



APPROACHES TO LEGAL COMMERCIAL CANNABIS CULTIVATION BY RURAL AND SUBURBAN COUNTIES IN CALIFORNIA

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Executive Summary

California has a long history of cannabis cultivation, starting from the “Flower Child” days of the 1960s. It was the first state in the nation to legalize Medical Marijuana in 1996. However, it has also been a laggard recently, taking more than 20 years to pass laws implementing the medical marijuana market and, in November 2016, becoming the sixth state in the US to legalize cannabis for recreational (adult) use. Recent projections have the legal market in California at \$1.6 billion in the first year, growing to \$6.5 billion in 2020. With the looming deadline of January 1, 2018 to license businesses from cultivators, manufacturers, distributors, testing labs and retailers, there has been a rush to both set up businesses and develop the regulations to guide them.

Amid the headlong confusion of what is known as the “Green Rush”, California counties have been working to determine their appetite for this new industry and create the regulatory framework necessary to support, or discourage it. While the state law allows that individuals be able to grow a limited amount of cannabis for personal use, the counties have wide discretion as to what commercial cultivation they will allow, and where they will allow it to happen. Cannabis is viewed as an agricultural product, and counties must define how it fits into their existing zones and programs. There are a myriad of complex issues that must be addressed from water use to infrastructure development to odor control and security. Environmental concerns are of paramount importance given the immense damage that illegal cultivation has wrought on the landscape. Recognition of this reality has lead counties, and state agencies, to seek to define a pathway for these illegal and quasi-legal cultivators to become legitimate, arduous as the process may be.

We identify six approaches that counties are taking with regards to cultivation and the industry in general. There are important differences in the areas of permitting, taxation and the traceability of product and how they are implemented. A common concern is protection of the character of their communities. Some counties have unique approaches to branding while others see opportunity to revitalize abandoned infrastructure. Some counties are staunchly resisting the industry while most are sitting on the sidelines. One is reevaluating after voters made their feelings known.

California has always been the largest volume producer of cannabis of any state in the nation. Production in 2016 was estimated to be 13.5 million pounds. Of that 2.5 million pounds was consumed in state while 11 million pounds was exported to other states and countries¹. See Appendix C. Implementing a new legalized industry in a state where it has long operated in the shadows, and doing so within one year, is a daunting task. Much is in flux and there are many unknowns and much uncertainty. This is true not only of the regulatory environment, but also of the industry and the participants. The framework and current status that we outline here will change often and significantly before any sense of stability takes hold.

Background: How we got here

In 1996, California voters approved Proposition 215, the California Compassionate Use Act, and California became the first state in the nation to legally allow the cultivation and use of medical cannabis. However, it took almost 20 years before the regulatory framework to support Proposition 215 was put in place through a series of measures passed by the California Legislature in 2015 and 2016. Collectively, these were known as the Medical Cannabis Regulation and Safety Act (MCRSA).

Among other things, these measures set up the Bureau of Medical Cannabis Regulation to oversee commercial cultivation, manufacture, retail sale, transport, distribution, delivery, and testing of medical cannabis in the state. Local governments were given the power to issue local permits and licenses as defined by the Bureau.

While the MCRSA went into effect starting in January 2016, the specific rulemaking and infrastructure was not expected to be complete until January 2018. The law also stated that if counties or municipalities did not have regulations in place by March 1, 2016, the State regulations would be in effect. That led to a rush of ‘urgency’ measures, many of which were quite restrictive. Most of these ordinances and codes are still in place. Some counties, mostly where illegal cannabis production was already prevalent, proceeded with more permissive regulations, seeking to bring the industry into compliant status (and receive tax money to help fund regulatory efforts).

In November 2016, California voters approved Proposition 64, the Control, Regulate and Tax Adult Use of Marijuana Act (AUMA). It, too, is slated to go into effect on January 2018 and anticipates that the state will begin issuing licenses for the Adult Use market at that time. Thus, two “markets” are now slated to become legal, regulated and licensed on January 1, 2018: Medical Use and Adult Use.

Cannabis or Marijuana?

Cannabis is the technically correct name given the genus of the base plant: Cannabis Sativa, Indica and Ruderalis.

Marijuana was a Mexican folk term which first came into common use in the 1930s. It is associated with prohibition and fear campaigns. It is considered outdated and negative in an era of legalized use.

Cannabis is the official term used in all aspects of the commercial, legal and regulatory aspects of the California program.

In the 2017 California legislative session, over 60 bills were introduced to address various issues in both the Medical and Adult Use markets. The main effort was to align the regulatory framework for both markets. Senate Bill 94 was passed by the legislature on June 15, 2017 and signed by the Governor on June 27, 2017. The Bill also eliminated both MCRSA and AUMA and introduced “Medicinal and Adult-Use Cannabis Regulation and Safety Act” (MAUCRSA)ⁱ.

ⁱ Since regulations have not been posted under SB94, we will continue to refer to AUMA and MCRSA in this report.

The passage of this bill requires the state to revise the proposed rules for medical cannabis, first published in April 27, 2017, to accommodate MCRSA. These new rules are expected to be available by Fall of 2017. The state still expects to meet the January 1, 2018 deadline because the Draft Programmatic Environmental Impact Report (PTEIR), published June 15, 2017, was written to evaluate both markets.

