Comment 3: California tiger salamander (*Ambystoma californiense*; CTS) Habitat Exclusion from Ministerial Process

Issue: The present range of the Sonoma Distinct Population Segment (DPS) of CTS is predominantly located on the Santa Rosa Plain but according to CNDDB, the present range also include areas outside of Petaluma, Penngrove and Cotati. The draft MND considers cannabis cultivation projects in agricultural zones for the ministerial process unless a Biotic Resources Assessment states otherwise. However, based on the species life history, the Santa Rosa Plain has an enhanced potential for CTS presence and, therefore, should not be considered eligible for the ministerial process.

Evidence of Impacts: CTS is endemic to Central California, with isolated populations in Sonoma and Santa Barbara counties (Bolster 2010, USFWS 2014). CTS relies on seasonal wetlands or freshwater ponds for successful reproduction and adjacent or accessible terrestrial habitat for migration and aestivation, making the quality of both aquatic and terrestrial habitat essential for CTS survival (Bolster 2010). Upland habitats must contain underground refugia, such as mammal burrows, that CTS depend upon for food, shelter, and protection (Laredo et al. 1996). Threats to CTS include habitat

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 8

loss/conversion and fragmentation, including dispersal habitat between breeding pools and upland refugia. CTS spend the majority of their lifecycle underground (Trenham et al. 2000) and are susceptible to being crushed during ground disturbance. CTS is also threatened by competition with and predation from invasive species (USFWS 2017). Introduced species such as bullfrogs and sunfishes have had a negative effect on CTS (Bolster 2010). Larval populations undergo large fluctuations, with most populations containing less than 100 breeding pairs (Pechmann et al. 1991, Bolster 2010). Fluctuating *Ambystoma* populations were found to be susceptible to recruitment failure during stochastic events (Pechmann et al. 1991).

Over the past 25 years, land development has increased dramatically within the Santa Rosa Plain, including low- and high-density land use and agricultural conversion (USFWS 2016). The current core range of Sonoma County CTS encompasses approximately 18,000-20,000 acres of fragmented habitat. The species can migrate up to 1.3 miles between a breeding pond and upland burrows (Orloff 2011). CTS spend approximately 95 percent of their lifetime in underground burrows, emphasizing the importance of protecting potential upland habitat in addition to wetland breeding ponds (Trenham 2001).

Pesticides and fertilizers used in cannabis cultivation could decrease fitness or survival of, or cause abnormalities in, *Ambystoma* species, mostly at the larval stage if contaminants drift into breeding pools (Egea-Serrano et al. 2012). Ponds and vernal pools can quickly accumulate these types of pollutants from run-off, making CTS particularly sensitive to pesticide exposure. Concentrated toxins in rodenticide-treated grain placed in ground squirrel burrows could come into direct contact with the permeable skin of CTS (Bolster 2010). Rodenticides that control small mammal populations would also reduce available burrows, making the habitat no longer suitable for CTS (Laredo et al. 1996). Lack of underground refugia could cause longer migration trips and resulting mortality of CTS as a result of exposure to predators, heat, and other elements (Laredo et al. 1996).

Construction or modification of perennial ponds has been shown to provide breeding habitat for invasive bullfrogs that prey on and compete with sensitive amphibians (Kiesecker et al. 2001, Bolster et al. 2011, Fuller et al. 2011 Kupferberg and Fury 2015). Perennial ponds can also provide suitable habitat for non-native tiger salamander and hybrids.

Grading and filling of habitat can result in crushing CTS, collapsing underground burrows and trapping CTS within, and reducing or fragmenting breeding or non-breeding habitat.

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 9

Roads can result in amphibian mortality and fragment habitat as well as create barriers to movement (Trombulak and Frissell 2000). Off-road vehicles can crush and reduce burrow density and alter wetland habitat.

Artificial lighting can disrupt the production of melatonin in *Ambystoma* salamanders if they are exposed to it, altering metabolic rates and reducing tolerance to high temperatures (Perry et al. 2008). Additionally, *Ambystoma* salamanders could miss the cue to migrate if there is artificial light, which could affect breeding.

