

Elections Code Section 9111 Report Regarding the Napa County Cannabis Regulation Initiative

Prepared for



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Elections Code Section 9111 Report

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I. Executive Summary

On July 23, 2019, the Napa County Board of Supervisors (“Board”) ordered preparation of this report pursuant to Elections Code Section 9111 to analyze the land use, environmental, fiscal and other impacts of the Napa County Cannabis Regulation Initiative (“the Initiative”).

Section II of this report introduces the Initiative and identifies the impacts identified by Elections Code Section 9111 and by the Board at its July 23 meeting. Section III summarizes the Initiative, which proposes to revise the County’s definition of “agriculture” to include commercial cannabis cultivation, require the County to allow as a matter of right or permit commercial cannabis businesses within the unincorporated parts of the County, define and limit the regulations applicable to those activities, impose a tax on commercial cannabis activities within the County, and limit the County’s ability to enact future changes to its commercial cannabis regulations, among other provisions. A more detailed description of the Initiative provisions can be found in *Appendix A: Detailed Description of Napa Cannabis Initiative*.

Sections IV-VIII analyze the Initiative’s potential land use, economic, environmental, social/cultural, and fiscal impacts. The scope and location of these impacts depend on the choices of private third parties regarding where and how much cannabis to cultivate. Section IV estimates the number of each type of cannabis business that likely would locate in the County. The analysis estimates that the Initiative would result in commercial cannabis cultivation ranging between the amount of cultivation that is actively licensed in neighboring Sonoma County (50 licenses) and the cultivation currently proposed in Sonoma County for outdoor cultivation (approximately 100 licenses). The analysis identifies several reasons why the higher estimate of 100 cannabis cultivation licenses may be the better predictor in Napa County. It is common in the State for cultivators to hold multiple licenses on a single property, so the 50 to 100 licenses likely would apply to a range of 32 to 64 separate parcels, resulting in up to 32 to 64 acres of new commercial cannabis cultivation in Napa County, as well as new accessory cannabis processing.

Section V analyzes the economic impacts of this new commercial cannabis cultivation, including its direct impacts on the wine industry, through impacts to the labor force, potential competition with a higher value crop, and impacts on wine tourism. Among other measures, Section V explains that commercial cannabis cultivation could negatively impact Napa County’s \$2.2 billion tourism industry through adverse odor and visual impacts on wineries, restaurants, resorts, and lodging facilities in both incorporated and unincorporated areas of the county. The Initiative imposes no odor controls on commercial cannabis cultivation, and imposes no setbacks from wineries, restaurants, resorts, or lodging facilities.

Section VI analyzes the Initiative’s environmental impacts, particularly with regard to groundwater use and odors. Section VI explains that the anticipated new acres of cannabis cultivation could result in new water demands of up to 108.16 to 216.32 acre-feet per year, potentially impacting the Napa Valley Subbasin and individual aquifer systems on the valley floor. Section VI also details the potential odor impacts of commercial cannabis cultivation, and the adverse experiences of Santa Barbara County.

Section VII analyzes the Initiative’s social and cultural impacts, including impacts on the County character and appellation, and visual impacts from cannabis activities and hoop structures. Section VII also analyzes impacts related to crime and the cannabis illegal market, and impacts on public health and

youth under 25.

Section VIII analyzes the fiscal impacts of the Initiative. Section VIII first analyzes potential impacts on County costs and services, including the Sheriff's Office and code enforcement staff, and potential reductions in TOT revenue. Section VIII then analyzes potential new revenue to the County revenues through cannabis taxes and other sources.

This report includes multiple appendices, with more detailed information about the Initiative and its consistency with the County's General Plan and zoning. Appendix G is a map showing the parcels in Napa County that are potentially available for cannabis cultivation, given the setbacks and other requirements of the Initiative.

II. Introduction

At its July 23, 2019 meeting, the Napa County Board of Supervisors received the Registrar of Voters' certification of sufficiency for a citizens' petition titled the Napa County Cannabis Regulation Initiative ("the Initiative"). Among other provisions, the Initiative would revise the County's definition of "agriculture" to include commercial cannabis cultivation, require the County to allow as a matter of right or permit commercial cannabis businesses within the unincorporated parts of the County, and impose a tax on commercial cannabis activity within the County. Tax rates would be \$1 per square foot of canopy for outdoor cultivation, \$2 per square foot for mixed-light cultivation, and 3.5% of gross receipts for all other commercial cannabis activities.

Upon receiving the certificate of sufficiency, the Board of Supervisors considered three possible actions allowed under Elections Code Section 9111: (1) adopt the Initiative as an ordinance without alteration within 10 calendar days of the date of the meeting at which the certificate of sufficiency is presented; (2) submit the ordinance, without alteration, to the voters; or (3) order a report pursuant to Section 9111 of the Elections Code to analyze the measure's potential impacts on the community, should it be approved. The Board directed staff to prepare a report pursuant to Section 9111, which must be presented to the Board within 30 days. Thereafter, the Board must either adopt the Initiative as an ordinance of the County or submit the Initiative to the voters at the March 3, 2020 Presidential Primary Election.

Elections Code Section 9111 provides a list of potential impacts the County may choose to study as a part of the report. These impacts include the following:

- Fiscal impact;
- Consistency with the County's general and specific plan, and with planning and zoning regulations;
- Effect on the use of land, including the availability and location of housing, and the ability of the County to meet its regional housing needs;
- Impact on funding for infrastructure such as transportation, schools, parks, and open space, including maintenance costs;
- Impact on the community's ability to attract and retain businesses and employment;
- Impact on the uses of vacant parcels of land;
- Impact on agricultural lands, open space, traffic congestion, existing business districts, and developed areas designated for revitalization; and
- Any other matters the board of supervisors request to be in the report.

After receiving public comment, the Board of Supervisors provided direction on a number of additional topics or concerns the report should address, including the Initiative's impact on the reputation and character of Napa's wine and tourism industries, odor impacts from commercial cannabis cultivation, aesthetic impacts, crime and illegal market impacts, impacts on groundwater, and lessons learned from other counties such as Humboldt, Mendocino, Sonoma and Santa Barbara. This report endeavors to analyze all of these topics. Our analysis also provides a general overview of the current cannabis business market, including analysis of the different types of cannabis businesses proposed to be allowed by the

Initiative and potential revenues that could be generated by the Initiative’s cannabis tax. Finally, the Appendices to this report contains legal, regulatory, and tax background information for cannabis regulation in the State, as well as a land use map prepared by County staff.

III. Summary and Overview of the Initiative

This section provides a summary of the main provisions of the Initiative. A detailed description of each of the provisions is contained in *Appendix A, Detailed Description of Napa Cannabis Initiative*. In 2016, California voters approved Proposition 64, the Adult Use of Marijuana Act. Since then, adult possession and cultivation of cannabis for personal use are allowed under California law subject to restrictions imposed by statute and local ordinances. Prior to Proposition 64, only medical marijuana had legal status under California law. Cannabis possession and cultivation is still illegal under federal law, even for medical purposes. However, California voters have decided to prohibit state and local authorities from prosecuting or otherwise penalizing individuals for engaging in specified cannabis activities.

Three state agencies — the Bureau of Cannabis Control within the Department of Consumer Affairs, California Department of Food and Agriculture, and California Department of Public Health — regulate and license cannabis businesses. Licensees are also required to comply with any local restrictions and licensing requirements. More information about state licensing requirements is provided in *Appendix E: Legal and Regulatory Background for California*.

Commercial cannabis activities are currently banned in the unincorporated area of Napa County. Chapter 8.10 of the Napa County Code allows personal use and cultivation up to limits allowed by state law, subject to local restrictions, including that all cannabis be grown within specified setbacks and out of view of public rights of way.

The Initiative would authorize commercial cannabis cultivation, as summarized in the table below.

Commercial Activity	Type of Use	Zoning Districts Affected	Restrictions
Commercial Cannabis Outdoor Cultivation	Permitted	Agricultural Preserve (AP) Agricultural Watershed (AW)	<ol style="list-style-type: none"> 1. One acre maximum on a ten acre minimum parcel 2. Not allowed in fully enclosed facility 3. No artificial lighting or structures except temporary use of hoop structure for immature plants
Commercial Cannabis Mixed Light Cultivation	Permitted	AP, AW	<ol style="list-style-type: none"> 1. One acre maximum on a ten acre minimum parcel 2. Within existing greenhouse or similar structure 3. Artificial lighting only between 6:00 a.m. and 9:00 p.m.
Cannabis Nursery in Existing Structure	Permitted	AP, AW	<ol style="list-style-type: none"> 1. One acre maximum on a ten acre minimum parcel in existing greenhouse 2. For production of clones, seeds, and immature plants
Cannabis Nursery in New Structure	Administrative Permit	AP, AW	Less than 2,500 square feet on minimum ten acre parcel

Accessory Processing in Existing Structure Less than 2,500 Square Feet	Permitted	AP, AW	Drying, curing, trimming, storing, packaging, and labeling accessory to cultivation
Accessory Processing in New Structures Less than 2,500 Square Feet	Administrative Permit	AP, AW	Drying, curing, trimming, storing, packaging, and labeling accessory to cultivation
Accessory Processing in New Structures 2,500 Square Feet or More	Use Permit	AP, AW	Drying, curing, trimming, storing, packaging, and labeling accessory to cultivation
Cannabis Microbusiness	Administrative Permit	Airport (AV)	No special restrictions apply
Testing	Administrative Permit	AV	No special restrictions apply
Non-Storefront Retail	Use Permit	AV	No special restrictions apply
Distribution	Use Permit	AV	No special restrictions apply
Manufacturing	Use Permit	AV	No special restrictions apply

NOTE: As indicated in the table, the Initiative would authorize outdoor cultivation “of up to one acre total canopy on a legal parcel” (emphasis added), and would allow the same for both mixed light cultivation and cannabis nurseries. “Canopy” is defined as “the designated area(s) at a premises that will contain mature plants at any point in time[.]” “Total canopy” is not defined. The phrase appears to mean that the total area that will contain mature plants (whether in the form of outdoor cultivation, mixed light cultivation, or a nursery) could not exceed one acre per parcel. These definitions are discussed further in *Appendix A: Detailed Description of Napa Cannabis Initiative*.

It should be noted that all of the land in the AV zoning district is airport property owned by the County. So long as cannabis activities remain illegal under federal law, the County could not lease airport property for such uses without violating its federal grant assurances and putting previously received and future federal assistance at risk. For example, since 2014, the Airport has received approximately \$15.2 million in funding from the Federal Aviation Administration to support capital improvement projects. Additionally, depending on current federal administrative policy, the County could potentially lose its tax exemption for County bonds and possibly invite charges of aiding and abetting a federal crime.

The Initiative would also amend the County’s Zoning Ordinance to define commercial cannabis cultivation as “agriculture.” The Initiative would authorize the County Agricultural Commissioner to establish best practices that commercial cannabis cultivators would be required to follow, but would limit the Board of Supervisors’ ability to impose additional requirements affecting cannabis operations. In particular, the Initiative states that the Board of Supervisors cannot impose new regulations on commercial cannabis activities that: (a) are more burdensome than those imposed on comparable activities; and (b) are not “security and other compliance requirements.” The Initiative does not define “comparable activities.” Finally, the Initiative would strictly limit the fines that could be imposed for violations of the regulations imposed on cannabis operations. See *Appendix A: Detailed Description of Napa Cannabis Initiative* for additional information.

Consistency with State Law and Regulations

California law gives local agencies broad discretion to regulate or ban cannabis activities. Business and Professions Code Section 26200 preserves the authority of local agencies to “adopt and enforce local ordinances to regulate [cannabis] businesses . . . , including, but not limited to, local zoning and land use requirements, business license requirements, and requirements related to reducing exposure to secondhand smoke, or to completely prohibit the establishment or operation of one or more types of businesses licensed under this division within the local jurisdiction.” Revenue and Taxation Code Sections 34021 and 34021.5 also give local agencies authority to enact cannabis taxes in excess of any taxes imposed by the state.

Thus, state cannabis laws and the Initiative need not be entirely consistent. If the Initiative authorizes something that state law forbids, state law would control, and if state law authorizes something that the Initiative forbids, then the Initiative would control. For example, the Initiative limits the times of day when artificial lighting may be used in connection with mixed light cannabis cultivation. State cultivation regulations include no such limitation, but they do limit the amount of light that can be used to a maximum of 25 watts per square feet of canopy. Under the Initiative, both limitations would apply to mixed light cultivation in Napa County.

Generally state law is more restrictive than the Initiative. As indicated in the *Appendix E: Legal and Regulatory Background for California*, every cannabis business in California requires a license from the state. Cultivation licenses are issued by the California Department of Food and Agriculture (CDFA), and manufacturing licenses are issued by the California Department of Public Health (CDPH). All other state license types are issued by the California Department of Consumer Affairs, Bureau of Cannabis Control (BCC). Each of the three licensing agencies’ regulations describe application procedures and impose application fees, require background checks for operators and their employees, and establish penalties for violations, including possible revocation of a license. There are requirements intended to ensure the safety and security of commercial cannabis premises and to protect product quality and prevent adulteration. The regulations also describe a track and trace system coordinated jointly by CDFA, CDPH, and BCC, which allows the state to follow the flow of cannabis through the marketplace from cultivator to consumer.

CDFA’s regulations require compliance with a cannabis cultivation policy issued by the State Water Resources Control Board (SWRCB) in cooperation with the Department of Fish and Wildlife, pursuant to Water Code Section 13149.ⁱ This policy is incorporated into SWRCB’s Cannabis General Order,ⁱⁱ in which cannabis cultivators may enroll to meet waste discharge requirements under the Porter-Cologne Act, Water Code Section 13000, et seq., which generally prohibits discharges of pollutants into the waters of the state except as authorized by the SWRCB or a regional water quality control board. In addition to protecting water quality, the cultivation policy is designed to prevent surface and groundwater diversions for cannabis cultivation from affecting instream surface water flows. The CDFA regulations also require cultivators to comply with laws and regulations on the use of pesticides enforced by the California Department of Pesticide Regulation (CDPR).

IV. Land Use Impacts

a. Internal Consistency with the County’s General Plan, Zoning and Specific Plans

This section summarizes the Initiative’s internal consistency with the County’s General Plan and zoning. A more detailed discussion of these issues is included in *Appendix B: Internal Consistency with the County’s General Plan, Zoning and Specific Plans*.

Chapter 8.10 of the County Code allows personal use, possession, and cultivation of cannabis in unincorporated Napa County, to the extent allowed under state law and subject to local regulations. County Code Section 8.10.010 expressly bans commercial cannabis activities. The Initiative proposes a new County Code Chapter 5.80, which would authorize commercial cannabis activities, as described in this report. Chapter 5.80 would conflict with existing land use regulations. The Initiative would also amend Chapter 8.10 and the County’s Zoning Ordinance to make those sections consistent with the new chapter and to define “agriculture” to include commercial cannabis cultivation.

Proposed new Section 5.80.040 would require cannabis cultivators to comply with some of the regulations imposed on other commercial agricultural uses in the County, to the extent applicable. Section 5.80.040 would impose some additional requirements, as well. However, the Initiative does not extend some County requirements imposed on personal cannabis cultivation, such as limitations on odors. The Initiative also appears to extend County Right to Farm protections to commercial cannabis cultivation, and allow cultivation as a matter of right in the AP and AW zoning districts, insulating operations from the discretionary permit and CEQA review process that applies to many new vineyards and other uses.

Existing Regulation of Agricultural Uses Applicable to Commercial Cannabis

The Initiative would require commercial cannabis cultivators to comply with the County’s Conservation Regulations (Chapter 18.108 of the Napa County Code), Viewshed Protection Program (Chapter 18.106), and Groundwater Conservation ordinance (Chapter 13.15), where applicable. The actual applicability of these regulations depend on the location, water source, and earthmoving activity proposed by each commercial cannabis operation, however, and some activities will not require a permit under any of these ordinances.

The Conservation Regulations would require an erosion control plan for commercial cannabis operations that involve earthmoving activity, grading, or improvement on slopes over five percent. “Earthmoving” is broadly defined to include grading, vegetation clearing, compaction, and cuts and fills to prepare a site for new planting and other improvements, such as roadways. An erosion control plan is a discretionary approval and is subject to the California Environmental Quality Act (CEQA). CEQA allows a broad range of potential environmental impacts to be reviewed, which may include visual, odor, and groundwater impacts. The Conservation Regulations include specific provisions regarding stream and wetland setbacks, preservation of vegetation canopy, and drainage.

Commercial cannabis operations would be subject to the Conservation Regulations only if they involve earthmoving activity, grading, or improvement on slopes over five percent. The Conservation Regulations would not apply to commercial cannabis operations that do not meet this requirement. This potentially includes outdoor cannabis cultivation that utilizes moveable above-ground boxes or pots

instead of planting in native soil, if the cultivation involved no activities that could be defined as “earthmoving.” Above-ground boxes or pots offer several advantages to cultivators, including the ability to move plants in inclement weather, control the growth rate and eventual size of plants, and control the uniformity and quality of the growing medium.ⁱⁱⁱ

The Viewshed Protection Program would require a visibility analysis for new greenhouses, accessory structures, hoop structures, and grading for commercial cannabis operations if located on slopes of 15 percent or more or on ridgelines. The County Code defines “ridgeline” as “a visually prominent, relatively narrow strip or crest of land, which includes the highest points of elevation within a watershed, that separates one drainage basin from another.”

The Groundwater Conservation Ordinance does not apply to the development or improvement of a water source serving agriculture on the same parcel, unless the parcel is within the Milliken-Sarco-Tulucay (MST) Subarea. (County Code, §§ 13.15.040.A, 13.15.040.C.) The development or improvement of a water source serving agriculture on a contiguous parcel is similarly exempt, so long as 80 percent of the allowable plantable land of each parcel is used for agriculture, and the parcels are not in the MST. (County Code, §§ 13.15.040.A, 13.15.040.C.) These exemptions would apply to commercial cannabis cultivation because of the Initiative’s proposed revision to the County’s definition of “agriculture.” As a result, the Groundwater Conservation Ordinance would not apply to commercial cannabis cultivation, except for parcels in the MST and water sources serving multiple parcels that do not have at least 80 percent of the plantable land of each parcel used for agriculture.

Proposed Additional Regulations Applicable Only to Cannabis Cultivation

The Initiative would impose some rules on commercial cannabis that are not imposed on other agricultural uses. These are discussed in detail in *Appendix A: Detailed Description of Napa Cannabis Initiative*. Some of the most significant are:

1. Setbacks from schools, parks, residences, and certain public roads would be required, although “parks” and “schools” exclude state and federal parks, vocational or professional schools, community colleges, day care centers, and youth centers.
2. No commercial cannabis activity could occur on parcels where timber conservation or timber harvest permits would be necessary to implement the activity.
3. Cannabis cultivators would be forbidden from removing trees with a diameter of five inches or more measured from breast height.
4. Cultivators would be required to comply with best management practices promulgated by the California Department of Food and Agriculture, as well as the County’s Agricultural Commissioner.

Odor Impacts and Nuisance Issues

Unlike the County’s existing rules for personal cannabis cultivation, the Initiative does not address the potential issue of odors or other nuisances from cannabis cultivation and processing. According to the Community Character Element of the County’s General Plan, although odors are to be expected in agricultural areas like rural Napa County, they should be minimized and “unacceptable odors” should be

avoided. The potential for adverse impacts is particularly acute for lodging facilities, resorts, wineries, restaurants, and other commercial uses which are not subject to any setbacks in the Initiative. In addition, the proposed 500-foot setback from private residences and 1000-foot setback from certain schools may not suffice to avoid adverse odors and nuisance issues.

California Right to Farm Act. The Right to Farm Act (“RTFA”), codified at Civil Code Section 3482.5, provides a potential obstacle to certain kinds of nuisance actions against cannabis cultivators. The RTFA states, in material part, that no commercial agricultural activity “conducted or maintained . . . in a manner consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to a changed condition in or about the locality, after it has been in operation for more than three years if it was not a nuisance at the time it began.”

The RTFA applies to situations including “coming to the nuisance” scenarios where, for example, residents of a new subdivision sue the owner of a farm that has been operating legally and without any change in its operations for at least three years to abate odors coming from the farm that interfere with their use and enjoyment of their homes, even though the farm was there first.

The State has not defined cannabis cultivation as an “agricultural activity” for the purpose of the RTFA, and has instead defined cannabis as an “agricultural product.” (Business and Professions Code, § 26069, subd. (a).) If commercial cannabis cultivation is ever redefined or interpreted to be an “agricultural activity” within the meaning of the RTFA, the RTFA could be used to bar nuisance lawsuits once cannabis cultivation had been in operation for more than three years. Similarly, if local agencies were interpreted as having discretion to determine whether cannabis cultivation is an agricultural activity for purposes of the RTFA, the Initiative could be read as extending the RTFA to commercial cannabis cultivation by defining it as “agriculture.”

County Right to Farm Ordinance. The County’s Right to Farm ordinance (Chapter 2.94) applies to all operations necessary to conduct “agriculture” as defined in County Code Section 18.08.040, which would be amended by the Initiative to include commercial cannabis cultivation.

The County’s ordinance states that agricultural activities, operations, and facilities shall not be or become a private or public nuisance due to any changed condition if they have been in operation for more than three years “in a manner consistent with proper and accepted customs and standards” and were not a nuisance when started. The ordinance also requires that agricultural operations comply with all provisions of the County Code, and states that it does not apply when a nuisance results because of a negligent or improper agricultural operation.

Commercial cannabis cultivation, if in conformance with the other ordinance requirements, likely would receive the protections of the County’s Right to Farm ordinance once established for three years. In addition, Napa County property owners would be required to disclose to potential buyers that Napa County has determined that agricultural operations (including commercial cannabis) are the highest and best use for agricultural lands; that future property owners may be subject to odor, smoke, dust, and other inconveniences and discomfort; and that future property owners should be prepared to accept such inconveniences or discomfort as a normal and necessary aspect of living in the county.

Vineyard and Cannabis Protection under the Right to Farm Act. Conflicts have arisen between cannabis cultivation and other agriculture that may involve the use of herbicides and insecticides. Cannabis generally cannot be marketed if contaminated with even trace amounts of virtually all commercial herbicides and insecticides. In Santa Barbara County, some avocado growers located adjacent to cultivated cannabis have stopped using herbicides and insecticides because of potential liability to cannabis growers. Similar conflicts could arise in Napa County because vineyards utilize herbicides and insecticides.