As the state started moving toward setting the rules for a medical market and hope was high for a legal adult market, there was a strong motivation for cultivators to become established as quickly as possible. With a projected value of \$6.5 billion², the California legal cannabis market would be the largest in the country. Thus, there was little desire to wait for government to define the rules. This has led many cultivators to acquire land and set up shop with little or no regard to zoning, environmental or logistical considerations. There was an expectation that ‘facts on the ground’ would dictate the regulatory approach. The new cultivation operations were in addition to the already extensive number of illegal cultivation sitesⁱⁱ already in existence. For example, there were 4,428 cultivation sites in Humboldt County alone in 2013³. Since the passage of MCRSA in 2015, this activity has turned into a flood – some call it a “Green Rush”, analogous to the “Gold Rush” of 1849.

Local entities in the prime growing areas have been working feverishly to define the local regulations. California state level regulations generally give a great deal of deference to local rules and ordinances. Before processing any license application, the State will first check with the city or county to confirm whether the applicant is in compliance with local regulations, if any. If they are not in compliance, the State will not issue a license.

In addition to setting the regulatory framework and infrastructure, local entities have been struggling with the process by which they allow existing (illegal or quasilegal) grows to ‘come in from the cold’ and become legal. Some localities, which don’t have the extent of existing grows, see opportunity and are recruiting growers to set up shop with assistance, infrastructure and a cleaner set of regulations.

Scope and method of the report

This report seeks to outline the current status of land use and other regulatory approaches to cannabis legalization in rural areas of California. In addition, we will discuss other considerations, such as land values, environmental mitigation and local & community resources.

ⁱⁱ The term “grow” is often used to refer to a cultivation site for cannabis. It is a bit more of a casual term for the same activity. In this report “grow” and “cultivation site” are used interchangeably.

THC and CBD

Cannabidiol (CBD) and tetrahydrocannabinol (THC) are both cannabinoids and both exist in all cannabis.

THC is psychoactive and is most responsible for the ‘high’ or euphoric state.

CBD is non-psychoactive which makes it a better fit for medical purposes. It can also reduce anxiety.

Strains with high THC are targeted toward the recreational market, while strains with high CBD, and low THC, are targeted toward the medical market.

As this is a very rapidly evolving and complex situation, this report can only be a summary of the close-to-current situation. In addition, we seek to convey some of the thoughts regarding possible future directions where this topic may lead.

In keeping with Dovetail's emphasis on natural resource, agriculture and land use issues, we will focus primarily on rural communities and outdoor or indoor/outdoor (mixed light) commercial cultivators. These are usually sited in the unincorporated areas of most counties. Cities can, and do, regulate completely differently than the counties they are in. For example, while San Bernardino County has a ban on all commercial cultivation, the City of Adelanto has set up a special industrial zone for commercial indoor cultivation. Commercial indoor grow operations are primarily located in urban industrial areas. While they certainly are part of the overall cannabis supply equation, their land use consideration and impacts are outside of the scope of this report.

Cultivation is but one of the myriad of issues developing as the legal markets are defined and developed. Other issues, such as manufacturing, distribution, retail and vertical integration are better covered by others. Other states may have similar programs but identifying them and comparing them to California's program is also not in the scope of this report.

We conducted a survey of the approaches to regulation and permitting from 51 counties (out of 58) in California. These include Rural (29), Suburban (15) and Urban (7) counties (detailed in Appendix B). Information was gathered from county websites and publications and followed up with selected interviews with county officials. Information was also gathered from interviews with people involved with cannabis legalization and regulation supplemented by literature searches. As this is a nascent, and still federally illegal, industry, there is little publicly published data available.

State Level Licensing and Regulation

MCRSA set up three licensing and regulatory agencies to oversee the Medical Cannabis Industry. It is expected that these same agencies will continue their same function under MAUCRSA, albeit with some minor name changes.

- The Bureau of Medical Cannabis Regulation is housed within the California Department of Consumer Affairs. It licenses testing labs, transporters, distributors, dispensaries, and microbusinesses.
- CalCannabis is housed within the California Department of Food and Agriculture. It licenses cannabis cultivators and establishes a track-and-trace system.
- The Office of Manufactured Cannabis Safety (OMCS) is housed within the California Department of Public Health. It licenses manufacturers of cannabis products, such as edibles.

MCRSA defined 11 different commercial cultivation license types, as show in Table 1, below. They are segmented by setting (indoor, outdoor, mixed light) and canopy size. Many greenhouse growing operations are classified as "mixed light" in that they often have artificial lighting to augment natural light. Canopy size is defined as the area, measured in square feet, within clearly identifiable boundaries that contain mature plants at any point in time, including all of the space(s) within the boundaries.

AUMA adopted the MCRSA license types and created three additional commercial cultivation types for large cultivators.