Recommendations: Please be advised that actions related to cannabis cultivation activities, including but not limited to, site grading, relocation of individuals out of harm's way, and installation of fencing could result in "take" of CTS (or other listed species). A CESA Incidental Take Permit (ITP) (pursuant to Fish and Game Code Section 2080 et seq.) is required in advance of such activities in order to lawfully take this species. A CESA ITP requires CEQA documentation and the proposed MND does not adequately address impacts to CTS or provide for mitigation to reduce the impact to less-than-significant and therefore, CDFW would be unable to rely on the MND to issue an ITP. CDFW recommends excluding any project within the Santa Rosa Plain and within 1.3 miles of an extant positive occurrence of CTS from the ministerial process. New or expanded cannabis cultivation within the Santa Rosa Plain should be thoroughly assessed through a separate Use Permit and individual CEQA analysis. Additionally, sites outside of the Santa Rosa Plain with the potential for CTS occurrence (e.g., rural Southwest Petaluma, and areas east of Penngrove and Cotati) should be delineated and excluded from the ministerial process.

Due to the presence of contiguous suitable habitat features and migration potential throughout the Santa Rosa Plain, it is vital to protect this habitat to allow for recovery of the species. This should be accomplished by ensuring adequate avoidance, minimization, and mitigation measures are required through individual CEQA review and document preparation. Site analyses should take into consideration species life stage history, proximity to critically designated habitat, and potential habitat availability on each Project site. Project activities evaluated to have any risk of CTS occurrence should apply for take coverage through the applicable state and federal agencies.

Comment 4: Sec. 38.12.070 Protection of Biotic Resources

The following describes the proposed MND language when evaluating Biotic Resource impacts:

"If the cannabis cultivation area and related structures and development are located within a designated critical habitat area, then one of the following criteria must be met:

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 10

- a. *The biotic assessment concludes that “take” of a listed species within the meaning of the federal and California Endangered Species Acts is not reasonably foreseeable; or*
- b. *Applicant obtains all appropriate permits from the applicable state and federal agencies with jurisdiction over the listed species.”*

Issues: The Ordinance states that projects located within “the limits of existing agricultural land, or other previously disturbed areas would be unlikely to affect sensitive biological resources.” However, the concept of “previously developed” within an agricultural use perspective is not defined. Some agricultural land uses provide species habitat and/or allow for species migration.

Additionally, the proposed process does not incorporate CDFW when reviewing the Biotic Resources assessment in determining whether there are potential species impacts on a site. CDFW is concerned with not being included in the review process to provide feedback and/or comments on the Biotic Resources Assessments prior to determining if a project may impact sensitive or special-status species.

Projects requiring off-site habitat restoration and/or mitigation are ineligible for CEQA exemption and must be addressed in an environmental review document. CDFW has limited staffing and resources to act as the lead agency in these situations, therefore it is important that the County identifies projects potentially requiring off-site mitigation and/or restoration and removes these from the ministerial process.

Evidence of Impacts: Row crops, orchards, and vineyards can provide some level of habitat by fish and wildlife resources, including acting as species migratory corridors. As an example, CDFW is aware of a least one instance of CTS pit fall traps that collected adult CTS at the edge of a vineyard. This suggests that CTS migrate through and may use vineyard soil for estivation habitat if suitable burrows are present. Converting vineyards, or other agricultural use, may potentially create migration barriers or have direct impacts to CTS. CDFW regularly observes fencing, grading and fill to native soils, hardscaped and graveled pads, imported soils potentially containing pathogens and extensive infrastructure during inspections to cannabis cultivation sites. CDFW has significant experience participating in and leading survey efforts for the purpose of studying species habitat use. This has enhanced CDFW’s understanding of species habitat utilization throughout the state, including landscape throughout Sonoma County.

Recommendations: The County should clearly outline the definition of “previously developed” in the Ordinance. Additionally, the County should thoroughly consider and review all potential biological impacts on a site, even if it is fully within previously developed agricultural land. Biological Resources Assessments should consider

Sonoma County Planning Commission
 c/o McCall Miller
 March 17, 2021
 Page 11

impacts to existing land uses from changes in site conditions when evaluating whether there is habitat potential on a site.