A vineyard in operation for more than three years and otherwise in conformance with the County's Right to Farm ordinance should be protected from a nuisance claim by a cannabis operation locating adjacent to or near its operation. However, if the vineyard's operations change – for instance, if it changes its practices regarding the use of herbicides or insecticides – it is possible that the vineyard would lose the protections of the Right to Farm ordinance. This potential issue may discourage vineyards from locating near cannabis fields. It could also encourage cannabis cultivators to locate far from existing vineyards or in enclosed structures protected from adjacent spraying.

Commercial Cannabis Activities in the AV Zoning District

The Initiative would allow cannabis microbusinesses, testing facilities, distribution facilities, non-storefront retail establishments, and manufacturing operations in the AV Airport district. However, all of the land in the AV zoning district is airport property owned by the County. So long as cannabis activities remain illegal under federal law, the County could not lease airport property for such uses without violating its federal grant assurances and putting previously received and future federal assistance at risk. For example, the Airport has received approximately \$15.2 million in funding from the Federal Aviation Administration since 2014, to support capital improvement projects. Additionally, depending on current federal administrative policy, the County could potentially lose its tax exemption for County bonds and possibly invite charges of aiding and abetting a federal crime.

Potential Future Cannabis Uses

The Initiative does not propose any other cannabis uses, but the possibility exists that a future cannabis cultivation and/or accessory processing operation may also desire to have public tours, tastings, or “consumption lounges.” Several Sonoma County operators reportedly offer wine-and-weed tours, Napa County has a licensed cannabis event planner who has operated private cannabis tastings for medical cannabis patients in the past, and some have urged Mendocino and Humboldt Counties to become leaders in “cannatourism.”^{iv} As yet, however, cannabis-inspired tourism is not a significant industry and there is no significant data that tourists are attracted to a destination specifically because of the local cannabis industry. For example, tourists to Colorado consumed significant amounts of cannabis, but only 5% called cannabis a motivation for their trip in a 2016 survey.^v

In addition, cannabis marketing uses would require a discretionary use permit, which would be subject to environmental review and could be conditioned or denied. County Code Section 18.08.040.H.2 requires a use permit for marketing, sales, or other accessory agricultural uses, and only allows such uses if they are related, incidental, and subordinate to the main agricultural processing use. As a result, County review is required before the Initiative could lead to a proliferation of cannabis marketing, tours, or tastings.

b. Likely Demand for Permitted Uses

Cultivation

A market analysis was conducted to determine the desirability of Napa County for cannabis businesses under the Initiative. Based on this analysis, it is reasonable to anticipate that Napa County could attract a range of cultivation between what is actively licensed in neighboring Sonoma County (50 licenses) and what is currently proposed in Sonoma County for outdoor cultivation (approximately 100 licenses). Multiple factors support this range, including but not limited to the following:

- Nearby Lake County has 36 active licenses for commercial cannabis cultivation, Sonoma County has 50, and Mendocino County, with its significant cannabis industry, has 304.
- Sonoma County is similar to Napa County because of its nearby location, similar climate and topography, and wine industry. However, Sonoma County is more than twice the size of Napa County and has more than three times the population.
- At an anticipated market rate of \$500 per pound of cannabis, a one-acre outdoor grow could yield gross receipts of \$1,633,500, a significant inducement to cannabis cultivation even before any potential economic benefits of adding the “Napa” name to the cannabis product.
- The cost to lease eligible parcels is not a major barrier to entry in Napa County. Indeed, even the cost to purchase eligible properties in Napa County compares favorably to similar properties in Sonoma County, and Napa County properties appear better suited for cannabis cultivation.
- Sonoma County requires discretionary permits and CEQA review for all but the smallest cannabis cultivation projects, which has resulted in delays and increased costs for commercial cannabis applicants. By contrast, the Initiative would allow as a matter of right commercial cannabis cultivation in the AP and AW zoning districts, providing an incentive to locate in Napa County by reducing the barriers to entry for prospective cannabis cultivators.
- Napa County has 4,173 appropriately zoned parcels, excluding those that have existing wineries or that are owned by public agencies. Even if one excluded all parcels affected by setbacks set forth in the Initiative, Napa County still has 660 parcels eligible for cultivation.

Cultivation likely would occur both on the Napa Valley floor and surrounding hillsides. The majority of cultivation sites likely will be used for outdoor cultivation, because the Initiative limits mixed-light cultivation to existing greenhouses, and limits the use of artificial light to the hours of 6:00 a.m. to 9:00 p.m. It is common for cultivators to hold multiple licenses on a single property, so the 50 to 100 licenses likely would apply to a range of 32 to 64 separate parcels. As a result, the Initiative could result in up to 32 to 64 acres of commercial cannabis cultivation, most of it classified as outdoor cultivation, as well as accessory cannabis processing in existing or new structures of less than 2,500 square feet.

Uses Permitted in the AV Zone

The uses discussed below would be permitted in the unincorporated area of the County only in the AV (Airport) District. All of the land in the AV zoning district is airport property owned by the County. As discussed previously, so long as cannabis activities remain illegal under federal law, the County

could not lease airport property for such uses without violating its federal grant assurances and putting previously received (for example, approximately \$15.2 million since 2014 for airport capital improvements) and future federal assistance at risk. As a result, while demand exists for these uses, it is unlikely that any would actually be located in the AV District.

Manufacturing

Based on the figures for neighboring Sonoma County, Napa County could support 10-15 cannabis manufacturers. The Initiative limits these uses to the AV District, however, making it unlikely that any would be located in the County.

Distribution

As a very general figure, the number of cannabis distributors in a county tends to be 1/3 of the number of all other cannabis licenses, combined. Based on estimates of the number of licenses for other cannabis business types, Napa County likely could support between 14 and 24 distributors. The Initiative limits these uses to the AV District, however, making it unlikely that any would be located in the unincorporated area.

Testing

The Bureau of Cannabis Control has so far only issued licenses for 34 testing laboratories in all of California. These laboratories tend to be located in areas that serve a large amount of commercial cannabis activity such as Alameda, Los Angeles and Riverside counties. There are currently 2 licensed testing laboratories in Santa Rosa and 1 in Novato, any of which could reasonably serve businesses in Napa County. In addition to the AV District limitation, the likelihood of locating a testing laboratory in Napa County is unlikely unless and until the local industry reaches a certain critical mass. As a result, it is unlikely that any cannabis testing facilities would be located in the unincorporated area.

Microbusinesses

The Initiative would allow upon grant of an administrative permit cannabis microbusinesses, defined as cannabis cultivation on an area less than 10,000 square feet, as well as licensed distribution, Level 1 manufacturing, and retailing. The Initiative limits these uses to the AV District, however, making it unlikely that any would be located in the unincorporated area.

Non-Storefront Retailers

Given the population of Napa County estimates of the percentage of the population that uses cannabis on a regular basis, and the existing and potential future retailers in Napa County's cities, Napa County could support a range of 3 to 6 retailers. The Initiative limits these uses to the AV District, however, making it unlikely that any would be located in the County.

V. Economic impacts

A. Direct Impacts on the Wine Industry

This analysis is informed by a number of case studies of how the cannabis industry may or may not be compatible with the Napa County wine industry. These case studies are included in the *Appendix E: Impacts on the Wine Industry; Case Studies*.

Several notable names in the wine industry are starting to embrace cannabis as a compatible or even complimentary industry. These include Francis Ford Coppola, who recently attached his name to a cannabis marketing venture in collaboration with Humboldt Brothers, and Constellation Brands (which owns Woodbridge, Robert Mondavi, Clos du Bois and Mark West, among other names), which recently made a \$4 billion investment in Canopy Growth, the largest cannabis company in the world.

Potential conflicts between the wine and cannabis industries is informed primarily by the experience of Santa Barbara County. Like Napa County, Santa Barbara has long-established wine and tourism industries. Unlike Napa County, however, Santa Barbara has a more developed cannabis industry, which makes it an appropriate model for comparison. In Santa Barbara, the sudden influx of cannabis businesses created a surge in demand for processing facilities. This “seller’s market” and the perception of the cannabis industry as being flush with cash caused property owners to respond predictably by increasing their lease rates, which has forced some winemakers to look for new spaces to lease.

The Initiative is expected to result in a range of 50 to 100 cannabis cultivation licenses in Napa County, serving sites that will be limited to 1 acre in total canopy, as well as accessory cannabis processing in an existing or new structure of less than 2,500 square feet. The resulting acreage devoted to cannabis would be a small fraction of Napa County’s overall acreage. Despite the small amount of cultivation, the cannabis industry has the potential to result in impacts to the wine industry, as well as result in economic, environmental, social, and fiscal impacts to the County. Cannabis businesses may be attracted to Napa for the potential to develop unique strains of low-volume, premium cannabis.

i. Labor Force

The number of employees for a cannabis cultivation facility varies in proportion to the size and type of operation. Data collected by Marijuana Business Daily^{vi} shows that cultivation facilities commonly employ from 3 to 20 full-time employees and 2 to 11 part time employees. With a maximum size of 1 acre, commercial cannabis operations in Napa County would likely average 5 full-time and 3 part time workers. Employees working in cannabis cultivation are not considered agricultural workers by the State,^{vii} and so are subject to the requirements of a 40-hour work week, including overtime and regular breaks.

Full-time workers in the cannabis industry typically enjoy wages that are above that of other, similar occupations, though part-time seasonal workers such as trimmers make much lower wages. Some cannabis cultivators seek to hire cultivation managers with degrees in botany, horticulture or related fields who can demand higher professional salaries than other cultivation workers.

The table below shows potential positions, wages and salaries for a hypothetical 1-acre cultivation operation.

Position	#	Rate	Hours	Salary	Combined
MGR	1	\$60	2,000	\$120,000	\$120,000
FT	4	\$26	2,000	\$52,000	\$208,000
PT	3	\$15	1,000	\$15,000	\$45,000
Total					\$373,000

Of the jobs created by the Initiative, perhaps 10% will be cultivation managers with specialized education and experience in cannabis. Persons with these qualifications are not likely to come from within the wine industry. Another 30% to 40% would likely be part-time seasonal workers who would be paid similar to comparable vineyard workers, and thus would have no economic incentive to choose cannabis over vineyards. The remaining 50% to 60% would be skilled cultivation workers who may be able to transition from the wine industry to relatively higher-paying specialized jobs in the cannabis industry. Cannabis cultivators would compete with Napa County vineyards for these workers. Due to high demand from the construction industry, as well as economic growth in other businesses, there is currently a shortage of vineyard workers. The introduction of the cannabis industry would likely add to the existing demand on labor in Napa County.

ii. Competition with Higher Value Crop

Under the Initiative, cannabis growers can utilize no more than 1 acre of a minimum 10-acre parcel. Cannabis growers will likely be looking for parcels that are affordable to lease and have at least 1 acre of usable land suitable for cultivating plants in above-ground boxes or pots, or in the native soil, as well as seasonal hoop structures and new or existing accessory structures. Parcels meeting these physical requirements also exist in neighboring counties, as well as many other places around California. Cannabis growers may seek to develop in Napa County in addition to other areas, and may be attracted by the “Napa” name and the potential for affordable property leases and affordable (or non-existent) local permit requirements. The marketable benefit of the “Napa” name exists anywhere in Napa County, regardless of whether a site is in a vineyard AVA.

Cannabis and grapevines may compete for the same land where an existing grape grower decides to expand into growing cannabis. In such a case, the grower may develop or lease for development up to the maximum 1-acre area for cannabis. Growers may seek to utilize land that is currently unused for vineyards because of site suitability, economic, or other reasons. Cannabis yields up to 10 times more value on a per acre basis, and some growers may convert poor producing vineyards to a cannabis crop. Grape growers may choose to do this for increased income, to diversify their income base, to provide work for their employees during slow times of the year, or to move from lower value crops to higher value cannabis.

B. Impacts on Other Agriculture

Impacts of cannabis cultivation on other agriculture in general would be expected to be similar to impacts on grape growing. However, no particular analysis specific to other crops has been conducted.

C. Impacts on Tourism

Napa County hosted 3.8 million visitors in 2018, up from 3.5 million in 2016 and 2.94 million in 2012.^{viii} The data suggests that day-trippers make up a large percentage of Napa Valley visitors.^{ix} In 2018 the average visitor spent 1.9 days in the Napa Valley, spent \$247 per day, and visited 3.7 wineries.^x Visitors most value Napa's wine (47.6%), scenery (31.1%), and atmosphere (16.0%).^{xi} Visitors to Napa County are affluent, with an average annual household income of \$170,595, highly-educated, and an average age of 46 years old.^{xii} Visitors spent \$2.2 billion in 2018 (up from \$1.39 billion in 2012), supported 15,872 jobs, and generated \$85.1 million in taxes.^{xiii}

Commercial cannabis cultivation could negatively impact this \$2.2 billion industry, including by detracting from the area's highly-valued wineries and restaurants, outdoor dining, resort and lodging facilities, scenery, or atmosphere. The Initiative prohibits commercial cannabis activities on any legal lot where a "licensed" winery is operating, but imposes no setbacks from winery facilities on adjacent parcels. As a result, odor impacts from nearby commercial cannabis operations could detract from both outdoor and indoor tasting areas at adjacent wineries. The presence of visible cannabis operations could likewise detract from Napa's scenic beauty, impairing the visitor experience. In addition, cannabis-related crime, odor, aesthetic, or other impacts could change the perception of Napa's small-town atmosphere and generate adverse media attention, as both Sonoma and Santa Barbara counties have experienced. A change in perception and attitudes about Napa County could induce affluent visitors to spend their vacation dollars elsewhere.

Odor impacts also have the potential to significantly impact Napa County's resorts and lodging facilities. The Initiative includes no setbacks from the County's resorts and lodging facilities, which generate significant transient occupancy taxes (TOT) and other revenue. The County received \$12,620,682 in TOT in fiscal year 2017-18, in addition to \$19,468,924 in the City of Napa, \$7,154,474 in the Town of Yountville, and \$5,952,810 in the City of Calistoga. If one or more cannabis cultivation operations were developed close to Napa County's preeminent resorts or other lodging facilities, it is reasonable to foresee significant land use conflicts, adverse impacts to the visitor experience, and reduced TOT revenue for the County or its cities.

The full extent of these potential impacts depend on the number, size and location of future cannabis operations, their proximity to wineries, resorts, and lodging facilities, and their visibility from public viewpoints.

New, cannabis-inspired tourism could partially offset these potential impacts, but no significant data yet suggests that tourists would be attracted to visit Napa County, or any other destination, specifically because of the local cannabis industry. Research found some references to areas experiencing increased tourism related to cannabis, but none of the reports provided measurable or verifiable data. In addition, there is no data that would allow us to determine whether these would be new tourists who are coming to Napa County specifically because of cannabis, rather than wine tourists who may be interested in visiting a cannabis facility while they are in the Napa Valley. The possibility of multiple cannabis tours and tastings is further limited by the potency of today's cannabis products; it is unlikely that visitors could sample cannabis products at 3.7 facilities per day, as they do with wineries.

Finally, the Initiative may inadvertently work against the idea of cannabis tourism because delivery is the only form of retail sale of cannabis explicitly allowed by the Initiative. Neither visitors nor residents would be able to walk into a storefront location where they could peruse locally-grown cannabis or locally-made cannabis products. There is no cannabis equivalent of a winery's tasting room. Without this ability to browse or to purchase cannabis products in person, it is unclear what form cannabis tourism could take.

D. Impact on Property Values

For cannabis cultivation, speculation could drive up the price to lease or even purchase lands that are particularly well suited for cannabis cultivation, either on the Napa Valley floor or on less-expensive lands in the wooded hills outside of the AVAs.

The Initiative limits cannabis manufacturing, distribution, testing, microbusiness, and retail uses and operations to the AV zone, which due to County ownership of the land within the AV zone, precludes any cannabis development. As a result, Napa County would not experience the kind of sudden increase in lease rates and real estate prices for industrial spaces that occurred in Santa Barbara County, Sonoma County, and Santa Rosa.^{xiv}

E. Ability to Attract/Retain Other Businesses and Jobs

The projected cannabis cultivators that may locate in the County would add to the number of businesses and jobs in the County. No other types of cannabis businesses are anticipated within the County as a result of the Initiative.

As discussed above in this report, perhaps 10% of cannabis cultivation jobs in the County would be cultivation managers with specialized education and experience in cannabis, who are not likely to come from within the wine industry. Another 30% to 40% would likely be part-time seasonal workers who would be paid similar to comparable vineyard workers and would have no economic incentive to choose cannabis over vineyards. The remaining 50% to 60% would be skilled cultivation workers who may be pulled from the vineyard market by higher-paying jobs in the cannabis industry.

It is difficult to precisely determine the impact that legal cannabis businesses may have on a community's ability to attract or retain other businesses, because the impact would likely result from subjective values of individual business owners towards cannabis as much as objective market-based forces. Some business owners likely will not wish to locate or stay located near a cannabis business, while others would have no objection.

As with any other industry, the cannabis industry does not exist in a vacuum, and will generate economic benefits in ancillary, non-cannabis businesses. These include a wide variety of contractors including building and construction, garden supply stores, lighting and electrical, HVAC, permitting and engineering, as well as bookkeepers, accountants, tax preparers, parcel services, marketing and advertising agencies, personnel services, facilities maintenance, security services, and others. Wages generated by the cannabis industry would circulate into the local economy.

VI. Environmental Impacts

A. Water Use

A review of a number of studies and articles regarding water usage for cannabis cultivation^{xv} suggests that it takes around 250 gallons of water to produce one pound of dried cannabis flower. For our cannabis productivity projections, we commonly assume that it takes 10 square feet of canopy to produce one dried pound of cannabis outdoors. By this measure, one acre (43,560 square feet) of cannabis plants should yield around 4,356 pounds of dried flower. Applying the figure of 250 gallons of water per pound, the total water consumption for an acre of cannabis production would be around 1,100,000 gallons per year, or 3.38 acre-feet per year (AFY).^{xvi} By comparison, one acre of vineyard irrigation uses 0.2 to 0.5 AFY per acre (65,170 to 162,295 gallons), and primary residences use 0.5 to 0.75 AFY.^{xvii}

As a result, implementation of 32 to 64 acres of cannabis cultivation would result in new water demands of 108.16 to 216.32 AFY. This would be in addition to current and projected County groundwater demands by vineyards, residences, and other uses.

The impacts of this water use depend on the location of future cannabis grows. Commercial cannabis cultivation on the valley floor could draw on wells in the Napa Valley Subbasin, which the California Department of Water Resources (DWR) designated as a high priority groundwater basin effective in January 2019. Unanticipated new water demands in the Subbasin would impact the County's obligation to demonstrate that the Subbasin has and continues to operate within its sustainable yield, as required by the Sustainable Groundwater Management Act (SGMA) and DWR regulations.

The impacts of new water use outside the Napa Valley floor would depend on location, water source(s), and underlying geology. The County currently subjects discretionary projects proposed outside the valley floor to a parcel-by-parcel water availability analysis, in recognition of the uncertainty of the geology and the increasingly fractured rock aquifer systems in the mountainous and non-Napa Valley areas, including Carneros, Pope Valley, Wooden Valley, and Capell Valley.^{xviii} Depending on multiple factors, projects can have adverse impacts on individual aquifer systems, neighboring wells, hydrologically connected surface waters, and other environmental resources.

The Initiative does not include measures to fully disclose, analyze, and mitigate the impacts of groundwater use. The Initiative requires that cannabis cultivators obtain a water from a legal source and that on-site water supplies be "adequate" to meet on-site water uses on a sustainable basis, and prohibits trucked water except for emergencies as determined by the Board of Supervisors. The Initiative also requires new or improved water systems to comply with the County's Groundwater Conservation Ordinance, but as discussed elsewhere in this report, that ordinance likely will not apply to cultivation sites because of the Initiative's proposed revision to the County's definition of agriculture. As a result, groundwater sources for cannabis cultivation will likely avoid environmental review and mitigation, though cultivators will be required to provide annual reports to the Board of Supervisors documenting water use for cultivation. The Initiative does not specify any minimum contents for those reports, however, nor authorize the Board to take action if the reports show adverse impacts on water use.

Alternatively, cannabis cultivation operations can seek to utilize other water sources, potentially including municipal sources or captured rainwater. Cultivation operations could also seek to reuse, recycle, or reduce their water demand, though the Initiative does not require them to do so.

B. Odor Impacts

Cannabis cultivation can bring with it a very pungent, “skunky” odor that is often considered unpleasant to neighbors. Odors are likely greatest during the late summer and early fall. For example, the City of Ashland, Oregon annually receives numerous complaints from neighbors in late summer and early fall when cannabis plants are maturing and at its most odoriferous.^{xxix}

Odor impacts depend largely on concentration and proximity; larger cannabis grows produce greater odors, which can be detected at farther distances. After Santa Barbara County legalized commercial cannabis cultivation, for example, the Carpinteria Valley became home to 25 greenhouses and 42 acres of cannabis.^{xxx} In 2018 and early 2019, Carpinteria residents filed 166 complaints with the County about intrusive cannabis odors.^{xxxi} Residents reportedly began stuffing pillows under doors, lighting incense, and closing windows and doors even though that deprived them of cool ocean breezes in the summer.^{xxxii} Lawsuits reportedly have been filed in Sonoma County, Colorado, Oregon, and Massachusetts by neighbors claiming cannabis-related odors have harmed their property values and caused other impacts.^{xxxiii}

With indoor cultivation, odors can be mitigated through activated carbon filters, negative air pressure to prevent escapement, airflow management and a number of other established methods. Carpinteria has turned to expensive odor-neutralization systems out of Indiana that shoot vapors infused with essential oils 10 feet above greenhouse rooflines at speeds of 106 miles per hour.^{xxxiv} These methods are generally not available for outdoor cultivation, however, although some growers have reportedly expressed interest in fog systems that place nozzles where air from a grow operation will be expelled, and treat odors with a mix of water and odor-neutralizing chemicals.^{xxxv}

Odor complaints continued in Carpinteria despite the odor-neutralization systems identified above.^{xxxvi} As a result, on July 16, 2019 the Santa Barbara County Board of Supervisors (1) approved an immediate nuisance abatement against cannabis odor vectors; (2) required certain existing cannabis operators to install effective odor control systems; and (3) required new cannabis growers to demonstrate odor control at the time they apply for a conditional use permit or business license.^{xxxvii} These legislative actions demonstrate the potential significance of cannabis odor impacts on affected communities.

None of these options appear available in Napa County. The Initiative imposes no odor control requirements of any kind, even though Napa County Code Section 8.10.050.A.4 requires proper ventilation and odor control filtration for indoor cannabis cultivation for personal use. That section also prohibits cannabis odors from becoming a public nuisance or subjecting neighboring residents to reasonably objectionable odors. The Initiative does not impose this requirement, but rather protects commercial cannabis cultivation from odor control by defining it as “agriculture” subject to the County’s Right to Farm Ordinance. In addition, the Initiative may limit the County’s ability to impose new odor control requirements on commercial cannabis activities, and likely avoids discretionary permits and environmental review and mitigation for many commercial cannabis cultivation sites.