Table 1. Commercial Cultivation State of California License Types defined by MCRSA and AUMA

	Outdoor (no artificial light)	Indoor (exclusively artificial light)	Mixed Light (Combo of natural and supplemental artificial light)
<i>Special Cottage</i>	Type C 25 mature plants	Type CA less than 500 sq. ft.	Type C B 2,500 sq. ft.. or less
<i>Special Cultivator</i>	Type 1 Up to 5,000 sq. ft. or up to 50 mature plants on noncontiguous plots	Type 1A Up to 5,000 sq. ft.	Type 1B Up to 5,000 sq. ft.
<i>Small Cultivator</i>	Type 2 5,001 – 10,000 sq. ft.	Type 2A 5,001 – 10,000 sq. ft.	Type 2B 5,001 – 10,000 sq. ft.
<i>Medium Cultivator</i>	Type 3 10,001 sq.ft. to 1 acre	Type 3A 10,001 – 22,000 sq. ft	Type 3B 10,001 – 22,000 sq. ft
<i>Nursery</i>	Type 4 Up to 1 acre	Type 4 Up to 1 acre	Type 4 Up to 1 acre
<i>Large Cultivator</i> (Not permitted until Jan 1, 2023)	Type 5 Over 1 acre	Type 5A Over 22,000 sq. ft	Type 5B Over 22,000 sq. ft

The MCRSA regulations proposed by CalCannabis requires that prospective licensees pay an application fee, which ranges from \$60 (Nursery: 4) to \$4,620 (Medium Indoor: 3A) and post a surety bond of at least \$5,000. In addition, cultivators must pay an annual license fee, which ranges from \$560 (Nursery: 4) to \$38,350 (Medium Indoor: 3A).

The Medicinal and Adult-Use Cannabis Regulation and Safety Act set the following initial taxes on cannabis cultivation: \$9.25 per dry-weight ounce for cannabis flowers and \$2.75 per dry-weight ounce for cannabis leaves. All proceeds from this cultivation tax, the excise tax on retail sales, and any other taxes and fees are deposited into California Cannabis Tax Fund. This Fund finances state agencies, and some other functions (like university research) in the control, regulation and taxation of cannabis.

Before applying for state licenses on January 1, 2018, applicants must obtain all required local permits from their city or county. Local counties and cities have their own fee and taxes in addition to the state level taxes and fees. The taxes and fees of those counties that have regulations in place are detailed in Appendix B.

Limited grows for personal use, or by caregivers for specific patients, are not considered commercial operations. In some cases, multiple individuals (with medical marijuana cards) or caregivers may band together in a collaborative to grow cannabis for their personal medical needs. They can only

provide product for the members of their collaborative and cannot sell to non-members. Such operations sometimes require permits from the county in which they are located (e.g. Monterey), but do not need state licenses.

There are restrictions on who can own cannabis businesses, including people convicted of certain felonies. Each cannabis business owner (anyone with a 20% stake or more in the business), including cultivators, must pass a Department of Justice fingerprinting and criminal background check and each license or permit application must disclose “every person with a financial interest in the person applying for the license as required by the licensing authority.” In addition, title to the land must be demonstrated, or if renting/leasing, permission from the owner to operate a cannabis business must be provided.

Cannabis is a crop with a significant water demand, using between 3.5 to 6 gallons of water per plant per day^{4,5}. As a result, the source of water sufficient for the size of cultivation must be identified and rights to that water must be proven. Water storage systems may be required if using stream flows, rainwater catchment or wells. These systems could cost in the six figures⁶. Wastewater discharge and management plans must also be developed. Permits from the Regional Water Quality Control Board or the State Water Resources Control Board may be required. Fees for discharge permits with the North Coast Regional Water Quality Control Board range from \$1,000 to \$10,000 annually, depending on the threat to water quality.

Cultivation sites must take specified security measures such as secure privacy fencing, absence of signage and often security systems. There are setback and location restrictions (e.g. 1000 feet from a school) as well as odor control requirements. Local counties will also have their own specific requirements, such as for grading, access and regular inspections.

Under both MCRSA and AUMA, product must be tracked through the value chain from the plant to the end product and consumer (known as ‘seed to sale’). Interestingly, this tracking is also required by the Federal Government⁷. To do this, the state is developing a “Track and Trace” system which requires that each plant have a unique identifier. That identifier is reported as the product moves through the value chain. Under this system the state, and the consumer, can be sure that the product has come from a legal cultivation site. The system is similar to the one the state uses to track cigarettes, and could, potentially, be used for product recalls.

In order to ensure consistent quality and product safety, MCRSA and AUMA require mandatory laboratory testing for all medical Cannabis dispensed in the state. This includes testing of the cultivator product as well as manufactured products (such as edibles and therapeutic lotions). Labs must be independent of the cultivators, manufacturers or dispensaries. Proposed standards in California are more stringent than those already in place in Oregon, Washington or Colorado⁸. In one recent test, 80% of samples from a cannabis industry trade show were tainted with mold, fungus, bacteria, pesticides, or harmful solvents⁹. Another study placed the cost of testing to be \$407 per pound¹⁰. These costs and the changes in cultivation practices required to meet testing standards are likely to prove challenging to existing growing community.

While the state is working out the details of its program certain cities and counties have implemented their own Track and Trace systems and testing requirements. Examples are Humboldt and Yolo counties, and the city of Oakland.

Land Use and other considerations regarding cannabis cultivation

The legislation legalizing medical and recreational cannabis, and the resulting framework of regulation and ordinances, have given counties the tools to provide land use direction to cannabis cultivation. As long as cannabis cultivation was illegal, the only tool counties had was to eradicate the grow and arrest the grower. That is, if they could find either. Cannabis cultivation was similar to moonshiners in the Appalachians – well-hidden up in the hills.