CDFW would like the opportunity to review existing and proposed cultivation sites for potential impacts to sensitive natural resources. To assist in ensuring effective, efficient and timely review, applicants should initiate the permitting process with the County, and the County should refer projects to CDFW, similar to existing procedures for other project referrals. By applying to the County first, applicants would be provided with a permit tracking number to reference, and contacts with CDFW could be handled more efficiently with a complete application. Therefore, the Ordinance should be revised to reflect that applications and Biotic Resource Assessments will be referred to CDFW after submission to the County. The Biotic Resource Assessment should evaluate all species habitat potential, including Species of Special Concern. Sites with potential to impact special-status species, including Species of Special Concern, should not qualify for ministerial review and should apply for a Use Permit.

In such cases where take of a special-status species is determined to be likely, early consultation with CDFW is encouraged because significant modification to a subsequent project activity and mitigation measures, and an additional CEQA environmental document, may be required. Additionally, take of species listed under the Federal Endangered Species Act would require a separate authorization from the USFWS and/or National Marine Fisheries Service.

Comment 5: Riparian/Wetlands Setbacks

Issue: The Cannabis Ordinance references following riparian and wetland buffer requirements in Sonoma County Code: Section 36-16-120 of Chapter 36, Section 11-14-110 of Chapter 11, and Section 26-65-040. These setbacks are not consistent with state requirements (e.g., SWRCB's *Cannabis Cultivation Policy – Principals and Guidelines for Cannabis Cultivation*³). For instance, Section 26-65-040 has a minimum standard of a 25-foot setback to riparian areas. The SWRCB Cannabis Policy has a standard of 50-foot minimum buffer for ephemeral watercourses.

Given the unknown variability of site-specific cannabis activities, CDFW is concerned that the proposed setbacks may not be enough to conclude no adverse effects on any special-status fish. The setbacks may not adequately prevent deleterious materials, including wastewater discharge and other pollutants, from entering wetlands and/or streams. Undesignated wetlands, as discussed above, are defined as “any wetlands not designated in the general plan, local coastal program or zoning code”. Requirements for wetland setbacks should be held to the same rigorous standard for all wetlands,

³ https://www.waterboards.ca.gov/water_issues/programs/cannabis/docs/policy/final_cannabis_policy_with_attach_a.pdf

Sonoma County Planning Commission
 c/o McCall Miller
 March 17, 2021
 Page 12

including vernal pools, regardless of whether they are defined in the general plan, local coastal plan, or zoning code.

Evidence of Impacts: Wastewater discharge and runoff from cannabis activities, especially water containing pesticides, disinfectants, and/or fertilizers, may enter and alter existing streams or their function and associated riparian habitat on the Project site. Wetlands that are hydrologically connected to surface water may transport pollutants and waste material associated with cannabis cultivation.

Riparian buffers help keep pollutants from entering adjacent waters through a combination of processes including dilution, sequestration by plants and microbes, biodegradation, chemical degradation, volatilization, and entrapment within soil particles. As buffer width increases, the effectiveness of removing pollutants from surface water runoff increases (Castelle et al. 1992). There is substantial evidence showing narrow buffers are considerably less effective in minimizing the effects of adjacent development than wider buffers (Castelle et al. 1992, Brosofske et al. 1997, Dong et al. 1998, Kiffney et al. 2003, Moore et al. 2005).

Recommendations: Riparian and wetland setbacks should be as protective as or more protective than the SWRCB's *Cannabis Cultivation Policy – Principals and Guidelines for Cannabis Cultivation* requirements that require the following:

Common Name	Watercourse Class	Distance
Perennial watercourses, waterbodies (e.g., lakes, ponds), or springs	I	150 ft.
Intermittent watercourses or wetlands	II	100 ft.
Ephemeral watercourses	III	50 ft.
Man-made irrigation canals, water supply reservoirs, or hydroelectric canals that support native aquatic species	IV	Established Riparian Vegetation Zone
All other man-made irrigation canals, water supply reservoirs, or hydroelectric canals	IV	N/A

The County should evaluate each cultivation site individually and reserve the right to require greater setbacks in some cases.