The Initiative indirectly reduce or avoid some odor impacts, by limiting the amount of cultivation on any one parcel and imposing setbacks from residences and certain schools, parks and roadways. The Initiative allows cultivation only on AP or AW zoned parcels that are at least 10 acres in size, with a 1-acre maximum area of cultivation. Cultivation must be setback at least 1,000 feet from a park or school and 500 feet from a private residence. However, the setback distance is defined as “the horizontal distance measured in a straight line from the premises to the property line of the parcel on which the park, school or private residence is located.” While parks and schools presumably take up the entirety of the parcel, residences may be setback from the edge of the parcel, effectively increasing the distance between the residence and the grow site.

The County’s Planning, Building, and Environmental Services (PBES) Department provided data showing the number of parcels that would be “touched” by the 500-foot residential setback as measured from the residence, and those that would be touched by the setback as measured from the edge of the parcel. The data shows that 1,695 AP and AW parcels would be touched by the 500-foot setback as measured from the residence, and 3,301 parcels would be touched by the setback when measured from the edge of the parcel. This indicates that nearly half of the residences on properties adjacent to candidate parcels for cultivation are more than 500 feet from the edge of the parcel. This effectively increases the setback distance for any allowable cannabis cultivation to 1,000 feet from the residence in these cases. The remaining residences would be between 500 and 1,000 feet from potential cannabis cultivation locations.

Data provided by the County also showed that the average parcel size among allowable ‘candidate’ sites is 55.8 acres. With these larger parcel sizes, the location for cannabis cultivation could be further from the property line, though the actual location would depend on each grower and each parcel. As with other types of industrial or agricultural odors, the nuisance level from cannabis odors is largely a function of concentration and proximity; the greater the source of the odor, the further away the odor can be detected.

In addition, as discussed above, the Initiative does not impose any setbacks from resorts, lodging facilities, restaurants, wineries, or other commercial uses in the incorporated or unincorporated areas of the county. These facilities may suffer significant odor impacts depending on the proximity and concentration of nearby cannabis uses, potentially resulting in adverse effects on tourism and TOT revenue across the County, including in the Cities of Napa and Calistoga and the Town of Yountville.

Cannabis odors could be addressed through the establishment of best practices by the County Agricultural Commissioner, or attempts to abate odor impacts as nuisances. However, these mechanisms are less direct than the specific requirement in the County’s ordinance regarding odors from personal cannabis cultivation, and nuisance actions may be limited by the County Right to Farm Ordinance.

C. Introduction of Pests and Diseases

There is no existing research or publication that specifically addresses common pests or diseases for both wine grapes and cannabis, or vectors that may spread diseases from one crop to the other.

The book *Grape Pest Management*^{xxviii} lists 58 pests that can afflict grapevines. The California Department of Pesticide Regulation provides a guidance document^{xxix} for cannabis growers that identifies

14 common pests. From our review of these two resources, only spider mites, termites, leafhoppers, aphids and whiteflies appeared to be identified as pests for both cannabis and grapevines.

Pests and diseases are a significant concern for grape growers, as State regulations for cannabis generally disallow application of a broad range of common herbicides and insecticides. This can create the fear that cannabis crops may harbor pests. Conversely, cannabis growers may blame other farmers when their cannabis has illegal pesticides, as their product must meet strict testing requirements before it can be sold. The Initiative does not require any buffers or setbacks between cannabis and other crops, which are necessary to avoid conflicts and potential impacts.

The guidance from the Department of Pesticide Regulation identifies legal pesticides and management practices that are allowable under California's cannabis regulations. Many of these recommended pest control methods use active ingredients that are exempt from residue tolerance requirements and are either exempt from registration requirements or registered for a use broad enough to include use on cannabis.

Because of the limited options for treating pests or diseases, many of the best practices for cannabis cultivators tend to focus on prevention. Nursery starts are inspected closely before being planted. Growers commonly avoid growing cannabis directly in the ground, choosing above-ground boxes or pots instead, with fresh, sterilized soil purchased for each planting. Hoop structures provide a measure of protection from both pests and pesticide drift, and filters and fans may be used as an added precaution. With indoor cultivation, it is not uncommon to see workers wearing protective "bunny suits" like in medical or other clean-room environments to deter the introduction of pests or pathogens. As a result, the potential for cannabis to be a pest vector for vineyards is low.

D. Groundwater Contamination

There are numerous reports of contamination due to rat poisons and other pesticides from illegal grows. Water contamination is possible from legal cannabis cultivation; however, it has been difficult to find articles or reports documenting any specific instances of groundwater contamination by legal cannabis cultivation.

The more-common concern for legal, licensed cannabis growers is crop contamination by herbicides and insecticides found in runoff or groundwater due to nearby conventional agricultural practices.^{xxx} A study by the U.S. Geological Survey's (USGS) National Water-Quality Assessment (NAWQA) Program tracked changes in pesticide concentrations in U.S. groundwater over the course of nearly two decades, from 1993 through 2011. Though pesticide concentrations rarely surpassed human-health standards, they were often of sufficient levels to raise concerns about secondary contamination of crops like cannabis, which could potentially lead to product being rejected due to testing results. This, in turn, can lead to conflicts between cannabis cultivators and conventional agricultural operations.

E. Impacts from Herbicides and Insecticides

As discussed above, California regulations generally disallow the use of many common herbicides and insecticides on cannabis. California's strict testing requirements for cannabis can cause flower with even low levels of detection for contaminants to be rejected, rendering entire batches unsaleable. The

California Department of Pesticide Regulation provides guidance documents for cannabis growers listing pesticides that are legal to use^{xxxii} and those that cannot be used.^{xxxii}

Because of the limited options for treating pests or diseases, many of the best practices for cannabis cultivators tend to focus on prevention rather than use of herbicides or insecticides.

F. Lighting and Noise Impacts

The Initiative prohibits the use of artificial lighting for outdoor cultivation, including within greenhouses and hoop structures. (Section 5.80.030.B.1.e.) The Initiative also limits artificial lighting for mixed-light cultivation to the hours of 6:00 a.m. to 9:00 p.m. only. These limitations, if followed, should eliminate possible lighting impacts from outdoor cultivation operations and reduce lighting impacts from mixed-light operations. This, in turn, should limit or even eliminate the need for generators to power supplemental lighting at night. For these reasons, the Initiative should not result in significant lighting or noise impacts.

G. Traffic Congestion

The type and volume of traffic that would be generated by cannabis cultivation and other businesses would be similar to that created by other agricultural uses. Roads accessed by cannabis cultivation operations would experience increased truck traffic during certain times of year when plots are being prepared for planting, but the amount of such traffic would likely be consistent with that of other one-acre agricultural uses. Local roads may also see an increase in daily traffic due to workers travelling to and from cultivation sites. These trips seem unlikely to result in significant traffic congestion in the County. The Initiative also allows other business types, including manufacturing, distribution and non-storefront retail, but none are expected to materialize, as explained above. As a result, the Initiative should not result in significant adverse impacts related to traffic congestion.

H. Plastic Impacts

Santa Barbara County was recently sued by a citizens group alleging that the county's decision to exempt most agricultural hoop structures from permit requirements will generate hundreds of tons of plastic waste, and questioning the recycling options for the plastic coverings used to create the structures.^{xxxiii} The development of new hoop and other plastic structures in Napa County will create a need for waste handling and potential recycling. The Initiative would allow the use of hoop structures for outdoor cultivation, for ten weeks during germination, and the Initiative does not specify the disposition of those hoop structures at the end of the ten-week germination. The Initiative also allows cannabis nursery uses to install new hoop structures of less than 2,500 square feet with an administrative permit, creating an additional source of plastic waste.

The Initiative does not address the environmental impacts of hoop structure construction, disposition and potential recycling. The resulting environmental impacts may become a market externality borne by state and local agencies.

I. Impacts on the Availability and Location of Housing

The Initiative does not propose to change the permitted uses in any areas designated primarily for housing in the County's General Agricultural/Land Use or Housing Elements, nor affect development standards applicable to housing in the County. As drafted the Initiative does not seek to create a direct impact on the availability or location of housing.

However, the Initiative could have indirect effects on the location of new housing by incentivizing commercial cannabis development on areas that might otherwise be developed for farmworker or other housing. Farmworker housing is needed in Napa County, and permitted as a matter of right in both the AP and AW zoning districts. Commercial cannabis development could indirectly impact that use by incentivizing lessees and property owners to plant over 1-acre areas that could be used for permitted farmworker housing development pursuant to County Code §§ 18.16.020.L and 18.20.020.R. Indeed, the Initiative would exacerbate the existing need for farmworker housing, by creating new agricultural operations and a new need for increased farmworkers.

In addition, cannabis cultivation and accessory processing could discourage the development of new housing if the cannabis uses are perceived as a nuisance because of odors or other characteristics. The Initiative includes setbacks from existing residences, but no setbacks from new housing that could seek to develop close to those cannabis operations. If certain areas of the unincorporated County experience significant new commercial cannabis development, the odors and other impacts of those uses could deter the development of new housing projects.

VII. Social and Cultural Impacts

A. Impacts on County Character and Appellation

"Community character" can be an elusive concept. However, Napa County likely has a more cohesive image and character than most counties or communities; one that is built solidly around its world-renowned wine industry. The County's recently-adopted Strategic Plan accurately explains that Napa County is an agricultural treasure known for its legendary wines, small-town character, and sustainable natural resources.^{xxxiv}

Impacts to community character are difficult to quantify and depend on several variables, including community attitudes toward cannabis and the cannabis industry, the number of visible cannabis locations, the amount and visibility of cannabis advertising, and the degree to which local businesses may embrace or promote the character of the "cannabis community" in an attempt to appeal to new customers.

The term "appellation" refers to a legally defined and protected area, most commonly used to describe the geographic source for wine grapes. In the United States, appellations are generally synonymous with American Viticultural Areas, or AVAs, which describes the geographic boundaries for the area, as well as its distinguishing features, including climate, geology, soils, physical features and elevation. The AVA may also refer to specific varieties of grapes that are grown in that region.^{xxxv} The physical extent of every AVA in the United States is fully described in the Code of Federal Regulations, Title 27, Chapter 1, Subchapter A, Part 9 "American Viticultural Areas."

Allowing cannabis cultivation would not affect the definition of an AVA. However, the term “appellation” is often used much more broadly to capture certain intangible qualities beyond the physical attributes of the AVA itself. It is conceivable that some people may perceive the introduction of cannabis as changing or diluting the Napa “brand,” depending on their personal values and view of cannabis. It is difficult to quantify potential impacts to the Napa “brand” that could result from commercial cannabis cultivation under the Initiative.

Use of the Napa name is not limited to wines, but also used by microbreweries in Napa County and products including olive oil, vinegar, mustard, pasta, pasta sauces, ketchup, barbeque sauce, chocolates, dog soap, teriyaki, honey, jams and jellies, shampoo and conditioner, peanut brittle and many other specialty foods and other products that are all branded with the Napa name. However, these products are not prohibited by federal law and are not the subject of a voter initiative.

B. Visual Impacts

Hoop structures associated with cannabis cultivation can result in adverse visual impacts, especially in scenic hillside areas. Hoop structures do not appear to be as common in Napa as they are in other agricultural areas, and a visual survey using Google Earth indicated that hoop structures are not widespread in Napa County. An internet image search shows some existing hoop structures in the Napa Valley, including at organic farms, nurseries, garden supply stores, private gardens and the French Laundry restaurant. These individual hoop structures do not create the same visual impact as hoop structures clustered in large arrays, however.

Existing hoop structures appear to average between 2,000 square feet and 3,000 square feet in size, which is within the common size range for cannabis cultivation. However, hoop structures used for cannabis cultivation are commonly clustered in an array of 10,000 to 20,000 square feet, or sometimes up to a full acre. Our survey found no such clusters in Napa County.

The number and location of hoop structures that might be expected in Napa County as a result of the Initiative would mirror the number of cultivation sites, or up to 32 to 64 acres. The Initiative authorizes the use of hoop structures for outside cannabis cultivation for no more than ten weeks during germination. This would likely result in multiple hoop structures clustered in parallel, giving the appearance of a single complex.

Clusters of hoop structures can have significant adverse visual impacts, depending on their location, screening, and visibility. The following Google Earth images show locations in Humboldt County that are believed to be of cannabis farms, though we are unable to individually corroborate this for the locations shown. The Google Earth image below (Figure 1) shows an array of 12 large hoop structures and 2 smaller ones. The 12 larger hoop structures measure 35 feet by 100 feet, or 3,500 square feet each, for a total of 42,000 square feet, or just under a full acre (43,560 square feet). The two smaller hoop structures measure 2,000 square feet each. This gives a good representation of a fairly standard 1-acre cannabis farm, which would be the maximum size allowable under the Initiative.

Figure 1



Figure 2 shows another array totaling approximately one-half acre. Each hoop house is 20 feet wide and 100 feet long, for a total of 2,000 square feet, each. The farm is situated in a clearing that is approximately 3 acres in size.

Figure 2



Figure 3 shows a smaller cannabis farm with two 2,000 square foot hoop structures and around 3,000 square feet of uncovered rows. The total canopy square footage is under 10,000 square feet, in a clearing of approximately one and half acres.

Figure 3



Figure 4 shows another small cannabis farm of just under 5,000 square feet. Each hoop house measures 1,600 square feet. The farm sits in a clearing of less than one acre.

Figure 4



Individuals have different reactions and aesthetic tastes, but the development of acres of white plastic hoop structures would be out of the visual character of the County's hillsides. The Initiative does not impose any measures to reduce visual impacts through vegetative screening or fencing, the use of earth tones instead of white plastic, or similar requirements. The Initiative permits as a matter of right

outdoor and mixed-light cultivation only in existing greenhouses, and limits the use of hoop structures in outdoor cultivation, though it also allows new greenhouses for cannabis nurseries and accessory cannabis processing without only a ministerial administrative permit. Administrative permits do not involve public notice, hearings, or environmental review or mitigation, limiting the County's ability to reduce or avoid adverse impacts.

Hoop structure arrays would be smaller in height than structures commonly found in Napa's agricultural lands, such as barns, warehouses, metal buildings and winery facilities that exceeded one acre in size. A few individual buildings in Napa County exceed two acres, and one complex has over 5 acres of covered area. The colors of these structures typically blend with the surrounding landscape, however, and many of them were subject to aesthetic review and mitigation as part of the discretionary permit process.

C. Impacts on Crime and the Illegal Market

Legalization or decriminalization of commercial cannabis businesses has not reduced crime. There is ample evidence that the illegal market persists despite legalization.^{xxxvi} In Los Angeles, unlicensed businesses continue to outnumber legal ones, and illegal market producers in otherwise-legal states continue to export their cannabis into other states where it is still illegal.^{xxxvii} Recent research suggests that as much as 80% of the cannabis sold in California continues to come from the illegal market, and that California's illicit market is worth \$3.7 billion, more than four times the size of the legal market in the state.^{xxxviii}

In Humboldt, Mendocino, and Trinity counties, many long-time growers who were unsuccessful in their attempt to find a foothold in the legal market have reportedly moved back underground.^{xxxix} Likewise, the recent legalization of cannabis in Michigan has reportedly resulted in hundreds of businesses selling recreational cannabis without a license, and four illegal delivery services for every licensed dispensary.^{xl} In Canada, where cannabis was recently legalized for all uses, the illegal market is still expected to account for 71% of all sales in 2019.^{xli}

Throughout California, as well as other states that have legalized and attempted to regulate cannabis cultivation, distribution, and sales, regulators have struggled with the influence and impacts of the illegal market. Complex and evolving state regulations, limited state and local resources, varying tax and fee structures, and impacts of local restrictions have all contributed to market pressures towards the illegal market in a state where production far exceeds projected consumption. The California Department of Food and Agriculture published a report in 2018 that showed the State produces as much as 15.5 million pounds of cannabis and consumes just 2.5 million pounds. California's surplus, which is 13 times Colorado's total annual production, leaks into the illegal market, often out of state, where the price is three times higher than in California.^{xlii}

The State of Colorado legalized recreational cannabis in 2014, two years before California. Despite having more than 500 recreational cannabis retail businesses in the state, the illegal market in Colorado is thriving, driven by criminal organizations that cultivate in Colorado, then smuggle their crop into other states where cannabis is still illegal.^{xliii} Oregon, which also legalized recreational cannabis

before California, is also struggling with over-production. According to the Oregon Liquor Control Commission (OLCC), Oregon is producing twice as much cannabis as people are using, which has contributed to a drop in prices from about \$10/gram to \$5/gram, between 2016 and 2018. Resources are limited for effective regulation; a recent audit report by the OLCC reported that only 3% of retailers have had compliance inspections and only one-third of growers had been inspected,^{xliii} creating attractive conditions for criminal cultivators to grow and illegally export cannabis. According to the Colorado State Judicial Branch, as analyzed by the Division of Criminal Justice for the Colorado Department of Public Safety, the number of case filings related to cannabis under the Colorado Organized Crime Control Act (COCCA) increased from 31 in 2012 (before state proposition legalizing cannabis), to 119 in the year 2017.^{xliii}

Law enforcement experts agree that so long as there is over-production for the regulated market and a high dollar profit potential in a thriving illegal market, particularly out of state, states and local jurisdictions that attempt to regulate legal cannabis cultivation will experience conditions that actually invite, or bring in, criminal illegal market opportunists who will mix in and operate within the legal operators in what can best be described as a “gray market.”

Additionally, there is evidence that the high dollar potential of cannabis product in out-of-state illegal markets can invite violent crimes to both commercial growing operations and personal, non-commercial cultivation sites. Sonoma County has experienced several incidents of violent home invasion robberies, including at least one homicide. In the first two years after the 2016 passage of its cannabis ordinance, Sonoma County had at least 7 reported incidents of home-invasion robberies related to cannabis, with several of those incidents involving robbers from the east coast who traveled to Northern California specifically to commit these crime.^{xliiii}

Similarly, in July 2019, the Mendocino County Sheriff’s Office took a report of an armed robbery involving six white males, some wearing masks, with clothing marked “security,” who robbed the victim of cash currency, harvested marijuana, and a vehicle. Two suspects were arrested after a pursuit and the investigation is still ongoing. Mendocino County has both commercial and personal cultivation ordinances but the site of the robbery was not operating within those ordinances.

In looking at cannabis cultivation related robberies around the state and in other states, it appears they often occur in illegal or out-of-compliance cultivation operations, i.e. “gray markets.” It would be prudent to have strong enforcement authority (inspections, audits, use permits) as part of a local regulatory ordinance so that only “in compliance” licensees operate and no “semi-compliance” operators or “gray market” cultivators can operate. Strong enforcement provisions and staffing is required to drive out the “gray market.” The proposed Initiative does not fully account for, or have measures in place, to dissuade illegal market, or gray market, operators.

Additionally, experience shows that *visible* cannabis operations, including easily viewable hoop structures, will invite robberies. The Initiative lacks fencing and other security requirements, and its setbacks appear insufficient to address safety concerns. Cannabis plants can vary in size from 2 feet tall, a few inches wide at maturity, to over 7 feet tall and several feet wide. The 300-foot setback from certain schools and parks does not appear sufficient to protect children if the outdoor plants allowed under the

Initiative are of the latter size. Moreover, large “backyard” cultivation sights are attractive for illegal market growers, thus subjecting those areas to potential violence and robberies.

D. Impacts on Public Health

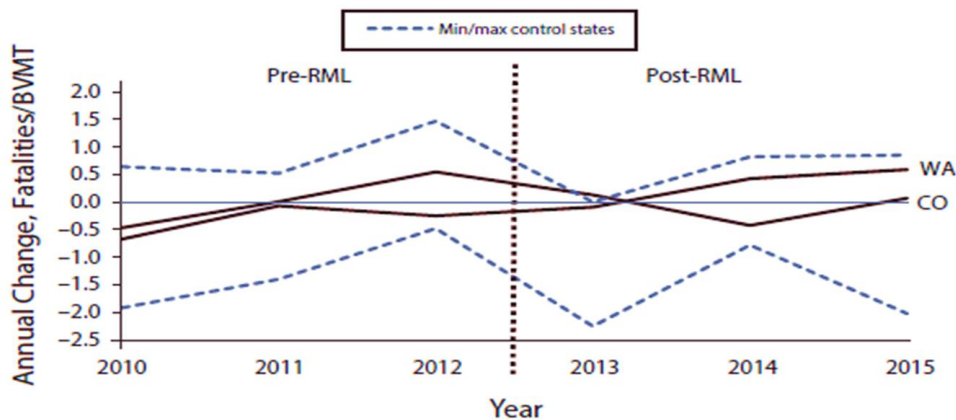
Many studies have looked at the public health impacts of cannabis use, but few have addressed how those impacts may be affected by legalization of cannabis, or cannabis cultivation. Although there appears to be a clear correlation between legalization of cannabis and increased use, studies suggest that legalization is more likely a result of increased use, rather than a cause.^{xlvii} It is likely that the causal relationship is circular, with changing attitudes and destigmatization of cannabis leading to increased use, which leads to liberalization of cannabis laws, which leads to increased destigmatization, and so on. Given this dynamic, it is reasonable to assume that areas with more liberal attitudes toward cannabis likely have higher use rates even before legalization, and that the public health impacts associated with higher use rates would likely also be pre-existing.

Substance use disorders are the leading cause of premature death in Napa County, followed by ischemic heart disease, unintentional injuries, and suicide. Alcohol and opioid use cause the majority of years of potential life lost to substance use. A much-cited report published by the Journal of the American Medical Association (JAMA)^{xlviii} found that medical cannabis laws are associated with significantly lower state-level opioid overdose mortality rates. The study looked at data from 13 states that had enacted medical cannabis laws through 2010 and found that they had a 24.8% lower mean annual opioid overdose mortality rate compared with states without medical cannabis laws. The study further found that the association between medical cannabis laws and lower rates of opioid overdose mortality generally strengthened over time after legalization.

However, a more recent study^{xlix} using the same methods found that when the researchers included states that introduced laws between 2010 and 2017, the direction of the relationship actually reversed. Instead of a reduction in opioid overdoses, medical marijuana was associated with a 23 percent increase in overdose deaths. It is believed that the data and findings from both studies are accurate, but that there are simply too many factors in the ever-changing cannabis landscape and the increasing opioid epidemic to establish any causal relationship.