The epicenter of the illegal cultivation in the state were the counties of Humboldt, Mendocino and Trinity, collectively known as the Emerald Triangle. All three counties are all mountainous and heavily forestedⁱⁱⁱ. Therefore, the vast majority of illegal grows were in forested areas. Either on private land, or on Federal land (there is little state forestland in California), growers would create openings in the forest to set up their operation (see Figure 1^{iv}). They would often divert streams to create a water source and use pesticides and rodenticide to keep pests away. Camp would be set up for the tenders to look after the crop (and protect it from poaching). All of this resulted in tremendous ecological harm to the land and wildlife population¹¹. According to the Drug Enforcement Administration, 1,893 outdoor grow sites were eradicated in California in 2015. There was a significant criminal element as well, with gangs from South America, Eastern Europe and others setting up operations.



Figure 1. Forest opening created by grower operation^{iv}

Cannabis cultivation became a well-known, if shadowy, local industry. Every fall, young people would come into the area for well-paying seasonal work as ‘trimmers’. Sales of pickup trucks were brisk at the local dealership – with many people paying cash. They added significantly to the local economies, which had suffered for decades. When legalization appeared on the horizon, the growers became even more brazen, no longer trying to hide greenhouses or their operations.

Due to this freewheeling, illicit but often ignored environment, most illegal and quasilegal cultivation sites were sited on land that was inappropriate for that use: steep & forested with poor access and little infrastructure. Many new county ordinances viewed cannabis as an agricultural product and directed future cultivation to land zoned for such activity.

ⁱⁱⁱ Humboldt County – 83% forested; Mendocino Count – 77%; Trinity County – 87%. Forested % is the conifer & hardwood dominated land base as a % of total county land. Source, Calfire Fire Resource & Assessment Program (FRAP), 2002

^{iv} Courtesy of Scott Bauer, California Department of Fish and Wildlife (Note: cover photo also courtesy of S. Bauer)

The effect of pending legalization and the expectation of supporting local ordinances has resulted in the creation of a land rush of sorts. Growers looking to claim the best sites outbid other potential, and more traditional, buyers of land, often by many times. Agricultural land prices in Humboldt county have increased between 90% and 150% over the last four years. A survey of listings in the county showed an average price of \$13,372 an acre, with some as high as \$38,889 per acre. While several indicated existing cultivation sites, many listings indicated that cannabis cultivation permits were ‘in process’. Commercial greenhouses in Monterey County have tripled in price. This has the effect of changing the nature of the local economy, and has caused some understandable friction in the community. Changing visual elements (adding greenhouses in non-traditional sites) and resource use (e.g. water use) exacerbate frictions.

Perspective cannabis cultivators have been trying to anticipate where, and under what conditions, counties were going to permit legal cultivation. They then would start to set up operations in expectation of what the ordinance would permit. Santa Cruz County, for example, has had to put this warning on their Cannabis Licensing website in bold red letters: *“Thus, we are advising you and your business partners to stop all unpermitted land clearing, grading, vegetation removal, construction and similar development, as these activities may put your prospective license in jeopardy.”* Some guessed correctly and some did not. Some cultivators purchased land and set up operations under regulations defined in urgency ordinances which are now being changed or eliminated in the final ordinance, leaving them with a potential total loss of their investment. Growers in Calaveras County and California Valley in San Luis Obispo County are facing this situation presently.

Cannabis Cultivation and Agriculture Policies

Under the new regulatory framework, cannabis is considered an agricultural product. As noted above, those counties that have developed ordinances covering commercial cultivation have directed development toward agricultural or mixed agricultural and suburban zones. Typical is Humboldt county’s ordinance which states, *“Outdoor and Mixed-Light cultivation is permitted on all ‘Agricultural Land’ or in zones in which ‘General Agriculture’ is a principal permitted use ... subject to performance standards. Special limits apply to ... timberland zones¹².”* Some counties have additional protective restrictions, such as Sonoma county’s ordinance: *“Indoor and mixed light cultivation facilities shall not remove agricultural production within Important Farmlands, including Prime, Unique and Farmlands of Statewide Importance as designated by the state Farmland Mapping and Monitoring Program, but may offset by relocating agricultural production on a 1:1 ratio.¹³”* In addition, Sonoma County requires a Biological Resource Assessment to determine the presence or absence of listed animals and plants and the effects of proposed cultivation activity on those species. There may also be siting restrictions based on the slope of the property, amount of land area devoted to cultivation, and the like.

Mixed light (or greenhouse) cultivation sites (Type B) are sometimes allocated to lands zoned “Industrial Agricultural”. An example is Monterey County, where cannabis is now being grown in the large scale greenhouses previously used to produce cut flowers. Strictly indoor cultivation sites (Type C) are typically limited to industrial zones within the counties.

Many county ordinances allow for multiple permit types on one property. This is especially applicable for indoor or mixed light operations. Thus, under a single 100,000 sq. ft. commercial greenhouse or industrial warehouse, there could be five or more cultivators operating, each with their own license. Local “Right to Farm” ordinances^v generally do not apply to new cannabis cultivation sites. Only those situated on an existing active agricultural site already covered under local Right to Farm ordinances get such protection. Thus, new cultivation locations must be carefully chosen to avoid existing or possible residential communities. Alternatively, they must apply mitigation measures such as odor control.