Additionally, all sites should be evaluated for potential wetland features within the required Biological Resources Assessment. Sites with signs of wetland features should

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 13

be delineated by a Qualified Professional to determine the appropriate setback distances from constructed areas. The draft requirements do not specifically request a delineation be completed for all wetland types.

Comment 6: Tree Removal and Disturbance

Issue: The updated Ordinance prohibits the removal of protected trees greater than nine inches at diameter breast height (dbh) and any tree greater than 20 inches dbh. The Ordinance update also includes the following language regarding tree removal:

“If the biotic assessment required by the updated cannabis land use Ordinance determines that construction may impact protected trees, the project applicant shall procure all necessary tree removal permits as required by County Code Chapter 26D. A tree protection and replacement plan shall be developed by a certified arborist.”

This language only indicates that protected trees planned for removal will be considered for replacement. Based on the above, trees less than 20 inches in diameter that are not protected would not require replacement. Both native and non-native trees provide nesting habitat for birds, and habitat value for other wildlife. In particular, removal of large trees without adequate mitigation should be considered a substantial adverse change in the physical conditions within the area affected by the Project. CDFW concurs that individual trees should be protected and mitigated; however, CDFW is concerned that the measure does not take into full consideration impacts to habitat such as loss of oak woodlands or account for understory botanical species. Although CDFW acknowledges the nature of the MND, without proper disclosure or analysis, the Project may result in impacts to native trees that support rare, sensitive, or listed species. Additionally, future cannabis site construction and operations, including grading and irrigation, may cause direct mortality or affect the function and value of native trees and their associated habitat.

Recommendations: CDFW recommends that the MND add criteria that the County can use to determine whether any cultivation project requires site-specific CEQA review and does not meet the criteria for a ministerial process, such as impacts to trees. Disclosure through the CEQA process will assist the County in identifying significance of impacts and appropriate mitigation measures.

CDFW recommends the Project avoid large diameter tree removal (e.g., 15-inches and greater), prohibit loss of oak woodlands and conversion of timberland, and avoid special-status botanical resources. On-site tree replacement should be considered as a potential impact minimization measure, but not sufficient to completely offset temporal impacts from loss of large mature trees. CDFW recommends Project mitigation from loss of large trees on-site, and potentially should include off-site preservation of trees in

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 14

perpetuity. Additionally, any on-site tree protection and replacement plans should include specific tree and understory performance criteria, with monitoring and management of the replaced trees.

Comment 7: Nesting Birds

Issue: The MND acknowledges that trees may be removed for project activities yet does not include minimization or avoidance measures addressing impacts to nesting birds from Project disturbance or tree removal.

Evidence of Impacts: The Project may result in population declines or local extirpation of special-status birds, disturbance to migratory birds, habitat loss and fragmentation, and reduced reproductive capacity. Grading, vegetation removal, and other ground disturbances could result in direct mortality, disturbance to breeding behavior, or nest abandonment. All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. § 10.13). Sections 3503, 3503.5 and 3513 of the Fish and Game Code prohibit take of birds and their active nests, including raptors and other migratory nongame birds as listed under the MBTA. Project implementation allows cannabis activities that may directly impact, or indirectly through habitat modifications, native bird species, which would be considered significant.

Recommendations: To evaluate and avoid for potential impacts to nesting bird species, CDFW recommends incorporating the following mitigation measures into the Project's MND, and that these measures be made conditions of approval for the Project:

CDFW recommends that the following protective measures be included in the MND:

1. **Nesting Bird Surveys:** If Project-related work is scheduled during the nesting season (typically February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), CDFW recommends that a qualified biologist conduct two surveys for active nests of such birds within 14 days prior to the beginning of Project construction, with a final survey conducted within 48 hours prior to construction. Appropriate minimum survey radii surrounding the work area are typically the following: i) 250 feet for passerines; ii) 500 feet for small raptors such as accipiters; and iii) 1,000 feet for larger raptors such as buteos. Surveys should be conducted at the appropriate times of day and during appropriate nesting times.
2. **Active Nest Buffers:** If the qualified biologist documents active nests within the Project area or in nearby surrounding areas, a species appropriate buffer between the nest and active construction should be established. The buffer

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 15

should be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist should conduct baseline monitoring of the nest to characterize “normal” bird behavior and establish a buffer distance which allows the birds to exhibit normal behavior. The qualified biologist should monitor the nesting birds daily during construction activities and increase the buffer if the birds show signs of unusual or distressed behavior (e.g., defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist should have the authority to cease all construction work in the area until the young have fledged, and the nest is no longer active.