Another significant cause of premature death is traffic accidents. A study by the National Highway Traffic Safety Administration (“NHTSA”)^l found that cannabis is the most frequently detected drug other than alcohol in crash-involved drivers. The NHTSA study found that having THC in one’s blood contributes to a 25% increased risk of a crash, which is consistent with other drugs. However, when the analysis was adjusted for other demographic factors including age, gender, and race/ethnicity, the results showed no increase in the likelihood of a crash due to cannabis use. Essentially, drivers with a statistically higher likelihood to be involved in a traffic accident were also more likely to be cannabis users, making any causal relationship unclear. It is also difficult to assess the extent of the impacts of cannabis use on traffic accidents, as the THC in the blood stays in the body long after the drug’s impacts. Nonetheless, it is clear that those involved in vehicle crashes with THC in their blood, particularly higher levels, are three to seven times more likely to be responsible for the incident than drivers who had not used drugs or alcohol.^{li}

A separate study published in the American Journal of Public Health^{lii} compared year-over-year changes in motor vehicle crash fatality rates in Washington, Colorado, and 8 control states to determine the annual numbers of motor vehicle crash fatalities between 2009 and 2015 both before and after recreational marijuana legalization. The study concluded that *“Three years after recreational marijuana legalization, changes in motor vehicle crash fatality rates for Washington and Colorado were not statistically different from those in similar states without recreational marijuana legalization.”*



Note. min = minimum; max = maximum.

FIGURE 1—Annual Year-Over-Year Changes in Motor Vehicle Crash Fatality Rates per Billion Vehicle Miles Traveled (BVMT) Before and After Recreational Marijuana Legalization (RML): Washington (WA), Colorado (CO), and 8 Control States, 2010–2015

Two newer studies, however, cast doubt on these prior conclusions. Studies by the Insurance Institute for Highway Safety Loss Data Institute have found an increase by up to 6 percent in the number of highway crashes in four of the states where the recreational use of cannabis has been legalized.^{liii} The studies looked at police reports and insurance claims, concluding that crashes rose between 5.2 and 6 percent in states where cannabis was legalized versus neighboring states where such use remained illegal. A particularly concerning finding was that while those under the influence of alcohol tended to be driving alone or with other adults, about 14 percent of those confirmed to be using cannabis had a child in the vehicle.^{liv} It was suggested that this statistic reflected that fact that cannabis use was not confined to evenings and other times when adults are more likely to drink and abuse alcohol.

There is a body of research linking heavy cannabis use with violent crimes and mental illness. New York Times reporter Alex Berenson documented such findings in his nonfiction book *Tell Your Children*, released in January 2019. A 2002 BMJ study concluded that frequent cannabis use affects mental health of young people. The study found that people who used cannabis by age 15 were 4 times as likely to develop schizophrenia or a related syndrome as those who had never used. In 2017, the National Academies of Sciences, Engineering and Medicine similarly reported on the health effects of cannabis and found that cannabis use is strongly linked with development of psychosis and schizophrenia, and the greater the use, the higher the risk.^{lv} Moreover, there is evidence that cannabis is much more potent these days, as are products like “wax” and “shatter” – forms of butane hash oil designed to be vaped or

dabbed that come close to 100 percent THC. These potent products can cause hallucinations, restlessness, and paranoia.^{lvi}

E. Impacts on Youth Under 25

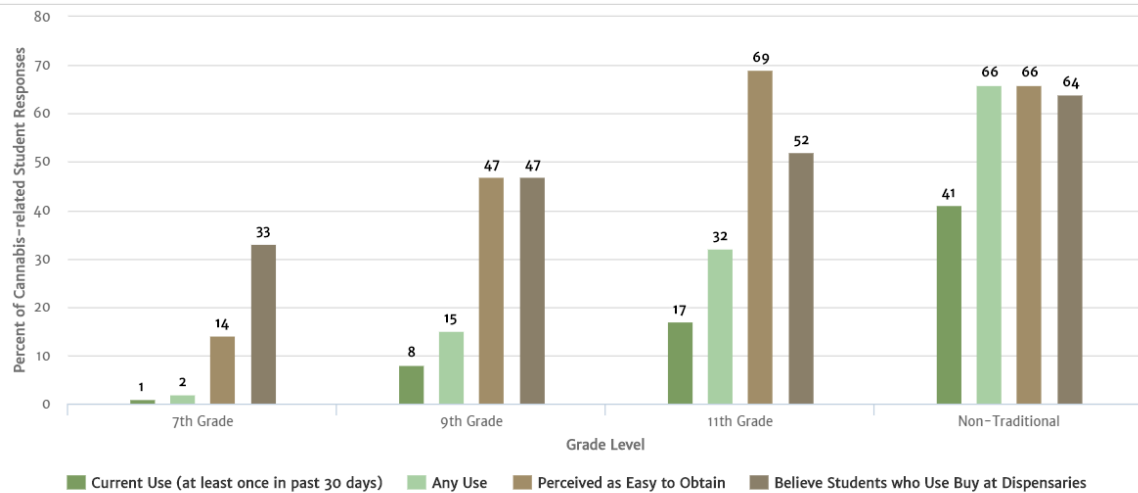
Data from the California Healthy Kids Survey (2011-2013)^{lvii} suggests that youth in Napa County already use cannabis at a rate that is higher than the State average, though somewhat below the levels of use seen in neighboring Marin and Sonoma Counties. This data pre-dates Proposition 64 (2016), and so it does not capture the impact of legalization. However, this data indicates that the baseline for youth cannabis use, and thus the baseline for any health impacts stemming from youth cannabis use, are already higher in Napa County even without legalization by the Initiative.

Cannabis Use in Lifetime by Grade Level, 2011-2013*				
	7th Grade	9th Grade	11th Grade	TOTAL
CA	10.0%	25.8%	41.9%	27.8%
Napa	10.1%	32.2%	49.2%	34.3%
Marin	9.4%	27.5%	54.4%	30.8%
Sonoma	6.5%	30.1%	50.1%	37.0%
Solano	12.8%	31.2%	45.8%	29.5%
*Source: California Healthy Kids Survey (CHKS) 2011-2013				

A report by the Napa County Public Health Division^{lviii} states “By 11th grade, nearly 1 in 3 (32%) students in Napa County have tried cannabis and about 1 in 6 (17%) have used cannabis in the last month. While these percentages were below state and national levels (35% and 20% respectively), non-traditional students in Napa County had higher levels of use (66% have tried cannabis and 41% used in the last month) (graph above). A large percentage of students believe that cannabis is easy to obtain (e.g., 1 in 2 9th graders and nearly 3 in 4 11th graders) and reported that their peers who use it usually buy it at dispensaries (e.g., about 1 in 2 9th and 11th graders)”.

Cannabis Use and Perceived Access among Napa County Students

Source: California Healthy Kids Survey, 2017 (n = 4,174)



Perceptions about ease of access are markedly higher than actual use, suggesting that access is not a limiting factor that prevents youth from using cannabis. In other words, most youth believe that if they want to use cannabis they would have no difficulty obtaining it, even without providing legal access (for adults) through licensed retailers.

However, the proposed Initiative is unlikely to result in any licensed retailers locating within the County as the only location allowed (the AV Airport zone) is likely prohibitive. Given this, the Initiative is unlikely to have any impact on the ability of youth to obtain cannabis.

VIII. Fiscal Impacts

A. Impacts on County Costs and Services

i. Sheriff and Code Enforcement

By creating a path to legalize and permit previously illegal or impermissible activities, the Initiative seeks to move those activities from being enforced through law enforcement to code enforcement. However, as discussed in the section on crime and the illegal market, the Initiative lacks strong enforcement provisions to drive out “gray market” cultivators. In that regard, it is unclear how much of the enforcement activities will be shifted from law enforcement to code enforcement. Code enforcement activities are generally conducted on a full cost recovery basis, which may include costs for administrative citations, inspections and re-inspections, investigations, daily civil penalties for violations, nuisance abatement costs, recordation fees and other costs. Failure to pay penalties and fees may result in a lien being placed on the property. The Initiative specifies penalties for a variety of violations, as shown in the table below:

	First Violation	Second Violation in Any Two Year Period	Third Violation in Any Two Year Period
Per Unpermitted Use	\$10,000	\$25,000	\$50,000
Per Day of Violation	\$1,000	\$2,000	\$5,000
Per Square Foot of Unauthorized Cultivation or Use	\$20	\$30	\$50
If the Use or Structure in Violation May Be Permitted with an Appropriate Permit	50 times the amount of the standard fee for every required approval, review, or permit		

Penalties in general are likely insufficient to deter illegal activities, especially when high profit businesses are involved. Moreover, the County’s long standing practice is to achieve compliance rather than monetize illegal activity. In addition, the Initiative blunts even these penalties by imposing a five-day grace period for unpermitted activities. The Initiative provides that no penalties shall apply if the violator removes the violation within five days after receipt of a notice establishing a violation. Typically, in enforcement cases, the County allows applicants the opportunity to correct a violation. However, there are instances where violations are egregious and/or present an immediate threat to public health and safety. In those cases, penalties are incurred from the first day. The Initiative would not allow penalties to be imposed for immediate threats until after the five-day grace period.

In all cases, the party responsible for the violation would be liable for the County’s fees and costs of enforcement, including attorneys’ fees. To obtain an award of attorneys’ fees, the County would be required to indicate its election to seek fees at the outset of any enforcement proceeding, which would entitle the other party to recover its fees were it to prevail. Such fees would be capped at the cost of the reasonable attorneys’ fees incurred by the County in the proceeding.

Cannabis businesses might be expected to operate no differently than any other legal business in regards to code compliance. However, many jurisdictions have experienced a learning curve with such businesses, both on the part of cannabis business operators who are in many cases having their first experience with permitting and operating a legal, regulated business, and on the part of local regulators and law enforcement who must develop new procedures to address a changing and developing industry.

Santa Barbara County has 1.5 regular code compliance staff and two additional code compliance staff dedicated to cannabis enforcement. Santa Barbara County’s new Cannabis Compliance Team includes six sheriff deputies and 20 other county staff who have seized more than 20 tons of illegal cannabis products and sought to enforce fake licenses and unpermitted grows that have popped up since the County adopted its cannabis ordinance.^{lix}

Sonoma County, Humboldt County, and other jurisdictions also have experienced a significant increase in code enforcement work, costs, and staffing. Sonoma County has added two full-time code enforcement inspectors and one clerical staff dedicated to cannabis enforcement after adopting a commercial cannabis ordinance.^{lx} Sonoma County received 682 complaints about cannabis cultivation on

private property between January 2017 and September 2018 alone, and shut down 638 operations.^{lxi} Sonoma County also issued 172 cannabis-involved Notices to Abate in 2018 and 2019, assessed \$1,770,751 in fines, and collected \$1,007,051 in fines.^{lxii}

Humboldt County likewise issued 597 Notices to Abate in 2019 and another 148 so far in 2019.^{lxiii} Using satellite mapping to identify unpermitted structures, Humboldt County has focused on watersheds most devastated by illicit growing. Once on the property, code enforcement officers also find and cite unpermitted roadwork, grading, culverts, tree-cutting, junk cars, and sewage discharge.^{lxiv} Significant staff and attorney time is required to investigate, draft, issue, and enforce Notices to Abate, to obtain inspection and other warrants, and to prosecute violations in court.

Code enforcement actions can also require assistance from law enforcement and other county departments. In July 2019, for example, Sonoma County staff shut down an illegal cannabis operation with more than 9,000 plants and hash oil lab. The action required County Counsel to seek and obtain an inspection warrant, and then the assistance of both the Sonoma County Sheriff's Office and the HazMat team.^{lxv} Likewise, in August 2019 the Humboldt County Sheriff's Office, assisted by a variety of state and local departments, served a total of sixteen search warrants on eighteen parcels, eradicated approximately 40,000 growing cannabis plants, and seized over 2,300 pounds of processed cannabis as well as methamphetamine, opium, butane hash oil, and 8 firearms.^{lxvi}

These counties are not alone. In August 2019 Nevada County authorities executed 8 search warrants, seized more than 5,000 suspected cannabis plants, and made one arrest.^{lxvii} The operation required eight to ten Nevada County deputies, as well as eight to ten deputies from nearby Yuba County.^{lxviii}

The Initiative does not address the seizure and storage challenges of cannabis when a property is suspected of being in violation.

The Initiative would not decrease illegal cannabis activities in Napa County, or eliminate the grey market of cannabis operators operating out of compliance with the Initiative or approved permits. As a result, passage of the Initiative would likely generate a need for additional Sheriff and Code Enforcement staffing. The cost of that support that likely would not be offset by the projected annual generation of \$760,000 to \$1,520,000 in cannabis revenues, as discussed below.

The exact cost, and the full extent of impacts in Napa County, depend on the number of illegal or unpermitted cannabis operations that exist currently or would develop in response to the Initiative, the volume of complaints received by County staff, and the County's approach to code enforcement.

ii. Fire Protection and Prevention

Illegal indoor cannabis cultivation in homes and unapproved buildings has been associated with electrical fires due to unapproved, faulty wiring and excessive electrical loads, and there have been many reports of illegal cannabis extraction laboratories exploding or catching on fire due to unsafe, unregulated and illegal methods. However, these activities are typically not representative of legal, permitted and regulated facilities. More to the point, neither of these activities are expected to occur as a result of the proposed Initiative. The Initiative disallows indoor cultivation, and cannabis manufacturers are only allowed in the AV "Airport" zone, which is unlikely to result in any actual businesses.

Under California law, outdoor cultivation does not allow for the use of any supplemental lighting. Mixed-light cultivation is allowed to use a maximum of 25 watts per square foot. The Initiative only allows for mixed-light cultivation in existing greenhouses, which is believed to be a limiting factor in the number of such cultivation facilities that may occur under the Initiative. Due to these factors, impacts to fire protection or prevention would be no greater than other similar allowable use of the properties in question.

iii. Permitting and Application Processing

State law allows the County to recover the direct costs associated with processing a permit or entitlement; performing investigations, inspections, and audits; and administrative enforcement of the permit or entitlement. Cities and counties that regulate cannabis businesses generally require some kind of discretionary permit (e.g. a use permit), and some cities require cannabis businesses to pay annual permit renewal fees, which may also include annual inspections and financial audits.

The Initiative would make commercial cannabis cultivation a permitted use in the Agricultural Preserve (AP) and Agricultural Watershed (AW) zoning districts. A “permitted use” is a use that does not require either an administrative permit or use permit from the County. A proposed cannabis business would only be required to obtain a zoning clearance – that is, it would only have to demonstrate to the Planning Department that its proposed uses are consistent with the regulations contained in the Initiative, applicable development standards, and required building and fire code standards. Applicants proposing commercial cannabis cultivation would not be required to obtain a discretionary permit under the Conservation Regulations unless they propose earthmoving activity, grading, or improvements on slopes over five percent.

A ministerial permit requires far less staff time than a discretionary permit, but in doing so it denies the County the ability to perform a better analysis and review of the potential impacts of each proposed business, and prevents the County from being able to require any conditions or mitigations to protect public health and safety and reduce impacts on the environment. Due to the scope and potential impacts associated with commercial cannabis cultivation, the inability to provide this sort of upfront regulatory oversight may be considered an externalized cost of this ordinance.

iv. Tax Collection and Cash Handling

The Initiative specifies that “the tax imposed by this Chapter shall be collected by the Napa County Treasurer-Tax Collector biannually in the same manner as other taxes fixed and collected by Napa County”, and that the taxes “shall begin to accrue on the date on which a person becomes engaged in legally-authorized commercial cannabis activity.” No additional detail is provided.

This brief description fails to recognize that cannabis taxes are often paid in cash, opposed to other taxes such as property tax. Many jurisdictions have had difficulty developing safe and secure methods for handling the large amount of cash they receive from cannabis businesses.

Cannabis businesses are increasingly finding ways to bank their income. We would anticipate that perhaps 30% of the businesses may be able to pay their taxes through means other than cash, but cash is still predominant. Based on our revenue estimates, we would anticipate that the Treasurer-Tax Collector may see biannual payments of perhaps \$275,000 in cash increments averaging \$10,000 per cultivator.

v. Infrastructure

It is not anticipated that there will be any significant impact to County roads or other infrastructure from cannabis businesses as a result of this Initiative. Cannabis businesses can be expected to generate truck traffic on County roads, particularly during site preparation or construction, and annually at the beginning and end of planting and at the end of each harvest. Cannabis growers most commonly use fresh soil for each planting, and that soil must be trucked in. However, this is not a high volume, and so the number of truck trips per cultivation site would be low, and likely consistent with other, similar agricultural uses.

B. Impacts on County revenues

Our fiscal analysis projects that the cannabis industry in Napa County would generate approximately \$760,000 to \$1,520,000 per year from cannabis cultivation.

i. Cannabis Taxes

A detailed market analysis was conducted, which is included as an Appendix to this report. That analysis looks at the market desirability of each of the allowable commercial cannabis business types under the Initiative, the number of each business that may choose to locate in Napa County, the size and potential receipts of each business, and the potential tax revenue that could be generated for the County.

Based on this analysis, it is anticipated that the County would likely generate approximately \$760,000 to \$1,520,000 per year in cannabis tax revenue.

ii. Impact on General Sales Tax Revenues

The portion of retail cannabis sales that would likely go to residents in the unincorporated area of the County was reviewed. Because the Initiative only allows retail cannabis sales by delivery, the sales tax from all sales would have to be apportioned with any city where a purchaser resides.

All retail sales of cannabis would be subject to State and local sales tax. The sales tax rate in Napa County is 7.75%, with 1.75% of that figure going directly or indirectly to the County. However, sales taxes are apportioned to the jurisdiction in which the sales transaction occurs (the point of delivery), so the County would only recover sales tax from that portion of sales that occur in the unincorporated area. From our analysis, we anticipate that the County's share of such taxes would range from \$79,716 to \$175,375, with a best estimate of \$111,602.

Medicinal cannabis sales to a qualified patient who produces their State-issued Medical Marijuana Identification Card at the time of purchase would not be subject to State or local sales tax, though they would still be subject to State and local cannabis taxes. However, as noted above, only 14 such cards were issued in Napa County in 2017, making this portion of sales inconsequential for purposes of this analysis.

iii. Impact on Property Taxes and the Williamson Act

The Initiative would add cannabis cultivation to the definition of “agriculture” in the County Code. The effect of this addition on the County’s Right to Farm Ordinance is discussed in detail elsewhere in this report.

Each county that chooses to participate in the Williamson Act gets to determine its own guidelines, so long as they are not in conflict with the State. The County would have the ability to determine whether or not it wishes to confer the benefits of the Williamson Act on properties where cannabis is cultivated.

When Humboldt County revised its Williamson Act guidelines to deal with this issue, the County determined that cannabis cultivation would be allowed as an accessory use on contract lands, but that it would not count as the primary agricultural use on the property. In other words, a rancher could lease a portion of his contract land for cannabis cultivation as a supplemental or accessory use, so long as the primary economic use of the land remained ranching. By doing so, the County allowed landowners in the Williamson Act program to gain some supplemental income from a small portion of their land while keeping the majority of the land in its historic farming or ranching use.

Similarly, Sonoma County’s Williamson Act guidelines provide that cultivation of cannabis is not considered a qualifying agricultural use, but limited cannabis cultivation may be allowed as a compatible use on contracted lands. All compatible uses combined can take up no more than 15% of the property up to a maximum of 5 acres, whichever is less. The landowner must file an application for a revised Land Conservation Act contract or Land Conservation Plan to identify the new cannabis use and a compliance statement to demonstrate that the land will remain in compliance with the contract restrictions. The area subject to cannabis cultivation may increase the property taxes even though the land remains under contract.^{lxix}

iv. Impact on TOT Revenues

The Initiative may have an adverse impact on TOT revenues if commercial cannabis cultivation creates adverse odors or otherwise impairs the visitor experience at local resorts or other lodging facilities. As discussed above, the Initiative imposes no setbacks between cannabis and lodging facilities, and imposes no requirements to control odor from commercial cultivation sites. TOT is a significant source of County revenue, and totaled \$12,620,682 in the County in fiscal year 2017-18. Proportionally to the size of the budgets, the TOT is even more important to the cities. TOT totaled \$19,468,924 in 2017 for the City of Napa. It was \$7,154,474 for the Town of Yountville and \$5,952,810 for the City of Calistoga. Reductions in TOT revenue as a result of the Initiative could impair not only the County’s ability to address the crime and code enforcement impacts of unpermitted cannabis activities, but also general city, Town, and County functions to serve the public health, safety, and welfare.

On the other side of the ledger, it is speculative to assume that the Initiative could have a positive impact on TOT revenue. As discussed above, although many in the cannabis industry have talked about “canna tourism,” no significant data yet exists to determine the amount of tourists who may be attracted to visit Napa County specifically because of the local cannabis industry.

IX. Appendices

A. Detailed Description of Napa Cannabis Initiative

Key Definitions

The Initiative contains the following significant defined terms:

1. “Cannabis” is as defined in Business and Professions Code Section 26001, and means the cannabis plant and products derived from it. Cannabis does not include industrial hemp, fibers and other products derived from mature cannabis stalks, oil and oil cake derived from cannabis seeds, or sterilized seeds.
2. “Canopy” means the area of any premises that will contain mature plants measured in square feet, which may be non-contiguous. In the case of plants cultivated using shelving, the surface area of each shelf is included in the calculation of the total canopy.
3. “Commercial cannabis activity” includes the recreational or medicinal cultivation, possession, manufacture, distribution, processing, storing, laboratory testing, packaging, labeling, transportation, delivery or sale of cannabis and cannabis products. It does not include cultivation and possession for personal use.
4. A “commercial cannabis business” is an entity engaged in a commercial cannabis activity.
5. “Commercial cannabis cultivation” means any activity involving the planting, growing, harvesting, drying, curing, or trimming of cannabis. As discussed below, “commercial cannabis cultivation” includes commercial cannabis outdoor cultivation, commercial cannabis mixed light cultivation, and cannabis nursery.
6. “Premises” means a structure or structures or land where a commercial cannabis activity occurs under a state cannabis license. The premises must be contiguous and operated by a single licensee, and are demarcated in the application for the state license. A single property may contain more than one premises.

The Initiative also would revise the definition of “agriculture” in the Napa County Code to include commercial cannabis cultivation. The Initiative would revise County Code Section 18.08.040.A to define “agriculture” to include “Growing and raising trees, vines, shrubs, berries, vegetables, nursery stock, hay, grain, and similar food crops and fiber crops, and commercial cannabis cultivation as provided in Chapter 5.80.”