California has a state law called the Williamson Act^{vi} which enables local governments to enter into contracts with private landowners restricting certain parcels of land to agricultural or related open space use. Cannabis cultivation, by itself, does not qualify a property for Williamson Act contracts. Some counties, such as Sonoma County, will allow cannabis cultivation on properties under Williamson Act contracts as long as it is considered a compatible use by the county’s zoning ordinances and is consistent with the terms of the individual contract.

Other agricultural practices are starting to be applied to cannabis, however. In August, Pacific Gas and Electric, the state’s largest public utility, announced that it will allow licensed commercial cannabis cultivators to access the same discounts it gives to the state’s mainstream agricultural businesses. In addition, various types of crop insurance are available to licensed growers in the private market.

The extensive technical requirements for obtaining all the required permits has created significant demand for professionals who have experience working with counties and state agencies. With looming deadlines for filing providing incentive, and the lucrative nature of the business providing the means, these professionals have been in high demand. That, in turn, has limited their availability to conduct the work of their traditional clients – forest landowners, ranchers and farmers, land trusts or NGOs and, indeed, the counties themselves.

Moving Growers from Illegal to Legal

Counties with large installed base of illegal grows are faced with the challenge of allowing these grows the opportunity to become legal, while maintaining equity with those who are following the defined process from the start. To bring these growers into the legal community, the counties have developed specific processes to provide a pathway and assistance to achieving compliance.

Generally, these pathways to becoming compliant are quite difficult. They require that the applicant to ‘go back in time’ as it were and obtain permits as if for the original installation (and all modifications

^v All fifty states have enacted “right-to-farm” laws that seek to protect qualifying farmers and ranchers from nuisance lawsuits filed by individuals who move into a rural area where normal farming operations exist, and who later use nuisance actions to attempt to stop those ongoing operations. See: <http://nationalaglawcenter.org/state-compilations/right-to-farm/>

^{vi} The Williamson Act (officially, the California Land Conservation Act of 1965) is a California law that provides relief of property tax to owners of farmland and open-space land in exchange for a ten-year agreement that the land will not be developed or otherwise converted to another use. The motivation for the Williamson Act is to promote voluntary land conservation, particularly farmland conservation. (https://en.wikipedia.org/wiki/Williamson_Act)

thereafter), pay fines and remediation expenses, and bring their site up to current required standards. This includes permits from, and remediation directed by, state Fish & Wildlife, Water Quality and Department of Forestry and Fire Protection (CalFire) agencies. Land title (or permission from landowner), water rights and the like must be proven. Infrastructure must be installed (dirt tracks converted to proper roads, sanitary facilities and OSHA compliant structures provided) along with required security and fencing. All of this can take a long time and cost a great deal of money.

Many of these existing cultivation sites have been in the hills, on both private and public timberlands. As only private timberlands can be considered for legal cannabis cultivation sites, counties have been developing land use policies relative to these lands. Private forestland is either in some sort of forested zone, or, if it productive timberland, classified as Timber Production Zone (TPZ)¹⁴. Humboldt County will allow these cultivators to apply for a conversion permit (for 3 acres or less), provided they are in ecologically stable areas and are deemed by the county to be a ‘compatible use’. If they are granted such a conversion, they must then become compliant with other state and local regulations. No new grows on TPZ lands are permitted.

Table 2: County policies toward cultivation on TPZ lands (Opportunistic, Engaged, Developing and Reconsidering County Types)

Policy	Counties
Allow TPZ land to be used for cultivation, subject to CalFire and County determination of Compatible Use	Calaveras, San Luis Obispo and Santa Cruz (Note – these three counties are currently developing their codes and could change)
Will allow some existing grows on TPZ land - subject to CalFire and County determination of Compatible Use - but no new grows.	Humboldt, Mendocino, Trinity
Do not allow cultivation on TPZ lands	Sonoma
Do not have TPZ lands	Monterey, Yolo

In addition, recognizing that some existing grows are on sites that are sensitive ecologically or on steep ground that would not be permitted, Humboldt county created a Retirement, Remediation, and Relocation (RRR) program. The RRR program allows those sites who were in existence prior to January 1, 2016 and who agree to relocate to an allowed agricultural zone to apply for a cultivation permit up to four times larger than the previous grow site. The applicant needs to commit to rehabilitating the prior site and pay all costs to do so (and the county will put a lien on the property to ensure performance).

The history of regions such as the Emerald Triangle, means that most existing growers have spent their lives hiding in the hills and doing as they pleased. It is not in their nature to work within the tedious process of obtaining permits from multiple local and state agencies to become legal and compliant. To address the inequity with those who are following the process, as well as counteracting the ongoing environmental damage, counties have developed programs, funded by application fees and cannabis taxes, to target those who choose to stay in the shadows for enforcement^{15,16}. This provides an incentive for the recalcitrant grower to go through the arduous process of becoming legal. Reducing

the footprint of illegal cultivation is also important to reducing the criminal element in these counties. With illegal operations come kidnappings, murder and assaults. In 2015, Mendocino County had a violent crime rate seven times higher than Los Angeles County¹⁷.

Individual county approaches to regulation of commercial cannabis

Of the 51 counties we examined in this report, 47 have regulations addressing personal or caregiver grows. We expect that all 51 will have these in place by January 1, 2018. Those that do not will default to state law, which allows up to six plants for personal or caregiver grows. Only nine counties currently have, or are developing, ordinances that allow for commercial cultivation in some form.