Comment 8: Light Pollution

Issue: The Project would generate sources of light in rural areas, near wildlands, and near sensitive natural vegetation communities, including permanent lighting from additional buildings or greenhouses, security lighting, and temporary lighting for proposed nighttime construction. The draft MND does not discuss the type or color of lighting that will be used outdoor, i.e., bright security lighting along the perimeter, white light, blue light, etc.

The MND states that it will revise the nighttime lighting requirement to be used only for security reasons. However, the MND does not include measures stating how nighttime lighting would be reduced. CDFW acknowledges and agrees with the ordinance requirement for shielded, downward facing nighttime lighting to reduce lighting spillover onto adjacent properties. In addition to lighting impacts on neighboring areas, artificial lighting and light pollution may cause significant impacts to rare, threatened, endangered, and nocturnal wildlife and migratory birds. Light pollution impacts can disrupt routine behavior of the species life cycle, degrade the quality of the environment utilized by said species and can substantially reduce the number of individuals. The MND does not fully analyze the biological impacts of lighting on wildlife species.

Evidence of Impacts: Sensitive species, wildlife, and their habitats may be adversely affected by increased and artificial night lighting, even temporarily due to night construction activities. Light plays a vital role in ecosystems by functioning as both an energy and an information source (Gaston et al. 2012, 2013). The addition of artificial light into a landscape disrupts this role, altering the natural circadian, lunar, and seasonal cycles under which species have evolved. Artificial lights result in direct illumination, altering the natural patterns of light and dark, and sky glow (i.e., scattered light in the atmosphere), which can extend the ecological impacts of light far beyond the light source (Longcore and Rich 2004). On cloudy nights in urban areas, for example, the sky glow effect can be of an equivalent or greater magnitude than high-elevation

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 16

summer moonlight (Kyba et al. 2013). The addition of artificial light into a landscape can impact a broad range of system processes, including:

- Activity patterns
- Availability and detectability of food resources
- Movement, navigation and migration
- The timing of phenological events
- Physiological functions
- Foraging behavior and predator-prey interactions
- Phototaxis (attraction and movement towards light)
- Circadian rhythms (both physiological and behavioral)
- Causing disorientation, entrapment, and temporary blindness

Recommendations: CDFW recommends the following set of criteria of types of lighting that may be used on-site:

- In addition to facing lights downward, lights should be motion-activated, or turned off or dimmed during critical times of the year (e.g., migration) and during times of night that have the most significant impact on wildlife (i.e., dawn and dusk) (Gaston et al., 2012, 2013).
- Lights with wildlife-friendly spectral composition (i.e., minimize light avoidance/attraction) should be used (Gaston et al. 2012, 2013). LED lights are well suited for operating at variable brightness and being switched off or dimmed during certain times of the year or during times of low demand, as they operate at full efficiency and have no “warm-up” time (Gaston et al., 2012, 2013).
 - Vegetation may also be used to shield sensitive areas against light, and light-absorbent surfaces can be used in place of reflective surfaces (Gaston et al., 2012, 2013).
- All lights should be disposed of properly, as many contain mercury and other toxins.
- Hoop-houses and other grow facilities that use lighting (e.g., light deprivation) should be required to be completely covered at night from sunset to sunrise.

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 17

Comment 9: Fencing Hazards

Issue: The Project may result in the use of open pipes used as fence posts, property line stakes, signs, etc.

Evidence of Impacts: Raptor's talons can become entrapped within the bolt holes of metal fence stakes resulting in mortality. Further information on this subject may be found at: <https://ca.audubon.org/conservation/protect-birds-danger-open-pipes>.

Recommendations: CDFW recommends that all hollow posts and pipes be capped to prevent wildlife entrapment and mortality because these structures mimic the natural cavities preferred by various bird species and other wildlife for shelter, nesting, and roosting. Metal fence stakes used on the Project site should be plugged with bolts or other plugging materials to avoid this hazard.