Regulation of Commercial Cannabis Cultivation

The Initiative would make commercial cannabis cultivation a permitted use in the Agricultural Preserve (AP) and Agricultural Watershed (AW) zoning districts, the two principal agricultural zoning designations in the unincorporated County. A “permitted use” is a use that does not require either an

administrative permit or use permit from the County.¹ Note that although certain uses would be allowed without a permit specified by the Initiative, all commercial cannabis activities require a license from the state under state law, and, as discussed below, many would require other County permits. Three specific types of commercial cannabis cultivation would be permitted under the Initiative, as follows:

1. “Commercial cannabis outdoor cultivation,” which means any cultivation that does not make use of artificial lighting, and that does not occur within a fully enclosed and secure structure. Commercial cannabis outdoor cultivation specifically includes cultivation in a hoop structure or in an *existing* greenhouse. Hoop structures for cultivation may be erected “for no more than ten weeks during germination.” The Initiative does not limit the time of year during which hoop structures may be used. The Initiative appears to limit the use of hoop structures to ten weeks per year, but could say so more directly.
2. “Commercial cannabis mixed light cultivation,” which means “any activity involving the planting, growing, harvesting, drying, or trimming of cannabis in a greenhouse, glasshouse, conservatory, hothouse, or similar structure” using light deprivation or artificial lighting. Artificial lighting would be allowed only between 6:00 a.m. and 9:00 p.m., and to qualify as a permitted use, the activity must occupy an “existing” greenhouse. The Initiative provides no other restrictions on lighting wattage, use of generators, or storage of fuels, though some of these activities may be regulated by the state. Unlike for cannabis nurseries (discussed below), the Initiative does not make provision for mixed light cultivation in new facilities. Though mixed-light cultivation is allowed within hoop structures under state law, it would be disallowed by the Initiative.
3. “Cannabis nursery” uses would include the production within a greenhouse of “clones, immature plants, seeds, and other agricultural products used specifically for the propagation and cultivation of cannabis.” A cannabis nursery would be a permitted use only within an existing greenhouse, but new greenhouses less than 2,500 square feet in size could be permitted with an administrative permit from the County. There are no restrictions on lighting or hours of operation for lighting for cannabis nurseries.

Each type of cultivation could occur only on a parcel of at least 10 acres. A parcel could have multiple premises of cultivation, provided that the “total canopy” on the parcel did not exceed one acre. As explained earlier in this report, the Initiative’s limitation on “total canopy” appears to mean that the aggregate canopy for cultivation, whether in the form of outdoor, mixed light, or nursery cultivation, would be limited to one acre, and not that one acre of each of these three types of cultivation would be allowed.² Potential ambiguity arises from the fact that nursery cultivation appears intended to count

¹ An administrative permit is a ministerial land use entitlement that does not require notice to the public, environmental review, or a hearing. Use permits require notice, environmental review, and a hearing before the Planning Commission. Permitted uses that does not require any permit may be implemented without any County review.

² Under state law, the California Department of Food and Agriculture (CFDA) issues a variety of cultivation license types. The commercial cannabis cultivation activities proposed by the Initiative would require one of the following license types: Type 3 (outdoor medium cultivation, 10,001 square feet to one acre), Type 3B (mixed light medium

toward the one acre total canopy limit, even though the Initiative defines “canopy” as the area of the premises that will contain “mature” plants. Nursery cultivation by definition is intended to be limited to production of “only clones, immature plants, seeds, and other agricultural products used specifically for the propagation and cultivation of cannabis,” which would exclude mature plants.

Accessory Processing

The Initiative would authorize cannabis processing within the AP and AW zoning districts. “Cannabis processing” is defined by the Initiative as “all activities associated with drying, curing, trimming, storing, packaging, and labeling of cannabis or nonmanufactured cannabis products.”³ These activities would be allowed as accessory to cultivation, as follows:

1. As a permitted use within an existing structure less than 2,500 square feet in size;
2. With an administrative permit in a new structure less than 2,500 square feet in size; or
3. With a use permit in a new or existing structure 2,500 square feet or more in size.

The accessory processing provisions of the Initiative create some ambiguity in the case of drying, trimming, and curing within an existing greenhouse. CDFA’s regulations define “cultivation” as “any activity involving the planting, growing, harvesting, drying, curing, grading, or trimming of cannabis”. These activities are all allowed under each cultivation license type except nurseries. Although storing, packaging, and labeling of nonmanufactured cannabis products are addressed in the Initiative only in the provisions for accessory processing, drying, trimming, and curing of cannabis are also included in the Initiative’s definitions of “commercial cannabis cultivation” and “commercial cannabis mixed light cultivation.” As indicated above, outdoor cannabis cultivation is defined as cultivation that does not occur within a fully enclosed and secure structure, including cultivation in an existing greenhouse. Mixed light cultivation also includes cultivation in an existing greenhouse. Up to one acre of outdoor or mixed light cultivation would be permitted without an administrative or use permit on a parcel meeting minimum lot size and other requirements under the Initiative. Because drying, trimming, and curing fall within the definition of outdoor and mixed light cultivation, and because outdoor and mixed light cultivation include cultivation in an existing greenhouse, it appears that within existing greenhouses, a use permit is not required to engage in those activities without regard to the size of that structure, so long as the cultivator observes the overall one acre per parcel limit on cultivation. Yet the accessory processing provisions require a use permit to engage in drying, trimming, and curing within an existing structure 2,500 square feet in size or more. It is not clear whether this requirement is intended to apply where the existing structure in question is a greenhouse.

cultivation, 10,001 square feet to 22,000 square feet), Type 4 (nursery), or Type 5B (mixed light large cultivation, greater than 22,000 square feet). No “large” type licenses (e.g., Type 5B) will be issued before January 1, 2023. Until the same date, a licensee may not be issued more than one “medium” type license (e.g., Types 3 or 3B).

³ Processing activities as defined are allowed under all cultivation licenses, provided the processing area is designated on the cultivation plan. CDFA regulations also provide for a separate “processor” license that authorizes trimming, drying, and packaging of non-manufactured cannabis not as a part of a cultivation facility. (See Cal. Code Regs., tit. 3, § 8201(f).)

No state license is available for “accessory” activities per se, and it is possible that some of the activities permitted by the Initiative would be prohibited by current or future state regulations. In the case of such a conflict, cultivators would be required to operate in conformance with state law.

Commercial Cannabis Activities in the Airport (AV) Zoning District

The Initiative would authorize commercial cannabis activities within the AV zoning district as follows:

1. With an administrative permit:
 - Cannabis microbusinesses; and
 - Cannabis testing.
2. With a use permit:
 - Cannabis non-storefront retail;
 - Distribution; and
 - Manufacturing.

A “cannabis microbusiness” is defined as a business licensed under state law to act as a cannabis distributor, manufacturer (limited to non-volatile extraction, infusion, packaging, and labeling), and non-storefront retailer. “Cannabis non-storefront retail” means retail sale by delivery only out of a facility that is closed to the public.

It should be noted that all of the land in the AV zoning district is airport property owned by the County. So long as cannabis activities remain illegal under federal law, the County could not lease airport property for such uses without violating its federal grant assurances and putting previously received and future federal assistance at risk. Additionally, depending on current federal administrative policy, the County could potentially lose its tax exemption for County bonds and possibly invite charges of aiding and abetting a federal crime.

Regulations Applicable to all Commercial Cannabis Activities

The Initiative would impose the following regulations on commercial cannabis activities:

1. The premises of a commercial cannabis activity would be required to be set back at least 1,000 feet from the property line of a school or park, and 500 feet from the property line of an adjacent residence. The definitions of “park” and “school” exclude state and federal parks, vocational or professional schools, community colleges, day care centers, and youth centers. It is unclear how this exclusion would interact with state law, which imposes a 600 foot setback requirement for day care and youth centers unless the local agency establishes a different setback. Arguably the express exclusion of day care and youth centers from any setback requirement establishes a different local setback, which would control over the 600 foot setback established by statute, but state law also could be interpreted as requiring at least some setback.
2. The commercial cultivation premises would also be required to be set back at least 600 feet from any state highway, Stanly Lane, and Silverado Trail, and 300 feet from other public highways.

Since these setback requirements would apply only to cultivation, it is unclear whether or to what extent they would apply to accessory processing activities, which as discussed above are described alternatively in the Initiative as cultivation and as accessory to cultivation.

3. Water used both for cultivation and employee consumption would generally be limited to onsite water sources. "Onsite" is not defined, but presumably onsite water is surface water obtained under a riparian right or groundwater obtained under a correlative right, rather than water obtained as an appropriator. The Initiative would specifically ban trucked water sources, so "onsite" may instead mean any source that is not trucked. Cultivators would also be required to provide annual reports to the County documenting water use, but details for complying with this requirement are not provided in the text of the Initiative.⁴
4. No commercial cannabis activity would be allowed on any parcel with a winery. Section 18.08.640 of the Napa County Code defines a "winery" as an agricultural processing facility used for fermenting of grape juice into wine or for secondary fermentation of wine into sparkling wine.
5. The following additional limitations would apply:
 - a. No commercial cannabis activity would be allowed on parcels where timber conservation or timber harvest permits would be necessary to implement the cannabis activity.
 - b. Tree removal would not be allowed in connection with cannabis cultivation in the case of any tree that is five inches or more in diameter measured at four and one-half feet above mean natural grade.
 - c. Commercial cultivation would be subject to viewshed protection and conservation requirements of Chapters 18.106 and 18.108 of the Napa County Code, as well as "best management practices" developed by the County Agriculture Commissioner and CFDA.

"Napa" Designation

The Initiative would allow the use of the term "Napa" in the advertising and labeling of cannabis or cannabis products for products grown 100 percent outdoors in natural sunlight, in compliance with state laws governing use of trademarks, trade names, and cannabis appellations. The term "Napa" could also be used on a label as part of an address. State law allows CDFG to create an appellation program for

⁴ Specific regulations of water use are as follows:

1. Water source. All water used in connection with cannabis cultivation shall be obtained from a legal water source and shall be applied in accordance with all applicable ordinances, laws, and regulations.
2. Any new water system or improvement of an existing water system that is proposed to supply groundwater for commercial cannabis activity shall comply with [County Ordinance Code] Chapter 13.15, Groundwater Conservation.
3. All water used in connection with commercial cannabis cultivation shall use an onsite water supply source adequate to meet all on-site water uses on a sustainable basis. Water use includes, but may not be limited to, irrigation water, and permanent potable water supply for all employees. Trucked water shall not be allowed, except for emergencies requiring immediate action, as determined by the Board of Supervisors.

Commercial cannabis cultivators under this chapter must provide an annual report to the County documenting water use for cultivation on a date determined by the Board of Supervisors.

identifying the origin of cannabis products, but a program has not yet been established. Separately, CDFA has adopted county-of-origin regulations for cannabis products, as required by statute, which provide that a label may specify the county of origin only if 100 percent of the cannabis was grown in the county specified.⁵

Enforcement

The Initiative would add a new Section 5.80.060 to the Napa County Code providing remedies for violations of the Initiative’s requirements, including civil and administrative fines. The County’s usual civil and administrative nuisance procedures would also apply. No penalty could be imposed, however, without giving a responsible party five days’ written notice to correct a violation. Fines would also be capped as follows:

	First Violation	Second Violation in Any Two Year Period	Third Violation in Any Two Year Period
Per Unpermitted Use	\$10,000	\$25,000	\$50,000
Per Day of Violation	\$1,000	\$2,000	\$5,000
Per Square Foot of Unauthorized Cultivation or Use	\$20	\$30	\$50
If the Use or Structure in Violation May Be Permitted with an Appropriate Permit	50 times the amount of the standard fee for every required approval, review, or permit		

In all cases, the party responsible for the violation would be liable for the County’s fees and costs of enforcement, including attorneys’ fees. To obtain an award of attorneys’ fees, the County would be required to indicate its election to seek fees at the outset of any enforcement proceeding, which would entitle the other party to recover its fees were it to prevail. Such fees would be capped at the cost of the reasonable attorneys’ fees incurred by the County in the proceeding. The Initiative does not provide a specific mechanism for the County to seek revocation of a state license for repeat or flagrant offenders, although it does not prohibit an effort by the County to seek revocation.

Proposed Section 5.80.060 states that that specific section is not intended to establish criminal liability. However, violations of the Initiative in certain cases could constitute violations of other sections of the Napa County Code and of state law, and presumably could be prosecuted accordingly. For example, Penal Code Section 373a makes it a misdemeanor not to abate a nuisance after reasonable written notice from an enforcement officer. Napa County Code Section 1.20.150 makes any violation of the Code a misdemeanor unless otherwise indicated, and any commercial use of any property within the unincorporated area of the County that is not expressly allowed is a violation of Section 18.12.080.C.

⁵ See Cal. Code Regs., tit. 3, § 8212(b). Note that a key difference between an appellation program for cannabis and existing wine appellation laws is the lack of any federal enforcement for cannabis appellations.

Taxes

The Initiative would impose a tax of \$1.00 per square foot of canopy on commercial cannabis cultivation, except that a \$2.00 per square foot tax would apply to mixed light cultivation. The taxes would be adjusted annually for inflation beginning in 2022. Non-cultivation activities would be subject to a 3.5 percent gross receipts tax. All of the taxes would be general taxes, with revenues deposited in the County general fund. The Treasurer-Tax Collector would have specified collection and enforcement powers.

Amendments Not Requiring Voter Approval

In California, voter-approved measures typically may be amended only by another voter-approved measure. However, the Initiative states that the Board of Supervisors may approve without voter approval any amendment that expands the allowances for commercial cannabis activities, is less restrictive than the Initiative, or reduces the taxes imposed by the Initiative. The Board also could “[a]dd additional security and other compliance requirements as long as they are not more burdensome than the security or compliance requirements applicable to comparable non-commercial cannabis activities.”

One interpretation of this latter provision is that any security and other compliance requirements on “non-commercial” cannabis activities (i.e., personal use, possession, and cultivation) could likewise be imposed on commercial cannabis activities. In view of the apparent intent, and because “commercial cannabis activities” is a defined term in the Initiative, the phrase “non-” could also be read to modify the entire phrase “commercial cannabis activities.” In other words, the Board could impose new security and other compliance requirements on commercial cannabis activities without voter approval so long as the restrictions are not more burdensome than those imposed on activities that are comparable to commercial cannabis activities. However, without voter approval the Board cannot adopt additional requirements on commercial cannabis activities that are more burdensome than those applicable to activities comparable to commercial cannabis activities, even if those requirements merely supplement, but are not necessarily contrary to, the requirements of the Initiative. The Initiative does not define “comparable activities.” Personal cultivation, use, and possession of cannabis seems comparable to commercial cultivation, use, and possession, and presumably cannabis cultivation is comparable to cultivation of non-cannabis products. Similarly, cannabis accessory processing, testing, distribution, manufacturing, and non-storefront retail is comparable to similar activities not in connection with cannabis. However, without a definition of “comparable activities,” the extent of the Board’s authority is uncertain and not clear.

This restriction on the Board’s power to add additional security and/or compliance requirements should be read in context with proposed County Code Section 5.80.010.B.3, which states: “Nothing in this Chapter is intended, nor shall it be construed, to exempt commercial cannabis activity from compliance with all other applicable County zoning and land use regulations, as well as other applicable provisions of the County Code[.]” Read together, these two provisions mean that current County land use regulations would apply to commercial cannabis activities, but the Board cannot impose new regulations specifically on commercial cannabis activities that: (a) are more burdensome than those imposed on comparable activities, and (b) are not “security and other compliance requirements.” Because of the lack of clarity regarding the terms used in the Initiative, it is uncertain whether and to what extent, if any, the Board of Supervisors can establish security and compliance requirements without obtaining future voter approval.

B. Internal Consistency with the County’s General Plan, Zoning and Specific Plans

Currently, Chapter 8.10 of the County Code allows personal use, possession, and cultivation of cannabis in unincorporated Napa County, to the extent allowed under state law and subject to local regulations. County Code Section 8.10.010 expressly bans commercial cannabis activities. The Initiative proposes a new County Code Chapter 5.80, which would authorize commercial cannabis activities, as described in this report. Chapter 5.80 would conflict with existing land use regulations, but the Initiative would also amend Chapter 8.10 and the County’s Zoning Ordinance to be consistent with the new chapter and to define “agriculture” to include commercial cannabis cultivation.

Proposed new Section 5.80.040 would generally require cannabis cultivators to comply with some of the regulations imposed on other commercial agricultural uses in the County, to the extent applicable. Section 5.80.040 would impose some additional requirements, as well. However, the Initiative does not extend some County requirements imposed on personal cannabis cultivation, such as limitations on odors.⁶ Also, the Initiative would impose a more relaxed enforcement regime on cannabis than applies to other uses by capping fines imposed for violations of Chapter 5.80, and by attempting to limit criminal liability for violations.

The discussion that follows begins by describing existing regulations on agricultural uses in the County. Next, regulations that the Initiative would impose on cannabis cultivation only are outlined. Third, given that the Initiative does not address odors or other nuisances, avenues for addressing odors or other nuisances both under existing law and the Initiative are discussed. Because nuisance abatement would be a primary means to address odors, and because California’s Right to Farm Act limits the circumstances under which a nuisance abatement action may be brought against an agricultural operation, the Right to Farm Act and its possible application to commercial cannabis cultivation are addressed. Finally, because the Initiative would also authorize commercial cannabis accessory processing on agricultural lands, as well as non-cultivation commercial cannabis activities in the AV zoning district, these proposed uses are analyzed in the context of the County’s existing land use regulations for comparable uses.

Existing Regulation of Agricultural Uses Applicable to Commercial Cannabis

The Initiative would require commercial cannabis cultivators to comply with the County’s Conservation Regulations (Chapter 18.108 of the Napa County Code), Viewshed Protection Program (Chapter 18.106), and Groundwater Conservation Ordinance (Chapter 13.15), where applicable. The

⁶ See Napa County Code Section 8.10.030.A.4: “Cannabis cultivation shall not cause a public nuisance to or adversely affect the health, safety, or general welfare of persons at the cultivation premises, in any public right-of-way adjacent to the cultivation premises, or at any nearby residence or nearby property or areas open to the public, including, but not limited to, by creating dust, glare, heat, noise, noxious gases, odor, smoke, traffic, or vibration, or by the use or storage of hazardous materials, processes, products or wastes.”

See also Section 8.10.050.A.4: “Any structure used for indoor cannabis cultivation shall have proper ventilation and odor control filtration to prevent mold damage and prevent cannabis plant odors or particles from becoming a public nuisance to surrounding properties or the public. The cultivation of cannabis shall not subject residents of neighboring parcels who are of normal sensitivity to reasonably objectionable odors. A public nuisance may be deemed to exist if the cultivation produces odors that are disturbing to people of normal sensitivity residing or present on adjacent or nearby property or areas open to the public.”

actual applicability of these regulations will depend on the location, water source, and proposed earthmoving activity for each commercial cannabis operation, however, and some activities will not require a permit under any of these ordinances.

Conservation Regulations. The Conservation Regulations apply in all zoning districts and to all uses that may involve earthmoving activities. “Earthmoving” is broadly defined to include grading, vegetation clearing, compaction, and cuts and fills to prepare a site for new planting and other improvements, such as roadways. The Conservation Regulations include rules to maintain vegetation cover in the AW zoning district, stream setback requirements, and prohibition of most land uses on slopes with grades of 30 percent or more. Special rules apply to areas defined as “erosion hazard areas,” which are defined as areas having slopes of 5 percent or more. Because the AP zoning district generally encompasses the valley floor, many sites have slopes of less than 5 percent and are not defined as erosion hazard areas. In the AW zoning district, which comprises the hill areas surrounding the valley floor, most sites are defined as erosion hazard areas.

Agricultural earthmoving activity, grading, or improvement on slopes over five percent require approval of an erosion control plan by the County’s Planning Director. An erosion control plan is a discretionary approval and is subject to the California Environmental Quality Act (CEQA). To approve an erosion control plan, the Planning Director must find that site development will create no net increase in erosion. CEQA also requires that a broad range of potential environmental impacts be reviewed, which may include visual, odor, and groundwater impacts.

Commercial cannabis operations would be subject to the Conservation Regulations only if they involve earthmoving activity, grading, or improvement on slopes over five percent. The Conservation Regulations would not apply to commercial cannabis operations that do not involve earthmoving activity, grading, or improvement on slopes over five percent. This potentially includes outdoor cannabis cultivation that utilizes moveable above-ground boxes or pots instead of planting in native soil if the cultivation involved no activities that could be defined as “earthmoving.” Above-ground boxes or pots offer several advantages to cultivators, including the ability to move plants in inclement weather, control the growth rate and eventual size of plants, and control the uniformity and quality of the growing medium.^{lxx}

Viewshed Protection Program. The County’s Viewshed Protection Program requires that the County complete a visibility determination before any permit of any type is issued to construct structures or undertake grading on a ridgeline or on slopes of 15 percent or more. The Planning Director may grant viewshed clearance for a project if the project will not be visible from designated public roads or conforms to specific limits on design and visibility. If these criteria cannot be met, the project is subject to discretionary approval by the Zoning Administrator or Planning Commission.

New greenhouses, accessory structures, hoop structures, and grading for commercial cannabis operations would be required to comply with the Viewshed Protection Program if located on slopes of 15 percent or more or on ridgelines. The County Code defines “ridgeline” as “a visually prominent, relatively narrow strip or crest of land, which includes the highest points of elevation within a watershed, that separates one drainage basin from another.”

Groundwater Conservation. The Groundwater Conservation Ordinance does not apply to the development or improvement of a water source serving agriculture on the same parcel, unless the parcel is within the MST Subarea. (County Code, §§ 13.15.040.A, 13.15.040.C.) The development or improvement of a water source serving agriculture on a contiguous parcel is similarly exempt, so long as 80 percent of the allowable plantable land of each parcel is used for agriculture, and the parcels are not in the MST. (County Code, §§ 13.15.040.A, 13.15.040.C.) These exemptions would apply to commercial cannabis cultivation because of the Initiative’s proposed revision to the County’s definition of “agriculture.” As a result, the Groundwater Conservation Ordinance would not apply to commercial cannabis cultivation, except for parcels in the MST and water sources serving multiple parcels that do not have at least 80 percent of the plantable land of each parcel used for agriculture. If a groundwater permit was required, it would review impacts on groundwater supplies and recharge and on springs, surface water bodies, and other landowner’s wells.