Senate Bill 94, which aligned the medical and adult use programs, provided a strong incentive for counties to complete their ordinances by July, 2019. County ordinances completed before that date are not subject to the California Environmental Quality Act’s requirement to produce an Environmental Impact Report (EIR). This is a significant savings in time and money for most counties. Of course, some counties have already completed an EIR.

California, as with most states, cedes significant control over land use to local communities. This is true of counties as well; they cede control to cities. Thus, while county ordinances cover the unincorporated areas of the county, cities are free to adopt their own approaches. Sometimes these are quite different from the county. So, in some counties where there is a ban on all commercial cannabis cultivation, there are cities which strongly support it. Examples are the cities of Coachella (Riverside County) and Adelanto (San Bernardino County) which have encouraged large scale indoor cultivation operations within their city limits. In examining the approaches taken by these counties, we see them falling into the following six types (Table 3).

Table 3: Six Types of County Approaches to Regulation of Commercial Cannabis

Type	# Counties	Description
1. Opportunistic	3	Counties that see economic opportunity in commercial cannabis and have moved aggressively to implement the full spectrum of allowable cultivation options.
2. Engaged with Limits	4	Counties that supportive of commercial cannabis, but are limiting what they will permit.
3. Actively Developing	4	Counties that supportive of commercial cannabis and are in the process of developing the regulations and infrastructure necessary.
4. Reconsidering	1	Counties that have developed initial regulatory structures but are reconsidering the extent to which they will allow commercial cannabis.
5. Wait & See	34	Counties that have adopted the minimum required to maintain control of their process while waiting to see what the state and other counties do.
6. Conservative	5	Counties that have taken the most restrictive approach toward cannabis in general, and commercial cannabis in particular.

Further information can be found in the following Appendices (Table 4).

Table 4: Listing and Description of Report Appendices

Appendix	Description
Appendix A	A list of counties with their status (as of publication) and other information.
Appendix B	The current status of the fees, taxes and other costs for the Opportunistic and Actively with Limits counties
Appendix C	A California map showing the county locations, estimated 2016 cannabis production and the location of the Emerald Triangle

Opportunistic: These are the counties that see economic opportunity in cannabis production. Proposition 64 passed in these counties by over 60% of the vote. They have proactively developed regulatory schemes to allow a full range of cultivation activities. Humboldt, Monterey, Sonoma fall into this category as they allow commercial cultivation license types 1, 2 and 3. They anticipate both Medical and Recreational cultivation. Because they are on the forefront, they have implemented some innovative approaches. Humboldt County has a Retirement, Remediation, and Relocation (RRR) program, mentioned earlier. Sonoma County has set up extensive workshops and programs to help local applicants through the process.

Monterey County is unique in that only greenhouse cultivation is allowed. No outdoor or indoor permits are being issued, other than for personal use. While the county wants to protect its \$5 billion agriculture economy, it also has many greenhouses which were underused or abandoned after the cut flower industry declined and shifted to South America. These greenhouses are now the center of a vibrant and growing commercial cannabis industry expected to bring in \$20 million to \$30 million annually in new tax revenues to the county.

These counties are also among the first to set up permitting and tax programs. Application fees range from \$2,500 for a simple zoning permit to over \$10,000 for a Use Permit (not including the costs of preparing the designs and reports necessary). Taxes range from Monterey County at \$15 per square foot of canopy (going to \$25 in 2020) to Humboldt which ranges from \$1 per square foot for outdoor grows to \$3 per square foot for indoor grows. In what could be seen as an indication of scale, Humboldt County expect \$2.2 million in tax revenues from cannabis in the 2017-2018 fiscal year¹⁸.

Of course, applicants may need business license and other permits, depending on the scope of their operations. County Licensing and permitting fees are a minor portion of the overall cost for most applicants. If needed by the particular site and operation, the costs for environmental and archeological studies, water conveyance & storage, grading and infrastructure development can vastly expand the investment needed to start a cannabis cultivation operation.

Even though these counties have large existing cultivation already (there are an estimated 9,000 growers in Sonoma County¹⁹), they also see a tremendous opportunity to improve the economies of their regions. One study suggested that cannabis production “exceeds twice the total value of timber, livestock, dairy, nursery, and vegetable crops grown in Humboldt County in the same year²⁰”.

Engaged with Limits: These are counties that engaged in the process of implementing commercial cannabis regulations, but are limiting what they allow. They may have already had some history of cannabis cultivation and want to allow them to become legal, but are not ready for large grows. Others may embrace cultivation, but restrict manufacturing, distribution and retail. They may have received interest from their citizens that support commercial cannabis cultivation and are working to implement the regulations to allow that. Proposition 64 passed in these counties with 58.4% of the vote.

The counties that fit within this criteria are:

- Allow commercial cultivation license types 1, 2 & 3, but restrict non-cultivation businesses: Yolo
- Allow commercial cultivation license types 1 & 2 only: Mendocino, Trinity (does not permit indoor cultivation; limited to 500 total licenses county wide),
- Allow 1 commercial cultivation license type 1 & Cottage only: Santa Cruz (in process of developing ordinances for larger grows).