Comment 10: Monofilament Plastic Netting Prohibition

Issue: Monofilament plastic netting is commonly used as trellising on cannabis plants. This plastic netting can be harmful as wildlife can become entangled and/or trapped. This topic is not considered or evaluated within the MND.

Evidence of Impacts: Plastic netting used in these products has been found to entangle many different species of wildlife, including reptiles, amphibians, birds, and small mammals. CDFW has documented wildlife mortality related to monofilament including to raptor and mammal species. Snake entrapment is of particular concern, as there have been numerous reports of snake injury and mortality due to entanglement in plastic netting used in temporary erosion and sediment control products (Rich et al 2020). Additionally, plastic materials persist in the environment for years before breaking down into smaller fragments. When plastic fragments break down, these smaller fragments or microplastics often blow away or wash materials into waterways and habitat areas.

Recommendations: The Ordinance should prohibit use of monofilament plastic netting and identify comparable materials that may be allowed that are less harmful to fish and wildlife. Allowable alternatives may include bio-degradable material, such as jute and coir (coconut husk fibers) in both erosion control measures and trellising materials.

Comment 11: Sec. 38.16.030. – Authority for Enforcement

CDFW views this Ordinance/MND update as an opportunity to provide gratitude and support for the ongoing enforcement County Code Enforcement has taken to suppress illicit cannabis cultivation while supporting the legal market. CDFW staff has first-hand experience working with county enforcement staff and commends them on their work.

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 18

As always, there is more work to be done in this area and we encourage the ongoing and continued work.

CDFW enforcement staff have partnered with the County on enforcement cases. As an example, we have documented instances in the Santa Rosa Plain where past and current cultivation has occurred, usually by impacting upland grassland habitat, thereby impacting CTS. We would like to see our ongoing partnership evolve to restore, remediate, and mitigate impacts that have already occurred to special-status species habitat as a result of illegal cannabis cultivation, such as to CTS in the Santa Rosa Plain.

The Ordinance update indicates that the Agricultural Commissioner is responsible for conducting enforcement inspections and to determine any subsequent enforcement actions due to activities violating the provisions of the Ordinance. To maintain an active site monitoring and compliance effort for permitted cultivation operations, CDFW recommends that the County ensure adequate funding and personnel are available to assist with conducting inspections as needed.

ENVIRONMENTAL DATA

CEQA requires that information developed in draft environmental impact reports and negative declarations be incorporated into a data base which may be used to make subsequent or supplemental environmental determinations. [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form, online field survey form, and contact information for CNDDDB staff can be found at the following link: <https://wildlife.ca.gov/data/CNDDDB/submitting-data>. The types of information reported to CNDDDB can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs., tit. 14, § 753.5; Fish and Game Code, § 711.4; Pub. Resources Code, § 21089).


CONCLUSION

CDFW supports efforts to regulate cannabis cultivation and to address the numerous and substantial environmental impacts. We believe that greater regulatory oversight and enforcement by local Lead Agencies can help minimize the environmental impacts of

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 19

cannabis cultivation. CDFW appreciates the opportunity to comment on the MND to assist the County in identifying and mitigating Project impacts on biological resources. If you have any questions, please contact Ms. Mia Bianchi, Environmental Scientist, at Mia.Bianchi@wildlife.ca.gov; or Mr. Wes Stokes, Senior Environmental Scientist (Supervisory), at Wesley.Stokes@wildlife.ca.gov.

Sincerely,

DocuSigned by:

BE74D4C93C604EA...
Gregg Erickson
Regional Manager
Bay Delta Region

cc: **California Department of Fish and Wildlife**

Craig J. Weightman, Craig.Weightman@wildlife.ca.gov
Greg Martinelli, Greg.Martinelli@wildlife.ca.gov
Corinne Gray, Corinne.Gray@wildlife.ca.gov
Tim Dodson, Timothy.Dodson@wildlife.ca.gov
Stephanie Holstege, Stephanie.Holstege@wildlife.ca.gov
Melanie Day, Melanie.Day@wildlife.ca.gov
Stacy Martinelli, Stacy.Martinelli@wildlife.ca.gov
Mary Olswang, Mary.Olswang@wildlife.ca.gov
Lt. Douglas Willson, Douglas.Willson@wildlife.ca.gov
Jennifer Nguyen, Jennifer.Nguyen@wildlife.ca.gov
Ryan Mathis, Ryan.Mathis@wildlife.ca.gov
James Rosauer, James.Rosauer@wildlife.ca.gov