Proposed Additional Regulations Applicable Only to Cannabis Cultivation

In addition to the regulations described above, and as noted in the *Appendix A: Detailed Description of Napa Cannabis Initiative*, the Initiative would impose the following additional rules on commercial cannabis cultivators:

1. Commercial cultivation could occur only on parcels in the AP and AW zoning districts on parcels of at least 10 acres. Parcels with wineries would be excluded. Total canopy per parcel could not exceed one acre.
2. Commercial cannabis outdoor cultivation would not be allowed to make use of artificial lighting, and artificial lighting for commercial cannabis mixed light cultivation would be limited to the hours of 6:00 a.m. and 9:00 p.m.
3. Outdoor cultivation could not occur in any enclosed, secure structure, and hoop structures in connection with outdoor cultivation may be erected “for no more than ten weeks during germination.” The Initiative does not limit the time of year in which hoop structures could be used, and suggests hoop structures are limited to ten weeks per year. Commercial cannabis mixed light cultivation could occur only in existing facilities. New facilities could be constructed for cannabis nurseries, but would be limited in size to 2,500 square feet, and would require administrative permits.⁷
4. Setbacks from schools, parks, residences, and certain public roads would be required, although “parks” and “schools” exclude state and federal parks, vocational or professional schools, community colleges, day care centers, and youth centers.
5. Water used for cultivation and employee consumption would be limited to onsite sources “except for emergencies requiring immediate action, as determined by the Board of Supervisors.” Cultivators would be required to provide annual reports to the County documenting water use.
6. No commercial cannabis activity could occur on parcels where timber conservation or timber

⁷ For more information about administrative permit requirements, see the discussion below regarding accessory processing activities.

harvest permits would be necessary to implement the activity.

7. Cannabis cultivators would be forbidden from removing trees with a diameter of five inches or more measured from breast height.
8. Cultivators would be required to comply with best management practices promulgated by the California Department of Food and Agriculture, as well as the County's Agricultural Commissioner.

Nuisance Issues

Unlike the County's existing rules for personal cannabis cultivation, the Initiative does not address the potential issue of odors or other nuisances from cannabis cultivation and processing. According to the Community Character Element of the County's General Plan, although odors are, within reason, to be expected in agricultural areas like rural Napa County, they should be minimized, and "unacceptable odors" should be avoided.⁸ Concern regarding cannabis odors or other possible nuisance impacts potentially could be addressed as follows:

1. The Initiative would authorize the County Agricultural Commissioner to establish best practices for cannabis cultivation that cultivators would be required to follow. To the extent that techniques are available to minimize odors associated with cannabis cultivation, these techniques could be required by the Agricultural Commissioner as best practices.
2. Where commercial cannabis cultivation activities require discretionary approvals from the County, such as the approval of an erosion control plan, CEQA may provide an opportunity to address impacts such as potential odors and to require mitigation.
3. Offensive odors could be abated as nuisances. Civil Code Section 3479 states that a nuisance includes anything that is "injurious to health, including, but not limited to, the illegal sale of controlled substances, or is indecent or offensive to the senses, or an obstruction to the free use of property, to interfere with the comfortable enjoyment of life or property, or unlawfully obstructs the free passage or use of [navigable waters, highways, or public parks]." Noxious odors from nearby properties that interfere with the use and enjoyment of one's own property satisfies this definition. Thus, where odors from cannabis plants affect surrounding users, County Code Section 1.20.020.B.4 would give the Board of Supervisors authority to find that a public nuisance exists that could be abated by the County.⁹

Right to Farm Act. The Right to Farm Act ("RTFA"), codified at Civil Code Section 3482.5, might provide a potential obstacle to certain kinds of nuisance actions against cannabis cultivators. The RTFA states, in material part, that no commercial agricultural activity "conducted or maintained . . . in a manner

⁸ See Community Character Goals, Nos. 9 & 10, which encourage acceptance of odors that are "part of Napa County's character," while protecting residents from exposure to unacceptable odors and siting compatible land uses where odors already exist. See also Community Character Policy No. 51, which states that odors associated with winemaking and agricultural processes are "acceptable" if they are minimized, consistent with normal operation and use.

⁹ "The provisions of this chapter [Nuisance Abatement and Criminal Violations for Code Violations] also apply to any specific condition, act, or failure to act declared to be a nuisance by the board of supervisors . . . [that] involves . . . [¶] . . . a public nuisance known at common law or equity."

consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to a changed condition in or about the locality, after it has been in operation for more than three years if it was not a nuisance at the time it began.”

The RTFA applies to situations including “coming to the nuisance” scenarios where, for example, residents of a new subdivision might sue the owner of a farm that has been operating legally for at least three years to abate odors coming from the farm that interfere with their use and enjoyment of their homes, even though the farm was there first. The RTFA “prevail[s] over any contrary provision of any [local] ordinance or regulation.” Thus, if commercial cannabis cultivation is an “agricultural activity” within the RTFA’s meaning, the RTFA could be used to bar nuisance lawsuits once cannabis cultivation had been in operation for more than three years. The RTFA does not apply to bar nuisance actions against cannabis or other agricultural operations located for less than three years near existing uses.

The RTFA defines “agricultural activity” broadly to include, without limitation, “the cultivation and tillage of the soil, dairying, the production, cultivation, growing, and harvesting of any agricultural commodity including timber, viticulture, apiculture, or horticulture, the raising of livestock, fur bearing animals, fish, or poultry, and any practices performed by a farmer on a farm as incident to or in conjunction with those farming operations[.]” This definition might be interpreted in the future as broad enough to encompass cannabis cultivation.

However, Business and Professions Code Section 26069, which confers authority on the California Department of Food and Agriculture to regulate cannabis cultivation, does not define cannabis cultivation as an “agricultural activity” but rather states that for purposes of the state’s Medical and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA), “cannabis is an agricultural product.” Because the statement that cannabis is an agricultural product is limited in scope to MAUCRSA, some legal experts interpret the statement to mean that cannabis is not an agricultural product for purposes of other laws. Cannabis cultivation does not involve the production of food or fiber and is still illegal under federal law, suggesting that cannabis is neither an agricultural commodity nor that its cultivation is “consistent with proper and accepted customs and standards” so as to be entitled to the protection of the RTFA.

Local agencies may have discretion to determine whether cannabis cultivation is an agricultural activity for purposes of the RTFA.¹⁰ Business and Professions Code Section 26200 expressly preserves local authority to “adopt and enforce local ordinances to regulate businesses licensed under [MAUCRSA], including, but not limited to, local zoning and land use requirements, business license requirements, and requirements related to reducing exposure to secondhand smoke[.]” By defining commercial cannabis cultivation as “agriculture,” the Initiative could be interpreted as extending the RTFA to commercial cannabis cultivation.

County Right to Farm Ordinance. The County’s own Right to Farm ordinance (Chapter 2.94) applies to all operations necessary to conduct “agriculture” as defined in County Code Section 18.08.040, which would be amended by the Initiative to include commercial cannabis cultivation in the definition of agriculture. “Agricultural land” is defined broadly to include any property designated in the County’s General Plan as agricultural resource (AR) or agriculture, watershed, and open space (AWOS) or zoned

¹⁰ See, e.g., Santa Barbara County Code of Ordinances, § 3-23(b)(2).

AW or AP as an interim zone. These are the areas where the Initiative would allow commercial cannabis cultivation. Chapter 2.94 also protects “agricultural operations,” which include processing of any living organism and preparation and delivery to storage or to market.

The County’s ordinance states that agricultural activities, operations, and facilities shall not be or become a private or public nuisance due to any changed condition if the agricultural activities have been in operation for more than three years “in a manner consistent with proper and accepted customs and standards” and were not a nuisance when started. The ordinance also requires that agricultural operations comply with all provisions of the County Code, and states that it does not apply when a nuisance results because of a negligent or improper agricultural operation. Disclosure is required for any transfer of property adjacent to agricultural land.

Commercial cannabis cultivation, if defined as “agriculture” and in conformance with the other ordinance requirements, likely would receive the protections of the County’s Right to Farm ordinance once established for three years.

Vineyard and Cannabis Protection Under the Right To Farm Act. Among other issues, conflicts have arisen between cannabis cultivation and other agriculture that may involve the use of herbicides and insecticides. In general, cannabis cannot be marketed if contaminated with even trace amounts of herbicides or insecticides. In Santa Barbara County, avocado growers located adjacent to cultivated cannabis have in some instances stopped their use of herbicides and pesticides because of potential liability to cannabis growers. Similar conflicts could arise in Napa County because vineyards often utilize herbicides and insecticides.

A vineyard in operation for more than three years and otherwise in conformance with the County’s Right to Farm ordinance should be protected from a nuisance claim by a cannabis operation locating adjacent to or near its operation. However, if the vineyard’s operations change – for instance, if it changes its practices regarding the use of herbicides or insecticides – it is possible that it would lose the protections of the Right to Farm ordinance.¹¹ This potential issue may discourage vineyards from locating near cannabis fields and encourage cannabis cultivation away from existing vineyards.

Accessory Processing of Cannabis

Accessory processing, which is defined to include drying, curing, trimming, storing, packaging, and labeling cannabis, could occur as accessory uses to cultivation under the Initiative, as described in further detail in the *Appendix A: Detailed Description of Napa Cannabis Initiative*. Accessory processing activities would be subject to the same setback requirements as cultivation under the Initiative, as well the same restrictions on tree removal. An accessory processing activity could not occur on a parcel where timber conservation or timber harvest permits would be necessary to implement the activity. Accessory processing would require an administrative permit if conducted in a new structure less than 2,500 square

¹¹ Compare, for example, *Rancho Viejo v. Tres Amigos Viejos* (2002) 100 Cal.App.4th 550 with *Jacobs Farm/Del Cabo, Inc. v. Western Farm Services, Inc.* (2010) 190 Cal.App.4th 1502. In *Rancho Viejo*, the Court of Appeal determined that the RTFA protected an avocado grower from a claim that its irrigation practices damaged a neighbor's land. However, in *Jacobs Farm/Del Cabo*, the Court determined that spraying of pesticides drifted to an organic farm and found the adjacent farm liable. The RTFA did not apply because the spraying had been started only one year before the damage occurred.

feet in size and would require a use permit in a new or existing structure 2,500 square feet or larger. No permit would be needed for accessory processing in an existing structure less than 2,500 square feet in size.

An administrative permit is a ministerial County permit that does not require notice to the public or a hearing, or environmental review. County Code Sections 18.126.030 and 18.126.060 specify that an administrative permit is issued by the Planning Director upon a showing that the proposed use meets all County requirements for that use.¹² Where an administrative permit would be required for accessory processing, the applicant would need to demonstrate that all requirements for accessory processing were met and to prove that an appropriate state license had been issued for the activity. State licensure is discussed in *Appendix E: Legal and Regulatory Background for California*.

A use permit is in most instances heard by the Planning Commission following notice to the public and a hearing. The approval authority must find that the proposed use will not adversely affect public health, safety, and welfare, and that the use is consistent with zoning, any specific plan, and the General Plan. Specified findings are also required regarding the impact of the use on groundwater. Because a use permit is discretionary, CEQA review is required, which provides an opportunity to analyze the environmental consequences of a proposed use and to require mitigation.

As noted in *Appendix A: Detailed Description of Napa Cannabis Initiative*, there is not a state license per se for “accessory processing.” This could create some confusion in determining whether the proper state licenses have been obtained and some processing activities permitted by the Initiative may be prohibited by state law.

Commercial Activities in the AV Zoning District

The Initiative would allow cannabis microbusiness, testing facilities, distribution facilities, non-storefront retail establishments, and manufacturing operations in the AV Airport district. As indicated in *Appendix A: Detailed Description of Napa Cannabis Initiative*, cannabis microbusinesses and cannabis testing facilities would require administrative permits, and cannabis non-storefront retail establishments, cannabis distribution facilities, and cannabis manufacturing operations would require use permits. Commercial cannabis activities allowed in the AV zoning district would be subject to the same setback requirements as cultivation and accessory processing and the same restrictions on tree removal. These uses likewise could not occur on a parcel where timber conservation or timber harvest permits would be necessary to implement the activity although this is not likely to be an issue in the AV district, which is an industrial zone.

The AV Airport district was established to permit uses that would not be detrimental to the operation of the Napa County Airport and also to permit uses that would support the Airport’s operations such as aviation insurance and aircraft maintenance and repair. The proposed cannabis-related uses have no relationship to the Airport. It should be noted that all of the land in the AV zoning district is airport property owned by the County. So long as cannabis activities remain illegal under federal law, the County could not lease airport property for such uses without violating its federal grant

¹² Although not relevant here, some administrative permits are issued by the Zoning Administrator instead of the Planning Director. (See Napa County Code of Ordinances, §§ 18.10.020, 18.126.030.)

assurances and putting previously received (for example, approximately \$15.2 million since 2014 for Airport capital improvements) and future federal assistance at risk. Additionally, depending on current federal administrative policy, the County could potentially lose its tax exemption for County bonds and possibly invite charges of aiding and abetting a federal crime.

Potential Future Cannabis Uses

The Initiative does not propose any other cannabis uses, but the possibility exists that a future cannabis cultivation and/or accessory processing may also desire to have public tours, tastings, or “consumption lounges.” Several Sonoma County operators reportedly offer wine-and-weed tours, Napa County has a licensed cannabis event planner who has operated private cannabis tastings for medical cannabis patients in the past, and some have urged Mendocino and Humboldt Counties to become leaders in “cannatourism.”^{lxxi} However, no significant data yet suggests that tourists may be attracted to Napa or any other destination specifically because of the local cannabis industry. For example, tourists to Colorado consumed significant amounts of cannabis, but only 5% called cannabis a motivation for their trip in a 2016 survey.^{lxxii}

In Napa County, any of these uses would require a discretionary use permit, which would be subject to environmental review and could be conditioned or denied. County Code Section 18.08.040.H.2 requires a use permit for marketing, sales, or other accessory uses, and only allows such uses if they are related, incidental, and subordinate to the main agricultural processing use.

C. Napa County Cannabis Business Market Analysis

As with other impacts, the amount of revenue that the County may be able to generate from the measure's cannabis business tax depends upon the type, number and size of cannabis businesses that may choose to locate within the County. Our analysis of both sales tax revenue and cannabis business tax revenue is based on data and assumptions about the total size of the local market.

Our estimates of the number of cannabis retailers, manufacturers, distributors and testing facilities that may locate in the County, and the amount of revenue they may generate, are based on assumptions about the overall market for such activities. However, all commercial cannabis activities other than cultivation may find it difficult or even impossible to find an allowable location in the unincorporated area, as the only zone designated for these activities by the Initiative (the AV zone) is under oversight by the Federal Aviation Administration (FAA) which would almost certainly disallow any commercial cannabis uses. Because of this, the reality is that the number of such businesses in the unincorporated area would likely be zero.

Our analysis seeks to be useful to the County beyond the immediate questions raised by this Initiative, and so it considers the number of each of these business types and the potential revenues they could generate from the perspective of market demand. The discussion of each of these business types concludes with a statement about the actual number of businesses that would likely locate in the County as a result of the Initiative, and amount of revenues they might realistically generate. We believe that this type of dual analysis provides the most useful information that may help to inform the County's future decision making beyond the immediate questions raised by this Initiative.

Cannabis Retailers

License data from the State's three cannabis licensing agencies shows 2 licensed cannabis retailers in Napa County, but only one shows any sales tax receipts, suggesting the other may not be operational. In addition, the Weedmaps website shows 3 unlicensed delivery services located in or around the City of Napa and 2 in or around American Canyon. Sales tax data shows that the licensed retailers have not been in business long enough to provide sales tax remittance information for a full year of operation. However, based on data from comparable cities, it is estimated that these retailers, once established, will likely generate annual sales in the range of \$4 million dollars each.

In addition, there are 21 licensed retailers in neighboring Sonoma County, as well as numerous unlicensed delivery services. There are also a number of both licensed and unlicensed cannabis retailers and delivery services in neighboring Vallejo. While some of these businesses will deliver to locations in Napa County, their service is limited and infrequent due to the relative separation of Napa Valley from the Highway 101 corridor. Because of this, if licensed cannabis retailers were more available in Napa County, we do not anticipate that they would experience significant leakage to delivery services from Sonoma or other neighboring counties. By the same token, we do not anticipate that Napa retailers would capture any significant sales from outside the county.

For purposes of revenue projections, we have provided a model based on consumer demand. For each assumption, we have provided a range of three estimates: low, medium and high. We estimate that cannabis consumers make up anywhere from 10% to 22% of the County's population, with a "best estimate" of 14%. For our model we assume that any non-storefront retailers in Napa County would serve

customers almost exclusively within Napa County itself, with minimal sales in neighboring counties. Similarly, we anticipate that such retailers in Napa County would capture existing sales that are currently going to delivery services from those neighboring counties.

The total Napa County population is approximately 140,000, of which approximately 114,000 live in the cities of Napa, American Canyon, St. Helena, Calistoga and Town of Yountville. This leaves around 26,000 people living in the unincorporated area of the County. It is expected that retailers in both the cities and the unincorporated area will all serve customers throughout the County, and not just in their own jurisdiction. There are already two licensed retailers in the City of Napa, though one has not generated sales tax receipts and may not be operational. In addition, the City of American Canyon is currently in the process of licensing two to three retailers. These retailers would reduce the amount of market available to potential retailers in the unincorporated area.

We believe that American Canyon will be fully served by retailers located there and in neighboring Vallejo, so we will remove American Canyon's population of 20,000 from our calculation of market size. For the City of Napa, we anticipate that the two existing retailers there likely serve about half of that city's population of 80,000, so we reduce our calculation of market size by another 40,000. Combined, this reduces the size of the available market from 140,000 down to 80,000.

The gross receipts for retailers varies depending upon the number of retailers serving a given population. It is reasonable to expect that more retailers will mean fewer customers for each and, thus, lower gross receipts. Retailers are the only cannabis business that specifically serves the local community, rather than feeding into the statewide market, and so the number of dispensaries can be assumed to be somewhat proportional to the local population. Consumer demand for cannabis is assumed to generally be a constant, regardless of its legal status or the availability of dispensaries, and so it is reasonable to expect that more dispensaries will mean fewer customers for each and, thus, lower gross receipts.

However, there will always be an upper limit. We anticipate that providing greater access to dispensaries or retailers would initially facilitate a shift in cannabis purchases happening through legal, regulated means rather than through the illegal market, especially for non-medical cannabis. Eventually, though, the local cannabis market will reach saturation, at which point new cannabis retailers will simply cannibalize sales from existing retailers. The taxable amount of gross sales will likely plateau at some point, regardless of the number of retailers.

Under California's regulatory program, it is anticipated that consumers will have little reason to purchase cannabis in the medical segment rather than buying in the adult use segment. Both medical and adult use cannabis will pay the State cultivation tax and excise tax, with the only advantage being an exemption from regular sales tax for qualifying patients with a State-issued identification card. Currently there are only 6,172 such cardholders in California, and just 14 cards were issued in all of Napa County in 2017.^{lxxiii} Eligibility for this limited sales tax exemption will cost consumers approximately \$100 per year, plus time and inconvenience, for a savings of 7.75% in Napa County. It is anticipated that this will provide no price advantage for the vast majority of cannabis consumers.^{lxxiv}

The Bureau of Cannabis Control projects that more than half of the adult use purchases currently in the illegal market will transition to the legal market to avoid the inconvenience, stigma and risks of buying unknown product through an unlicensed seller.^{lxxv} Essentially, the easier, cheaper and more

reliable it is for consumers to access quality cannabis legally, the less reason they will have to purchase it through the illegal market. That same study projects that 60% of those currently in the legal, medical cannabis market will shift to the adult use market, for the reasons noted above. The availability of legal adult use cannabis is also anticipated to produce a small 9.4% increase in consumer demand.

The shift from medical to adult use sales is not expected to change the overall volume of sales, only the category into which they fall. Once the legal, adult use market is properly functioning, it is anticipated to capture about 61.5% of the overall cannabis market in California. The legal medical cannabis market is projected to decline to just 9% of the overall market, though this projection may change due to the increasing popularity of CBD products. The other 29.5% is expected to remain in the illegal market.^{lxxvi} The vast majority of retail licenses issued by the Bureau of Cannabis Control are for retailers who will operate both medical and adult use from the same premises.

Estimates of the percentage of the population that uses cannabis on a regular basis vary from around 10% to 13%^{lxxvii}, up to as high as 22%.^{lxxviii} Applying these estimates to the Napa County’s available market would yield between 8,000 and 17,600 potential cannabis consumers, with a “best estimate” of 11,200. Cannabis retailers typically average around 120 customers per day,^{lxxix} with a total customer base of around 2,500 customers. From this, we can assume that the available un-served market in Napa County could support from 3 to 6 retailers.

The average cannabis transaction is \$73, and average frequency of purchases is twice a month.^{lxxx} Applying these figures to the customer base, above, we develop a range of annual gross receipts generated by cannabis consumers within the available market of between \$14 million and \$30.8 million, with a best estimate of \$19.6 million.

Revenue Projections for Non-Storefront Cannabis Retailers in Napa County			
	Low Estimate	"Best" Estimate	High Estimate
Total County population	140,000	140,000	140,000
Cities population	114,000	114,000	114,000
Unincorporated population	26,000	26,000	26,000
Leakage to other jurisdictions	-60,000	-60,000	-60,000
Total customer base	80,000	80,000	80,000
Percentage of population that uses cannabis	10.0%	14.0%	22.0%
Number of cannabis users	8,000	11,200	17,600
Average transaction amount	\$73	\$73	\$73
Transaction frequency (per month)	2	2	2
Monthly gross receipts	\$1,168,000	\$1,635,200	\$2,569,600
Annual gross receipts	\$14,016,000	\$19,622,400	\$30,835,200
Annual tax revenues			
County share of sales tax (1.75%)	\$79,716	\$111,602	\$175,375
Cannabis business tax (3.5%)	\$490,560	\$686,784	\$1,079,232
Total County tax revenue	\$570,276	\$798,386	\$1,254,607

The Initiative proposes that cannabis retailers be taxed at a rate of 3.5%. When we apply this rate to our best estimate of gross receipts, we project that this tax would generate \$686,784 in annual revenue

for the County. However, sales that are delivered to addresses within any of the cities may be subject to apportionment if those cities have their own cannabis retail tax in place. This could reduce the portion of those cannabis tax dollars that goes to the County by 45%. This reduction is not shown in our cannabis tax estimates.

All retail sales of cannabis would also be subject to State and local sales tax.¹³ The sales tax rate in Napa County is 7.75%, with 1.75% of that figure going directly or indirectly to the County. However, sales taxes are apportioned to the jurisdiction in which the sales transaction occurs (the point of delivery), so the County would only recover sales tax from that portion of sales that occur in the unincorporated area. From our analysis, we anticipate that the County's share of such taxes would range from \$79,716 to \$175,375, with a best estimate of \$111,602.