Due to input from its citizens, Mendocino county has chosen to support the small, organic grows that have made up its cannabis culture to date. As a result, they currently prohibit larger, Type 3 grows. They have also developed specific organic standards for cannabis cultivation. Cultivators who meet that standard can use the county's "Certified Mendocino County Grown" certificate in their marketing efforts (see box to the right).

Several of these counties have also developed sophisticated fee and tax structures. Mendocino taxes cultivation based on gross receipts (2.5%) and not on canopy area. They have set minimum total tax levies based on the size of the grow. These are assessed throughout the year and collected quarterly. Mendocino County also has a track and trace program in the pilot stage.

Yolo County is currently operating its permitting process as business license, but is planning to transition it to a land use process in 2018. That will allow the permitting program to be run by the

Branding Strategies

There are two county specific branding programs under development by their respective County Agricultural Commissioners:

Humboldt Artisanal Branding

- Cultivation area of 3,000 sq. ft. or less
- Operated by a County permit and state license holder who resides on the same parcel as the cultivation site
- Grown exclusively with natural light
- Meets organic certification standards or the substantial equivalent

Humboldt appears to plan to manage this through their Track & Trace Program.

Certified Mendocino County Grown

- Produced following production standards used in the production of crops labeled as organic according to United States Department of Agriculture, National Organic Program.

Mendocino appears to plan to manage this through their licensing and permitting program.

Planning Department and establish specific zones where cultivation is allowed. Yolo currently has 64 licensed commercial cultivators of medical cannabis. There are another 20 and 25 permits requested, but have not completed the application process. They will have to wait until the transition to the Planning Department is complete.

Actively Developing: Some counties have engaged their citizens with ballot measures and referendums to gauge the public desire for commercial cannabis. Those that have received positive feedback are now in the process of developing ordinances thorough public meetings and hearings. While they are going through this process, personal and caregiver grows are allowed but commercial cultivation is not. Examples of these counties are Inyo, Santa Barbara, and San Mateo.

Inyo County is a rural county in the eastern part of the State along the Nevada border. It is home to fewer than 20,000 people along with Death Valley National Park. In the November 2016 election, along with Proposition 64, Inyo County put three measures on the ballot seeking citizen input. In addition to Prop 64 (55%), all three passed by healthy margins. 55% voted to allow medical cannabis businesses, 54% voted to allow recreational cannabis and 64% said the county should tax potential cannabis businesses.

In March and April, Inyo County planning held 13 hearings seeking public input. They are in process of developing regulations which they hope to have in place by the end of the year.

Santa Barbara County is a Suburban county bordering the Pacific Ocean. It is home to 440,000 people and Proposition 64 passed with 61% of the vote. It has formed an Board of Supervisors Ad Hoc Committee which will work with staff will develop a permanent ordinance related to the regulation of medical and recreational cannabis. It asked those who already are operating cannabis businesses, and those who have a site and intend to file for permits, to register their operations in a database. The purpose is to collect data to help in the ordinance drafting, and to provide a priority population to apply for permits once available.

San Luis Obispo County has 281,000 residents and 57.3% voted in favor of Proposition 64. The County estimated that there were 500 existing Cannabis grows in 2016. It is currently operating under an urgency ordinance which allows commercial cultivation in existence prior to August 23, 2016 to continue to operate. County staff have drafted new ordinances for both the inland and coastal zones. The draft ordinances indicate that all three license types are contemplated, along with nurseries, although the number of outdoor grows will be limited to 50²¹. The draft ordinance has generated significant controversy, however, by banning cultivation in the California Valley, where 180 of the 267 grows permitted under the urgency ordinance are located.

San Mateo County is an urban county with both San Francisco Bay and Pacific Ocean shoreline. The far western portion of the county is quite rural and had a cut flower industry much like Monterey County. In July, 2017, the Board of Supervisors passed a resolution to study developing regulations to allow these greenhouses to convert to cannabis.

Reconsidering: At present, there is one county that is in process of reconsidering the direction it had taken.

Calaveras County is a rural county in the foothills, gold rush country. In May, 2016, it passed urgency ordinance permitting commercial cultivation. The ordinance allowed for all commercial cultivation license types (1, 2 and 3), and permitted outdoor/mixed light grows on forestland^{vii}. Since then some 700 cultivation permits have been issued and it is estimated that cannabis cultivation was the largest industry in the county last year. The county collected some \$3.7 million in taxes and fees. The county has been actively developing a formal ordinance allowing commercial cultivation, among other business types.

However, Proposition 64 only garnered 47% of the vote and there is a significant portion of the population that is against commercial cannabis. They helped turn over the Board of Supervisors in the last election, installing a majority which is now considering canceling the urgency ordinance and instituting a ban on commercial cultivation. An Environmental Impact Report (EIR) has been created for the proposed commercial ordinance. All EIRs must include a ‘no project’ alternative in the analysis. This ‘no project’ alternative could allow for the Board to adopt a ban.

Replacing the interim ordinance with a ban has complications. First, many growers have paid a significant money to the County and that could spark lawsuits. Second, the county has a \$3.6 million budget deficit and, in the same election that resulted in installation of pro-ban supervisors, the voters passed a cannabis tax ordinance that could bring in \$10 million per year²². The ban proposal has, understandably, caused a great deal of consternation on all sides. It currently appears headed for passage at the Board of Supervisors.