State Water Resources Control Board

Taro Murano, taro.murano@Waterboards.ca.gov
Stormer Feiler, stormer.feiler@waterboards.ca.gov
Jonathan Pham, Jonathan.Pham@Waterboards.ca.gov
Zackary Zwahlen, Zachary.Zwahlen@Waterboards.ca.gov
Samuel Warner, Samuel.Warner@Waterboards.ca.gov

North Coast Regional Water Quality Control Board

David Kuszmar, David.Kuszmar@waterboards.ca.gov
Kason Grady, Kason.grady@waterboards.ca.gov

California Department of Food and Agriculture

Michael Vella, michael.vella@cdfa.ca.gov
Lindsay Rains, lindsay.rains@cdfa.ca.gov

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 20

California Department of Forestry and Fire Protection

Kim Sone, Kim.Sone@fire.ca.gov

NOAA Fisheries

Rick Rogers, rick.rogers@noaa.gov

Sonoma County Permit and Resource Management Department

Scott Orr, scott.orr@sonoma-county.org

REFERENCES

- Bauer, S., J. Olson, A. Cockrill, M. van Hatten, L. Miller, M. Tauzer, G. Leppig. 2015. Impacts of Surface Water Diversions for Marijuana Cultivation on Aquatic Habitat in Four Northwestern California Watersheds. PLoS ONE 10(3):e0120016. Doi:10.1371/journal.pone.0120016
- Bolster, B. C. 2010. A status review of the California tiger salamander (*Ambystoma californiense*). A Report to the Fish and Game Commission, Nongame Wildlife Program Report 2010-4, California Department of Fish and Game, Sacramento, CA, USA.
- Brosfokske, K.D., J. Chen, R.J. Naiman, and J.F. Franklin. 1997. Harvesting effects on microclimatic gradients from small streams to uplands in western Washington. Ecological Applications 7:1188-1200.
- Brühl, C. A., T. Schmidt, S. Pieper, and A. Alscher. 2013. Terrestrial pesticide exposure of amphibians: An underestimated cause of global decline? Scientific Reports 3:1–4.
- California Department of Fish and Wildlife. 2018. A review of potential impacts of cannabis cultivation on fish and wildlife resources.
- California Department of Fish and Wildlife. 2021. Landscape conservation planning webpage. Accessed March 2021. <https://wildlife.ca.gov/Conservation/Planning>
- Castelle, A.J., C. Conolly, M. Emers, E.D. Metz, S. Meyer, M. Witter, S. Mauermann, T. Erickson, S.S. Cooke. 1992. Wetlands buffers use and effectiveness. Adolfson Associates, Inc., Shorelands and Coastal Zone Management Program, Washington Department of Ecology, Olympia, WA. Pub. No. 92-10.
- Dong, J., J. Chen, Brosfokske, K.D., and R.J. Naiman, 1998. Modeling air temperature gradients across managed small streams in western Washington. Journal of Environmental Management 53:309-321.