As noted in the introduction to this market analysis, the only allowable locations for cannabis retailers under this ordinance would be within the AV or Airport zone. All parcels within this zone are under FAA oversight which would likely preclude any commercial cannabis uses. For this reason, though the market could likely bear the number of businesses described above, we anticipate that under this Initiative no such businesses would locate in unincorporated Napa County. Thus, the likely cannabis tax and sales tax revenues from cannabis retailers under this Initiative would be \$0.

Cannabis Manufacturers

The manufacturing sector is still evolving and expanding, which presents significant opportunities for innovation, business development and job growth. The range of products being produced includes an ever-increasing variety of edibles such as candies, cookies, dressings, and infused (non-alcoholic) drinks. Manufacturers may produce their own extract on site, or they may buy extract from other Type 6 or Type 7 licensees. Much like any other industry, cannabis manufacturers often depend upon other businesses to supply them with the various materials or components that go into their final product. These suppliers do not have to be located in or even near the same jurisdiction as the final manufacturer, and may be located anywhere throughout the state.

Some manufacturers may handle all steps from extraction to packaging the end product in the form of vape pens or other such devices. Others may handle only discreet steps, such as making the raw BHO, which is then sold either directly to retailers or to a Type N manufacturer who will package it into vapor cartridges or other end consumer products. Manufacturers also produce a wide variety of tinctures, as well as topicals such as cannabis infused lotions, salves, sprays, balms, and oils.

As of August 6, 2019, the Manufactured Cannabis Safety Branch (MCSB) of the California Department of Public Health shows 871 cannabis manufacturing licenses statewide. Of these, 464 are for non-volatile extraction, 243 are for volatile extraction, 123 are for non-extraction manufacturing, 25 are

¹³ Medicinal cannabis sales to a qualified patient who produces their State-issued Medical Marijuana Identification Card at the time of purchase would not be subject to State or local sales tax, though they would still be subject to State and local cannabis taxes. However, as noted above, only 14 such cards were issued in Napa County in 2017, making this portion of sales inconsequential for purposes of this analysis.

for packaging and labeling, and 16 are for manufacturers using a shared-use facility. These 871 businesses are owned by 841 separate companies.

The MCSB has not issued any manufacturing licenses in Napa County. In neighboring Sonoma County, however, the MCSB shows a total of 35 licenses, of which 24 are for Type 6 non-volatile extraction, 4 are for Type 7 volatile extraction, and 7 are for Type N non-extraction manufacturing.

In its regulatory impact analysis, the MCSB estimated that there may ultimately be as many as 1,000 cannabis manufacturing businesses in California, employing around 4,140 people. This would indicate an average of 4 new jobs per manufacturer, though this figure likely varies significantly depending on the size and nature of each business. We believe these figures for both the potential number of cannabis manufacturing businesses and for the average number of employees to be on the low side, though we do not have an alternative figure to reference.

Pro-formas for numerous cannabis manufacturers seeking permits in counties and cities throughout California were reviewed. Gross receipts range from around \$1 million to over \$5 million, with an average in the range of \$2 million to \$3 million. Based on the figures for neighboring Sonoma, we believe that Napa County could likely support 10-15 cannabis manufacturers, most of which would likely be smaller “boutique” manufacturers using either non-volatile extraction methods or infusion. We anticipate that manufacturers in Napa County would likely focus on producing edible cannabis products that would be compatible with wines and the Napa brand, such as chocolates, cookies or cannabis-infused non-alcoholic drinks. Sales of these products would likely be strongest within Napa County and the surrounding wine country.

We shall use an average of \$2.5 million for purposes of this analysis. When we apply the Initiative’s 3.5% tax rate to the range of businesses discussed, we anticipate that cannabis manufacturers in Napa County could generate between \$875,000 and \$1,312,500 in annual revenue for the County, as shown in the table below.

Cannabis Manufacturers				
Type 6/7/N/P Manufacturer	# of Licenses	Avg Gross Receipts	Total Gross Receipts	Revenue @ 3.5% Tax Rate
Manufacturers	10	\$2,500,000	\$25,000,000	\$875,000
Manufacturers	15	\$2,500,000	\$37,500,000	\$1,312,500

As noted in the introduction to this market analysis, however, the only allowable locations for cannabis manufacturers under this ordinance would be within the AV or Airport zone. All parcels within this zone are under FAA oversight which would likely preclude any commercial cannabis uses. For this reason, though the market could likely bear the number of businesses described above, we anticipate that under this Initiative no such businesses would locate in unincorporated Napa County. Thus, the likely cannabis tax revenues from cannabis manufacturers under this Initiative would be \$0.

Cannabis Distributors

The business model for distributors is based on a percentage markup on the price paid to their suppliers. This markup is commonly 20% to 30%. While there is not yet an abundance of data to determine the average gross receipts for distributors, a number of pro-formas for distributors seeking licenses in other jurisdictions have been reviewed. These indicate anticipated gross receipts in the range of \$2 million to \$3 million per year, with an average of \$2.5 million.

Distributors tend to be located in cities that serve either a large, surrounding area of cultivation, or that serve a large surrounding customer base. On the North Coast, distributors tend to be located along the Highway 101 corridor. The Bureau of Cannabis Control has so far licensed 36 distributors in Sonoma County, 31 in Mendocino County, 3 in Lake County and 9 in Solano County. Many of these distributors would be well-positioned to serve businesses in Napa County. As a very general figure, the number of cannabis distributors in a county tends to be 1/3 of the number of all other cannabis licenses, combined.

Cannabis Distributors				
License Type	# of Licenses	Avg Gross Receipts	Total Gross Receipts	Revenue @ 3.5% Tax Rate
Distributors	14	\$2,000,000	\$28,000,000	\$980,000
Distributors	24	\$2,000,000	\$48,000,000	\$1,680,000

Based on our estimates of the number of licenses for other cannabis business types, we anticipate that Napa County could support between 14 and 24 distributors. Applying the 3.5% tax rate from the Initiative would generate between \$980,000 and \$1,680,000 per year in revenue for the County.

However, as noted in the introduction to this market analysis, the only allowable locations for cannabis distributors under this ordinance would be within the AV or Airport zone. All parcels within this zone are under FAA oversight which would likely preclude any commercial cannabis uses. For this reason, though the market could likely bear the number of businesses described above, we anticipate that under this Initiative no such businesses would locate in unincorporated Napa County. Thus, the likely cannabis tax revenues from cannabis distributors under this Initiative would be \$0.

Testing Laboratories

The Bureau of Cannabis Control has so far only issued licenses for 34 testing laboratories in all of California. These laboratories tend to be located in areas that serve a large amount of commercial cannabis activity such as Alameda, Los Angeles and Riverside counties. There are currently 2 licensed testing laboratories in Santa Rosa and 1 in Novato, any of which could reasonably serve businesses in Napa County. While these existing testing laboratories would not prevent another such facility from locating within Napa County, we think the prospect is somewhat unlikely unless and until the local industry reaches a certain critical mass that would warrant such a facility. We also note that the only locations for testing laboratories allowed by the Initiative (the AV zone) would likely be precluded due to FAA oversight. For these reasons, we have not included any cannabis testing facilities in our estimate of potential revenues.

Cannabis Cultivation

The cannabis cultivation market in California has already exceeded its saturation point many times over. As of July 30th, 2019, CalCannabis has issued 12,087 licenses for cultivation, nurseries and processors. Taken at face value, these licenses would cover 2,914 acres and would have the capacity to grow over 27 million pounds of cannabis per year, which is more than 10 times more than the entire state consumes. However, the majority of these were temporary licenses which have since expired, leaving just 2,619 active cultivation licenses. Though this is a significant reduction, these active licenses still amount to 629 acres of cultivation area with the capacity to produce 5.7 million pounds of cannabis, or twice as much as the state consumes.

Even Santa Barbara County has seen a significant decline in cultivation, from 3,704 licenses and 865 acres down to 845 licenses and 194 acres (the County is still processing additional permits). Santa Barbara Assistant CAO Dennis Bozanich believes this represents a market correction as the industry there seeks to “right-size” itself. The industry there has also largely migrated from the formerly-vacant cut-flower greenhouses on the coastal plain to outdoor cultivation inland.

Distribution of State Cultivation Licenses Among Counties		
County	Number of Licenses	% of Licenses
Alameda County	31	1.20%
Calaveras County	1	0.04%
Colusa County	1	0.04%
Contra Costa County	2	0.08%
Humboldt County	647	24.96%
Kern County	2	0.08%
Lake County	36	1.39%
Los Angeles County	67	2.58%
Mendocino County	304	11.73%
Monterey County	267	10.30%
Orange County	1	0.04%
Riverside County	40	1.54%
Sacramento County	27	1.04%
San Benito County	2	0.08%
San Bernardino County	23	0.89%
San Diego County	1	0.04%
San Francisco County	10	0.39%
San Luis Obispo County	14	0.54%
San Mateo County	6	0.23%
Santa Barbara County	845	32.60%
Santa Clara County	12	0.46%
Santa Cruz County	25	0.96%
Shasta County	3	0.12%
Siskiyou County	1	0.04%
Sonoma County	50	1.93%
Stanislaus County	8	0.31%
Trinity County	104	4.01%
Tulare County	3	0.12%
Yolo County	59	2.28%
TOTAL LICENSES	2,592	100.00%

Both Santa Barbara County and Humboldt County still have large numbers of licenses, followed by Mendocino County and Monterey County, but these appear to be outliers due to unique circumstances for each. Humboldt County and Mendocino County both had significant cannabis industries before legalization, with significant numbers of unpermitted cannabis cultivation sites. Humboldt County alone was estimated to have over 10,000 separate cultivation sites.^[1] The numbers in those two counties represent a small percentage of those growers seeking to become legal, and a smaller percentage succeeding. Both Santa Barbara County and Monterey County saw a huge influx of entrepreneurs who believed the vacant cut-flower greenhouses would be perfect for cannabis, and were welcomed by owners of those dormant greenhouses who saw an opportunity for a new industry. It would appear that

they are learning the same issues about mold and humidity that have also been learned in places like Monterey and Half Moon Bay. All of these regions were “first movers” who overshot the size of the market.

Though cultivation sites can range in size, the average in all comparable counties other than Santa Barbara is around half an acre or less. If Napa County had the same 15 acres of total cultivation as Sonoma County,¹⁴ it would be equal to 0.034% of Napa’s 45,000 acres of vineyards, and .007% of the total 225,300 acre Napa AVA (American Viticultural Area).^{lxxxix} Even if Napa County experienced a rush of cultivation equaling the following five counties combined, it would still equal approximately 1% of the County’s vineyard acreage.

Cultivation Licenses in Comparable Counties									
County		Number of Businesses ¹	Number of Licenses ¹	Combined Acres	Average Acres per Business	Number of Licenses by Cultivation Type			
						Outdoor	Indoor	Mixed-light	Nursery/Processor
Humboldt	Total	1,028	2,610	733	0.71	1,147	27	1,371	65
	Active	375	647	177	0.47	255	6	367	19
Mendocino	Total	752	1,363	233	0.31	542	40	649	132
	Active	254	304	53	0.21	156	8	122	18
Lake	Total	55	131	57	1.04	98	0	28	5
	Active	25	36	16	0.64	30	0	4	2
Sonoma	Total	129	210	69	0.53	106	64	21	19
	Active	39	50	15	0.40	23	17	5	5
Santa Barbara	Total	171	3,704	865	5.06	2,151	20	1,378	155
	Active	68	845	194	2.86	446	3	355	41

¹Neither the number of businesses nor the number of licenses indicates the number of locations. Each business may cultivate at numerous locations, each of which may hold numerous licenses. In addition, these numbers do not show businesses that may currently be in the licensing process.

²Acres assumes each licensee cultivates the maximum square footage allowable under that license type.

Under both the Initiative and current California law, cannabis growers located anywhere within the County would gain the same marketable benefit of being able to label their product as being from Napa County, without regard to whether it is grown in the valley, on the hillsides, or in any of the 16 nested AVAs.

Based on this analysis, it is reasonable to anticipate that Napa County could attract a range of cultivation between what is actively licensed in neighboring Sonoma County (50 licenses) and what is currently proposed in Sonoma County for outdoor cultivation (approximately 100 licenses). Sonoma County is similar to Napa County because of its nearby location, similar climate and topography, and wine industry. However, Sonoma County is more than twice the size of Napa County and has more than three times the population. It is common in the State for cultivators to hold multiple licenses on a single property, so the 50 to 100 licenses likely would apply to a range of 32 to 64 separate parcels. As a result, the Initiative likely would result in up to 32 to 64 acres of commercial cannabis cultivation, most of it

¹⁴ While these figures are accurate, we note that they are only a momentary snapshot of active licenses and do not capture additional cultivation businesses or locations that may be in the licensing process.

classified as outdoor cultivation, as well as accessory cannabis processing in existing or new structures of less than 2,500 square feet.

Statewide, the average cultivation site is 0.51 acres. As noted above, excluding Santa Barbara County, the average size in all comparable counties is around half an acre or less. Napa County is different than other counties, in that it appears to lack significant numbers of existing, illegal cultivation sites that would now seek State licenses and local permits. Future applicants in Napa County would likely be seeking to cultivate cannabis for the first time, and would be incentivized to cultivate up to the maximum one acre authorized by the Initiative. If future cultivation sites in Napa County instead match the statewide average of 0.51, however, total cultivation acreage in Napa County would be 16 and 32 acres.

The County’s parcel inventory identifies 4,173 appropriately zoned parcels, excluding those that have existing wineries or that are owned by public agencies. For purposes of our analysis, we have assumed that parcels touched by any of these setbacks may be problematic and less suitable for cannabis cultivation. When these parcels are excluded, the number of appropriate sites comes down to 660 parcels with a total area of 71,721 acres.

Summary of Allowable Parcels for Cultivation	
PARCEL COUNTS	
Total # of parcels	4,173
Total acres	300,895
Unconstrained parcels	660
Unconstrained acres	71,721
Parcels in AP zone	727
Parcels in AW zone	3,442
Touched by 1000' park buffer	147
Touched by 1000' school buffer	57
Touched by 500' residence buffer	3,301
Touched by 600' road buffer	667
Touched by 300' road buffer	1,691
PARCEL SIZES (acres)	
Min. parcel size	10.0
Max. parcel size	1,105.2
Mean parcel size	72.1
Adjusted mean parcel size	55.8
Parcel inventory excludes AV zone, parcels with existing wineries, and parcels owned by public agencies.	

To analyze the attractiveness of these parcels for the cannabis industry, we conducted a survey of 100 currently available parcels in Napa County using online real estate listings.^{lxxxvii} We examined the pictures and description for each property to determine whether they appeared to be appropriate for cannabis cultivation, including an appropriate greenhouse site, water and access to electricity. We found 18 such properties that appear to be included in the inventory of appropriately zoned, unconstrained parcels.

These properties ranged in size from 11.6 acres up to 401 acres. The price per acre ranged from a low of \$1,954 to a high of \$231,697 per acre, with an average price of \$47,244 per acre. When we removed three outliers, the price range narrowed significantly from a low of \$15,118 per acre to a high of \$87,106 per acre, with an average price of \$44,086 per acre.

For comparison purposes, we conducted a similar survey of 100 available properties sites in Sonoma County. We found 20 properties that

appeared to be similar in size, zoning and other characteristics to our sample set in Napa. These Sonoma properties ranged in size from 15 acres up to 82.6 acres, and ranged in price from \$1,687 per acre up to \$345,000 per acre, with an average of \$90,924 per acre. When we removed 4 outliers from this group, the price range came down to from \$1,067 per acre to \$98,333 per acre, with an average of \$61,084.

Somewhat surprisingly, the prices for appropriate and available properties in Napa County compared favorably to similar properties we found in Sonoma County. In addition, the nature of the properties we identified in Napa County appeared to be better suited for cannabis cultivation. The Napa properties were most commonly located in the hills above the valley floor, where they would generate fewer conflicts with neighboring uses, but were still in reasonable proximity to needed services and included at least one acre of relatively flat land that would accommodate hoop structures.

From our analysis, we believe it is reasonable to anticipate that Napa County could attract a level of cultivation similar to the amount currently licensed in neighboring Sonoma County, and potentially higher than that amount. Sonoma County limits cultivation to 1 acre per operator County-wide, while the Napa Initiative would limit cultivation to no more than 1 acre per parcel. These limitations would have a similar impact by limiting the size of each individual cultivation operation.

Sonoma County has also been very pro-active in developing regulations that provide clarity and predictability for prospective cannabis businesses, even going so far as to provide an on-line cannabis site evaluation tool to allow prospective applicants to see the potential constraints that may impact or limit their proposed location.^{lxxxiii} However, Sonoma County also requires a minor use permit or a conditional use permit for larger cultivation projects, which may take up to a year or more to process. Permit fees start at \$15,000 for a conditional use permit.

The Napa Initiative, by comparison, does not require any discretionary permit process for many cultivation operations, which eliminates the County's ability to determine the appropriateness of proposed locations. For these reasons, our higher estimate of 100 cannabis cultivation licenses in Napa County may be the better predictor. Though there are currently only 39 cultivation businesses in Sonoma County holding 50 State-issued licenses, there are an additional 104 outdoor cultivation permits currently under review by the County. Should a similar number of cannabis businesses seek to locate in Napa, the County would be virtually powerless to exert any discretion over the number, type or locations.

Our analysis below provides 2 scenarios. The low scenario assumes 50 State licenses located in 32 cultivation sites County-wide. That would generate between 16 and 32 total acres of cultivation. Of these, 26 sites would be outdoor cultivation, likely laid out in rows to accommodate hoop structures. The Initiative only allows mixed-light cultivation in existing greenhouses, and limits the use of artificial light to the hours of 6:00 a.m. to 9:00 p.m. We anticipate that these restrictions will limit the availability of appropriate sites for mixed-light cultivation, as well as limiting the benefits to be gained from using supplemental lighting. Because of this, our model includes only 6 mixed-light cultivation sites. Our high scenario doubles this figure, assuming 100 State licenses located in 64 cultivation sites County-wide, with the same ratio of outdoor and mixed-light cultivation.

The Initiative includes tax rates of \$1 per square foot of outdoor cultivation and \$2 per square foot of mixed light cultivation. Applying these rates to our low estimate, we anticipate that cannabis cultivation pursuant to the Initiative could generate around \$760,000 per year in annual revenue for the County. Applying these same rates to our high estimate would generate double this amount, or around \$1,520,000 in annual revenue for the County.

Summary

As noted in the introduction to this market analysis, the only allowable locations for cannabis retailers, manufacturers, distributors or testing facilities under this ordinance would be within the AV or Airport zone. All parcels within this zone are under FAA oversight which would likely preclude any commercial cannabis uses. For this reason, though the market could likely bear the number of businesses described in this analysis, we anticipate that only businesses to actually find locations under this Initiative would be cultivators. The lack of supporting businesses such as distributors and manufacturers, and the lack of local storefront retailers where Napa tourists could have a direct, tangible purchasing experience, would likely diminish the attractiveness of Napa for cultivators by decreasing both support businesses and marketing options.

Given this, we anticipate that the actual impact of the cannabis industry in Napa County under the Initiative would be limited to cultivation sites of up to 1 acre each, generating a total of around \$760,000 to \$1,520,000 in cannabis tax revenue annually to the County.

D. Impacts on the Wine Industry; Case Studies

Cannabis cultivation could cause a variety of impacts on the existing wine industry, including physical or biological impacts due to incompatibility of the two crops, competition for appropriate land, changes in property values, water conflicts or other effects. To explore these potential impacts, empirical evidence and narrative sources with experience in both industries were consulted. The history of the Napa Valley's famous wine industry was reviewed to provide context to the analysis. Case studies based on this research and interviews is discussed below.

Brief History of the Napa Valley's Wine Industry

Though wine grapes have been planted in California as far back as the late 1700s, Napa Valley's wine industry is generally regarded to have had its start in 1850, when Joseph Osborne began planting his 1,800 acre Oak Knoll vineyard. By 1861 the Napa Valley had already established itself as a prime grape-growing region, thanks to pioneers such as George Yount, Samuel Brannan, John Pratchett and Charles Krug. By the 1890s, there were over 20,000 acres of vineyards in Napa County, and California as a whole was producing more than a million cases of wine per year.^{lxxxiv}

This came crashing down with the passage of the Volstead Act (commonly known as Prohibition) in 1919. While there had been 2,500 licensed wineries across the United States prior to Prohibition, by the time it was lifted in 1933, less than 100 remained. Most grape growers abandoned their vineyards and allowed the vines to die.

Despite Prohibition, research into vineyards and wine making continued through the 1920s, including soil studies and mapping that would eventually lead to the establishment of California's American Viticultural Areas (AVAs) in 1983. This research helped to identify five unique climatic zones for growing wine grapes, and provided recommendations as to which varieties were best suited to each location's soils and climate.

The wine industry's road to recovery after Prohibition was made more difficult by World War II. The reinvestment necessary to resuscitate fallow vineyards was delayed until the mid-1940s, when 6,000 acres were replanted in Napa Valley. By 1950, there were only 15 to 20 wineries in the entire Napa/Sonoma region. When Robert Mondavi opened his winery in Oakville in 1965, it was the first new winery in Napa Valley since Prohibition.

The push to create single-vineyard designated wines began in the early 1970s. In 1971, Milton Eisele began insisting that wineries purchasing grapes from the Eisele Vineyard include the name of his vineyard on the label to let consumers know the source. While this is now commonplace, it was considered revolutionary at the time.

The wine industry in Napa Valley and across California has grown significantly since the end of Prohibition. There were very few grape growers and even fewer wineries in California in 1945. By 1955 there were 360 growers. Through the 1960s and early 1970s the number of growers and wineries actually declined, largely due to consolidation as larger wineries bought up smaller ones. By 1985 there were 712 wineries in California, which increased to 944 by 1995 and to 2,275 by 2005. Today it is estimated that there are close to 4,000 wineries in California.

There are 3,900 wineries in California and 5,900 wine grape growers. California wineries produce 81% of all wine made in the USA, with an estimated value of \$40.2 billion^{lxxxv}. California's wine industry is estimated to provide 325,000 jobs.

Despite its world-renowned reputation as a premium grape growing region, Napa Valley grows only 4% of the wine grapes in California.^{lxxxvi} The Napa Valley Vintners Association notes that there are some 700 grape growers in Napa County and 475 wineries, 95% of which are family owned.^{lxxxvii} Napa's wine industry is estimated to produce an annual economic impact of more than \$9.4 billion locally, and to create or support 44,000 jobs in Napa County.

Inland Desert Nursery

Inland Desert Nursery is a family-owned grapevine nursery in Benton, Washington. The company has been in existence for over 40 years and is the largest grapevine nursery in the state, with over 150 acres of rootstock and scion propagation under cultivation. Inland Valley delivers more than 3,000,000 dormant vines and 600,000 green-grown vines to customers each year.

The company branched into the cannabis industry in 2017 and now operates both a cultivation facility under the name Green Point and a processing facility under the name Inland Desert Concentrates. Green Point cultivates around 600 plants at their 25,000 square-foot facility, which is located about 1 mile from their grapevine facility. They sell cannabis flower both for retail and for concentrates to be processed at their own lab and others. The company is also considering developing a cannabis nursery.

Inland Desert Operations Manager Maddi Early stated *"Ultimately we decided to branch into Cannabis as a way to diversify our operation. It provides both cash flow and labor opportunities for our employees in the off season of the other crops. While it's certainly been challenging in some areas, I do believe there is huge opportunity in Cannabis and Hemp. Especially for folks with experience in conventional farming already"*.

Early stated that Inland Desert has not received any negative feedback or concerns about the compatibility of cannabis and grapes, though she notes that their grapevine and cannabis operations are conducted on separate properties. She also notes that several grape growers in the area are putting in hemp on the same or adjacent properties as their other crops.

Early went on to add *"Any concerns I've heard regarding compatibility have actually been from the cannabis side. There are concerns around putting cannabis plants, or flower producing hemp, in soil that had previously been used for other crops because of potential residual pesticides. For this reason, most all cannabis operations I've seen are planted in pots."*

Francis Ford Coppola

Filmmaker and winemaker Francis Ford Coppola has recently announced that he is venturing into the cannabis industry by launching *The Growers' Series by Francis Ford Coppola*.^{lxxxviii} This new venture is a separate business from the Coppola Winery, as California law does not allow wineries to sell cannabis or cannabis products. Coppola is collaborating with Humboldt Brothers, which cultivates premium cannabis flower in Humboldt County.

Coppola's marketing materials quote him as saying *"Wine and cannabis are two ancient and bounteous gifts of Mother Nature, linked by great care, terroir and temperateness. Expertise making one applies to the other."*

Constellation Brands

Alcoholic beverage giant Constellation Brands made headlines last year when it made a \$4 billion investment in Canopy Growth Corporation, which is believed to be the world's largest cannabis company.^{lxxxix} Canopy Growth was the first federally regulated, licensed, publicly traded cannabis producer in North America, and is traded on the Toronto Stock Exchange^{xc}.

Constellation Brands owns a broad portfolio of beer, wine and spirits brands, including Corona, Pacifico, Ballast Point, Woodbridge, Robert Mondavi, Clos du Bois, Mount Veeder, Mark West, Ravenswood, Svedka Vodka and Paul Masson Brandy. News of Constellation's investment boosted Canopy Growth's stock price by 30%.

It is believed that Constellation's investment is strategic and will position the company to be a first-mover if federal law changes. A joint study by three universities found that counties in states that allow medical cannabis have seen a 15 percent reduction in monthly alcohol sales.^{xcj} Given this, Constellation's investment may present an opportunity to increase sales with cannabis products, likely including cannabis-infused alcoholic beverages in the future.

Santa Barbara County

Santa Barbara County has become the biggest cannabis producing county in California (not including the illegal market). Much of Santa Barbara's initial attractiveness to the cannabis industry was due to the large amount of vacant and available greenhouse infrastructure. Like Salinas and Half Moon Bay, Santa Barbara's temperate coastal climate helped make it an attractive location for the cut flower industry in the United States. However, the cut flower industry took a hit with the passage of the Andean Trade Preference Act in 1991, which gave significant trade advantages to imported flowers from South America with the goal of creating legal alternatives to the cocaine trade. Today, between 50% and 60% of the U.S. cut flower market is sourced from Columbia.

The decline of the cut flower industry left host communities such as Santa Barbara with a surplus of dormant infrastructure that promised easy adaptation to large scale cannabis production. Just as important as the abundant greenhouse space was the wealth of knowledge and experience among those who formerly operated these large-scale nurseries, as well as the financial incentive to find an adaptive reuse. However, cannabis is a very different crop than lettuce or cut flowers.

The same climate that makes Santa Barbara's coastal plain ideal for cut flowers or for cannabis nurseries can be far less attractive for cultivation of flowering cannabis plants. Flowering cannabis is not well suited to humid conditions, which can lead to mold or fungus. Frequent fog limits the amount of natural sunlight available, increasing the need for supplemental light.

The lesser amount of light available necessitates somewhat broader spacing between plants to ensure that the light can penetrate into the canopy. This results in a smaller average yield than we might

expect to see in other areas. These conditions limit both the per-cycle yield and the number of harvests possible, and ultimately produce a lower-grade product. Many greenhouse cultivators we have spoken with have noted that the cannabis they are producing is being sold into the lower-price “commercial grade” market for extraction of cannabis oil. While dried flower can sell for around \$1,000 per pound, cannabis sold for extraction might sell for \$500 per pound or less.

The inherent drawbacks of a coastal climate and significant pushback from neighboring communities are believed to be the primary reasons that Santa Barbara’s cannabis cultivation industry has been migrating from greenhouses in Carpinteria to hoop structures in the inland portions of the County, such as the Santa Ynez Valley.^{xcii}

Along with this migration has come a reduction in the number of cannabis cultivation operations in the County. CDFA’s CalCannabis division has issued a total of 3,704 licenses for cultivation, nurseries and processors in Santa Barbara County, covering some 845 acres. However, this number is deceptive, as the vast majority of these were temporary or provisional licenses, most of which have not succeeded in converting to active, annual licenses. As of July 30, 2019, CalCannabis shows just 865 active licenses in Santa Barbara County, covering a maximum of 194 acres. The number of licensees has declined, too, from 155 separate businesses down to just 41. The largest of these, Central Coast Ag Farming LLC, holds 98 licenses covering 22 acres.

Santa Barbara County Assistant CAO Dennis Bozanich believes this reduction represents a market correction as the industry there seeks to “right-size” itself. Santa Barbara County initially saw a huge influx of entrepreneurs, many of whom were new to the cannabis industry, who believed the vacant cut-flower greenhouses would be perfect for cannabis. It would appear that growers in Santa Barbara are learning the same issues about mold and humidity that have also been learned in Monterey. Both of these regions were “first movers” who overshot the size of the market.

This movement toward inland areas has put Santa Barbara’s cannabis industry in closer proximity to the County’s wine grape growers. Much of the opposition to cannabis farms has been focused on odor issues and the visual impact of hoop structures, but grape growers have also expressed concerns about increasing real estate prices, primarily for processing facilities. Matt Kettmann, Senior Editor for The Santa Barbara Independent, reports that *“a lot of bigger facilities, where wineries were making their wine for a decade or so, are being sold to cannabis processors for double, triple the price.”*^{xciii}

Such inflated prices are likely a temporary aberration driven by a sudden imbalance between supply and demand. For years, the supply of appropriate properties and facilities for wineries was likely in balance with the demand for such facilities. The sudden influx of cannabis businesses created a surge in demand, for which the supply of appropriate sites has not caught up. In a ‘seller’s market’ such as this, property owners have responded predictably by increasing their lease rates. While many cannabis businesses may currently be flush with cash and able to afford these premium prices, we predict that prices will eventually fall and stabilize due to both competition within the cannabis industry and a likely increase in available sites to meet the demand.

Summary

The introduction of legal commercial cannabis creates significant concerns over potential impacts on Napa's world-renowned wine industry. While many of these concerns are informed by experiences in other counties, some may be rooted in the still-shifting attitudes toward cannabis and the fledgling cannabis industry.

California's cannabis industry is still in its infancy. The cannabis industry is having to reinvent itself as a newly-legal business. Processing methods and the range of manufactured cannabis products are still being developed, leaving room for innovation, business development and job growth.

The expected numbers of cultivation sites and their limited size (less than 1 acre) makes the physical footprint of this industry very small in relation to the existing wine industry. We anticipate that the combined acreage of all cultivation in the County would likely be on the scale of neighboring Sonoma County.

From our analysis, we believe that cannabis businesses will have no reason to locate in Napa County unless they have a desire to market their product in a way that builds on and is compatible with the Napa Valley image. Just as Napa's wines amount to just 4% of the overall California market, we anticipate that Napa Valley cannabis would seek to fill a similar niche for low-volume, premium cannabis.

E. Legal and Regulatory Background for California

The legal and regulatory status of cannabis in the State of California has been continually evolving ever since the passage of Proposition 215, the Compassionate Use Act of 1996 (CUA), which decriminalized the use, possession and cultivation of cannabis for qualifying patients and their primary caregivers when such use has been recommended by a physician. The CUA did not create any regulatory program to guide implementation, nor did it provide any guidelines for local jurisdictions to establish their own regulations. The lack of legal and regulatory certainty for medical marijuana (or cannabis) continued for nearly 20 years, until the passage of the Medical Cannabis Regulation and Safety Act (MCRSA) in October of 2015. MCRSA created a State licensing program for commercial medical cannabis activities, while allowing counties and cities to maintain local regulatory authority. MCRSA required that the State would not issue a license without first receiving authorization by the applicable local jurisdiction.

On November 8, 2016, the voters of the State of California approved Proposition 64, the Adult Use of Marijuana Act (AUMA), which allows adults 21 years of age or older to legally grow, possess, and use marijuana for personal, non-medical purposes, with certain restrictions. AUMA requires the State to regulate non-medical marijuana businesses and tax the growing and selling of medical and nonmedical marijuana. Cities and counties may also regulate non-medical marijuana businesses by requiring them to obtain local permits or restricting where they may be located. Cities and counties may also completely ban marijuana related businesses if they so choose. Cities and counties cannot ban transport of cannabis products through their jurisdictions, however.

On June 27, 2017, the Legislature enacted SB 94, which repealed MCRSA and incorporated certain provisions of MCRSA into the licensing provisions of AUMA. These consolidated provisions are now known as the Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA). MAUCRSA revised references to “marijuana” or “medical marijuana” in existing law to instead refer to “cannabis” or “medicinal cannabis,” respectively. MAUCRSA generally imposes the same requirements on both commercial medicinal and commercial adult-use cannabis activity, with certain exceptions. MAUCRSA also made a fundamental change to the local control provisions. Under MCRSA, an applicant could not obtain a State license until they had a local permit. Under MAUCRSA, an applicant for a State license does not have to first obtain a local permit, but they cannot be in violation of any local ordinance or regulations. The State licensing agency shall contact the local jurisdiction to see whether the applicant has a permit or is in violation of local regulations, but if the local jurisdiction does not respond within 60 days, then the applicant will be presumed to be in compliance and the State license will be issued.

On September 16, 2017, Governor Brown signed AB 133, which makes a number of major and minor “clean up” changes to the State’s regulations, most notably regarding vertical integration. MAUCRSA authorizes a person to apply for and be issued more than one license only if the licensed premises are separate and distinct. With the passage of AB 133, a person or business may co-locate multiple license types on the same premises, allowing a cultivator to process, manufacture or distribute their own product from a single business location. This includes the allowance to cultivate, manufacture, distribute or sell cannabis for both medical and adult use from a single location. Only licensees of cannabis testing operations may not hold more than one kind of license. However, these allowances are still subject to local land use authority, so anyone seeking to operate two or more license types from a single location would be prohibited from doing so unless local regulations allow both within the same zone.

AUMA, and its successor MAUCRSA, required three state agencies, the Bureau of Cannabis Control, the California Department of Food and Agriculture, and the California Department of Public Health, to permit commercial cannabis licensees and to adopt regulations for the cannabis industry. On January 16, 2019, all three agencies announced that the state’s Office of Administrative Law officially approved state regulations, which took immediate effect and replaced emergency regulations that had been in effect since 2017. The final regulations were largely similar to the emergency regulations, but somewhat controversially, Section 5416(d) of the Bureau of Cannabis Control regulations authorizes deliveries of cannabis products into any city or county in the state, even if a city or county has banned commercial deliveries.

The table on the following page provides a detailed overview of the license types available under MAUCRSA and state cannabis regulations:

State License Types Under MAUCRSA					
Type	Activity	Description	Details	Licensing Agency	Notes
1	Cultivation	Outdoor; Specialty, Small	Up to 5,000 sf, or 50 plants on non-contiguous plots	CDFA	A, B
1A	Cultivation	Indoor; Specialty, Small	501 sf - 5,000 sf	CDFA	A, B
1B	Cultivation	Mixed-Light; Specialty, Small	2,501 sf - 5,000 sf	CDFA	A, B
1C	Cultivation	Outdoor/indoor/mixed; Specialty Cottage, Small	Up to 25 plants outdoor; up to 2,500 sf mixed light; up to 500 sf indoor	CDFA	A, B
2	Cultivation	Outdoor; Small	5,001 sf - 10,000 sf	CDFA	A, B
2A	Cultivation	Indoor; Small	5,001 sf - 10,000 sf	CDFA	A, B
2B	Cultivation	Mixed Light, Small	5,001 sf - 10,000 sf	CDFA	A, B
3	Cultivation	Outdoor; Medium	10,001 sf - one acre	CDFA	A, B, C
3A	Cultivation	Indoor; Medium	10,001 sf - 22,000 sf	CDFA	A, B, C
3B	Cultivation	Mixed-Light; Medium	10,001 sf - 22,000 sf	CDFA	A, B, C
4	Cultivation	Nursery		CDFA	A, B
-	Cultivation	Processor	Conducts only trimming, drying, curing, grading and packaging of cannabis	CDFA	A, B, E
5	Cultivation	Outdoor; Large	Greater than 22,000 sf	CDFA	A, B, D
5A	Cultivation	Indoor; Large	Greater than 22,000 sf	CDFA	A, B, D
5B	Cultivation	Mixed-Light; Large	Greater than 22,000 sf	CDFA	A, B, D
6	Manufacturer 1	Extraction; Non-volatile	Allows infusion, packaging and labeling	OMCS	A, B
7	Manufacturer 2	Extraction; Volatile	Allows infusion, packaging and labeling, plus non-volatile extraction	OMCS	A, B
N	Manufacturer	Infusion for Edibles, Topicals	No extraction allowed	OMCS	A, B, E
P	Manufacturer	Packaging and Labeling	No extraction allowed	OMCS	A, B, E
S	Manufacturer	Shared-use manufacturer	Manufacturing in a shared-use facility	OMCS	A, B, E
8	Testing		Shall not hold any other license type	BCC	A
9	Retailer	Non-storefront retail delivery	Retail delivery without a storefront	BCC	A, F
10	Retailer	Retail sale and delivery		BCC	A, B
11	Distributor			BCC	A, B
12	Microbusiness	Cultivation, Manufacturer 1, Distributor and Retailer	< 10,000 sf of cultivation; must meet requirements for all license types	BCC	A, B
CDFA California Department of Food and Agriculture					
OMCS California Department of Public Health, Office of Manufactured Cannabis Safety					
BCC Bureau of Cannabis Control					
A All license types valid for 12 months and must be renewed annually					
B All license types except Type 8 Testing must be designated "A" (Adult Use), "M" (Medical) or "A/M" (Both)					
C CDFA shall limit the number of licenses allowed of this type					
D No Type 5 licenses shall be issued before January 1, 2023					
E Established through rulemaking process					

F. State Tax Considerations

Any local taxes will be in addition to those taxes applied through the Adult Use of Marijuana Act (AUMA), which imposes both a 15% excise tax on purchases of cannabis or cannabis products and a separate cultivation tax on harvested cannabis that enters the commercial market, as well as sales tax. Taxes are most commonly expressed as a percent of price or value, so some method of conversion is necessary to allow development of an appropriate cultivation tax based on square footage.

The State tax rate for cultivation is set at \$9.25 per ounce of dried flower or \$2.75 per ounce of dried leaf. Because these rates are set per ounce, rather than as a percentage of price paid, the tax is the same whether the cultivator is producing commercial-grade cannabis at \$500 per pound or top-grade cannabis at \$2,500 per pound. The cultivator is generally responsible for payment of the tax, though that responsibility may be passed along to either a manufacturer or distributor via invoice at the time the product is first sold or transferred. The distributor is responsible for collecting the tax from the cultivator upon entry into the commercial market, and remitting it to the California Department of Tax and Fee Administration.

Cumulative Cannabis Taxes			
Category	Amount	Increase	Cumulative Price
Producer Price	\$750	\$750	\$750
State Cultivation Tax	\$9.25/oz	\$148	\$898
Local Tax	1.30%	\$10	\$908
Batch Testing	\$50/lb, + 0.50%	\$55	\$963
Wholesale Price w/ Taxes		\$963	
Total Tax at Wholesale		\$213	
Tax as %		28.37%	
Distributor Markup	20.00%	\$193	\$1,155
Local Tax	3.50%	\$40	\$1,196
Total Distributor Price		\$1,196	
Total Taxes at Distributor		\$253	
Total Tax as %		21.17%	
Retailer Markup	100.00%	\$1,196	\$2,391
Local Tax	3.50%	\$84	\$2,475
State Excise Tax	15.00%	\$359	\$2,834
Total Retailer Price		\$2,834	
Total Taxes at Retail		\$696	
Total Tax as %		24.55%	
CA Sales Tax (non-medical)	6.25%	\$177	\$3,011
Local Sales Tax	1.50%	\$43	\$3,054
Total Taxes at Retail		\$915	
Total Tax as %		29.97%	
Total Local Tax		5.78%	\$176.40

The cultivation tax of \$9.25 per ounce of dried flower is equivalent to \$148 per pound. Just a year ago, one could have assumed an average wholesale market price for dried flower of around \$1,480 per pound, which would make that \$148 equal to 10% of value. Since then, however, prices have plummeted. Competitive market forces enabled by legalization have brought the average price for indoor cannabis down to around \$1,000 per pound, or even less (cannabis prices vary greatly based on quality of the product).

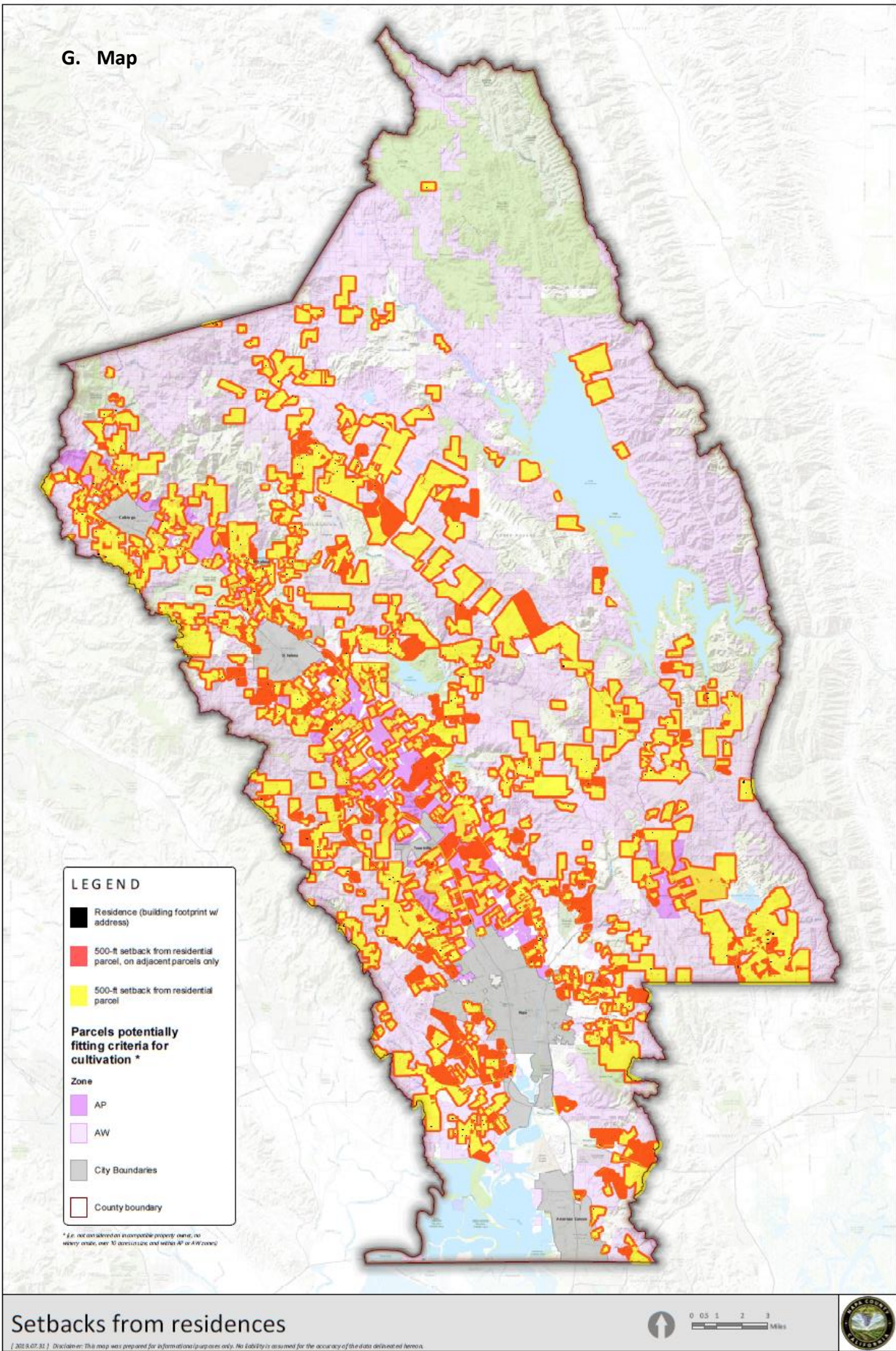
Conversations with cannabis industry trade groups suggest that the cumulative tax rate on the end product should remain at or around 30%. Higher rates create too much price disparity between legal and illegal cannabis, making it harder for the regulated industry to compete with the illegal market. Higher

local tax rates can also make a county or city less attractive to the industry, especially for manufacturers and distributors, which have greater flexibility in choosing where to locate.

The above table shows how the cumulative tax rate on adult-use cannabis builds as the product moves towards market. The value of the product increases as it moves through the supply chain towards market, with manufacturers, distributors and retailers each adding their own markup. Testing laboratories do not add a direct markup to the product, but the cost of testing and the loss of a small test sample can add around \$55 per pound. Any or all of these activities may be taxed.

This model assumes a hypothetical case where cultivation, manufacturing, testing, distribution and retail sale all happen within the same jurisdiction and are thus all subject to that jurisdiction's tax rates. In actuality, this is unlikely to be the case. Manufacturers may work with product purchased from anywhere in California, and may sell their product to retailers elsewhere, as well. The cumulative tax burden for any product at retail sale will almost always include a variety of tax rates from numerous jurisdictions.

G. Map



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