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 21

- Egea-Serrano, A., R. A. Relyea, M. Tejedo, and M. Torralva. 2012. Understanding of the impact of chemicals on amphibians: A meta-analytic review. *Ecology and Evolution* 2:1382–1397.
- Fuller, T. E., K. L. Pope, D. T. Ashton, and H. H. Welsh. 2011. Linking the distribution of an invasive amphibian (*Rana catesbeiana*) to habitat conditions in a managed river system in northern California. *Restoration Ecology* 19:204–213.
- Kiffney, P.M., J.S. Richardson, and J.P. Bull. 2003. Responses of periphyton and insects to experimental manipulation of riparian buffer width along forest streams. *Journal of Applied Ecology* 40:1060-1076.
- Kyba, C. C., & Hölker, F. (2013). Do artificially illuminated skies affect biodiversity in nocturnal landscapes?
- Gaston, K. J., Davies, T. W., Bennie, J., & Hopkins, J. (2012). Reducing the ecological consequences of night-time light pollution: options and developments. *Journal of Applied Ecology*, 49(6), 1256-1266.
- Gaston, K. J., Bennie, J., Davies, T. W., & Hopkins, J. (2013). The ecological impacts of nighttime light pollution: a mechanistic appraisal. *Biological reviews*, 88(4), 912-927.
- Kiesecker, J. M., and A. R. Blaustein. 1998. Effects of introduced bullfrogs and smallmouth bass on microhabitat use, growth, and survival of native red-legged frogs (*Rana aurora*). *Conservation Biology* 12:776–787.
- Kiesecker, J. M., A. R. Blaustein, and C. L. Miller. 2001. Potential mechanisms underlying the displacement of native red-legged frogs by introduced bullfrogs. *Ecology* 82:1964–1970.
- Kupferberg, S. J. 1997. Bullfrog (*Rana catesbeiana*) invasion of a California river: the role of larval competition. *Ecology* 78:1736–1751.
- Laredo, I., D. Van Vuren, and M. L. Morrison. 1996. Habitat use and migration behavior of the California tiger salamander. *Journal of Herpetology* 30:282–285.
- Longcore, T., & Rich, C. (2004). Ecological light pollution. *Frontiers in Ecology and the Environment*, 2(4), 191-198.
- Moore, R.D., D.L. Spittlehouse, and A. Story. 2005. Riparian microclimate and stream temperature response to forest harvesting: a review. *Journal of the American Water Resources Association* 41:813-834.

Sonoma County Planning Commission
c/o McCall Miller
March 17, 2021
Page 22

Orloff, S.G., 2011. Movement patterns and migration distances in an upland population of California tiger salamander (*Ambystoma californiense*). *Herpetological Conservation and Biology*, 6(2), pp.266-276.

Pechmann, J. H., D. E. Scott, R. D. Semlitsch, J. P. Caldwell, L. J. Vitt, and J. W. Gibbons. 1991. Declining amphibian populations: the problem of separating human impacts from natural fluctuations. *Science* 253:892–895.

Perry, G., B. W. Buchanan, M. Salmon, and S. E. Wise. 2008. Effects of night lighting on urban reptiles and amphibians in urban environments. Pages 239–256 *in* J. C. Mitchell, R. E. Jung Brown, and B. Bartholomew, editors. *Urban Herpetology*. Society for the Study of Amphibians and Reptiles, Salt Lake City, UT, USA.

Relyea, R. A., and N. Diecks. 2008. An unforeseen chain of events: lethal effects of pesticides on frogs at sublethal concentrations. *Ecological Applications* 18:1728–1742.

Rich, Lindsey & Mantor, Margaret & Ferguson, Erin & Chappell, Erin & Baker, Ange. (2020). Potential impacts of plastic from cannabis cultivation on fish and wildlife resources. *California Fish and Game*. 106. 121-131.

State Water Resource Control Board. 2010. Policy for maintaining instream flows in northern California coastal streams.

State Water Resource Control Board. 2017. Cannabis cultivation policy. Principles and guidelines for cannabis cultivation.

Trenham, P. 2001. Terrestrial Habitat Use by Adult California Tiger Salamanders. *Journal of Herpetology*. 35(2), 343–346. [doi:10.2307/1566130](https://doi.org/10.2307/1566130). [JSTOR 1566130](https://www.jstor.org/stable/1566130).

U.S. Fish and Wildlife Service. 2016. Recovery Plan for the Santa Rosa Plain: *Blennosperma bakeri* (*Sonoma sunshine*); *Lasthenia burkei* (*Burke's goldfields*); *Limnanthes vinculans* (*Sebastopol meadowfoam*); California Tiger Salamander Sonoma County Distinct Population Segment (*Ambystoma californiense*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. vi + 128 pp.

Woolfenden, L.R., and Nishikawa, Tracy, eds., 2014, Simulation of groundwater and surface water resources of the Santa Rosa Plain watershed, Sonoma County, California: U.S. Geological Survey Scientific Investigations Report 2014–5052, 258 p., <http://dx.doi.org/10.3133/sir20145052>