Wait and See: Given all of the uncertainty with the State still developing regulations and the Federal government still classifying cannabis as a Class 1 drug, these counties have adopted the minimum regulations required to maintain control of their process. They allow personal and caregiver grows, but usually have some restrictions. These can be requiring the grows to be in a separate structure (usually a ‘solid wall greenhouse’) or fenced, etc. No commercial or nursery operations are allowed.

Thirty four counties fall into this category, of which twenty are rural, nine are suburban and five are urban. These counties voted in favor Proposition 64 by rates ranging from 61.7% (Mono County) to 42.9% (Kings County). In an informal survey of interest in cultivation performed by the California Food and Agriculture (CDFA, home of CalCannabis), 7 of the top 10 counties with the greatest interest in cultivation were ‘wait and see’ counties.

While most of the counties in the category prefer to let their ordinance do the talking, Butte County has taken the step of providing guidance to their individual and caregiver growers. They created a user-friendly brochure, titled “Stay in the Box”, which outlines the requirements of the ordinance in easy to understand format²³. The title refers to the canopy limitation for grow size.

^{vii} 63% of Calaveras County is forested (Conifer and Hardwood).

Conservative: The counties have taken a restrictive position on cannabis cultivation, many citing Federal law and public safety concerns. These counties are the rural counties of Alpine (61.3% in favor of Proposition 64), Amador (46%), and Colusa (43.7%); the suburban county of Marin (69.7%) and the urban county of Fresno (47.6%).

They have either issued a total ban on all cultivation, including personal or caregiver grows (Fresno, Amador), or deferred to the state law (Alpine).

Very conservative cities and counties must be careful, however, when considering ordinances which are significantly more restrictive than what is allowed under state law for personal cultivation. There is currently a lawsuit (*Harris v. City of Fontana*) that is challenging such a strongly restrictive ordinance.

The County of Marin is a paradox. It is known as a very liberal county and had the second highest vote total in the state in favor of Proposition 64. However, it has banned all commercial that would require a license from the state, and all outdoor grows, regardless of whether it was otherwise permitted by state law. This has earned it a spot on at least one list of “Worst Counties for Recreational Marijuana²⁴”. There are no specific ordinances allowing personal medical or caregiver grows, although a county employee indicated that they are tolerated as long as they comply with state law.

Some thoughts about the future

The legalization process for cannabis in the State of California is still very much in flux at the last quarter of 2017. The state offices in charge of developing the regulatory framework for the, now merged, industry are frantically striving to complete their processes to be able to issue licenses by January 1, 2018. As noted, many counties are in process of developing their own regulations and infrastructure.

The industry itself is in flux, with many conflicting influences and directions. There is a concern that ‘big business’ will take over the industry and drive out small producers. To counteract this, state law prohibits large grows until 2023, supports collaboratives of small growers and places significant restrictions on vertical integration. Some counties have been developing ‘brands’ to differentiate themselves. Still, a market the expected size of California’s is too big to ignore and investors and larger companies with cannabis positions in multiple states have been active in acquiring properties and businesses in the state.

While the previous push has been to establish cultivation operations in anticipation of legalization, that is coming to an end. The next push may be to maximize reach and scale - “Get big or Go Home”. Certainly, the large indoor grows and mixed light greenhouse operations are heading in that direction already.

There are many advantages to greenhouse cultivation, and they are supplanting outdoor cultivation. Since they are enclosed, pests and contaminants are much easier to keep out (especially with positive pressure). This reduces testing risk. They also protect against weather. Thus, greenhouses can

produce with more consistent quality than outdoor grows. In addition, greenhouses can manipulate the growing environment with grow lights and shades. These are used to augment natural light on days of minimal sun and can force plant maturation to ensure consistent growth cycles. In this way, greenhouse growers can have multiple harvests (up to five) in a single year. By contrast, standard cultivation by outdoor growers results in one harvest per year. As they are considered agricultural buildings, greenhouses generally fit within existing agricultural zoning requirements. They also use far less energy than indoor grows, making them less expensive (and with a lower carbon footprint). Thus, while outdoor grows comprised 60% of cultivation sites in 2016, we expect that mixed light greenhouses will become the dominant cultivation method within a couple of years.

California's cannabis production is already the largest in the country, and looks to increase in 2018. One has to wonder who is going to consume all of this product. California currently consumes 30% of the cannabis that it produces²⁵. While the medical field continues to innovate with edibles, therapeutic lotions and the like, the effect that these will have on total demand is expected to be small. While recreational consumption trends may change – more use of oils in vaporizers and less use of physical cannabis – the overall number of people consuming is unlikely to change that much²⁶. Some reduction in production can be anticipated through enforcement efforts directed at the non-licensed growers, however, the scale of legal commercial grows should more than make up for this drop.

While this report did not look at indoor cultivation, it is worth noting that some very large (600,000 square foot) integrated indoor operations, developed by commercial real estate organizations, are being constructed throughout the state²⁷. Corporate owners with deeper pockets and a longer time horizon may benefit at the expense of the individual grower. The 21st license issued by Humboldt County went to a publicly traded company, CaliPharms, Inc²⁸. There are many more examples up and down the state.

The increasing cost and complexity of regulation, meeting environmental standards, stringent testing requirements, implementing Track & Trace and getting product to market through new distribution networks are likely to be too much for many producers, especially existing smaller ones. Growing pains at the regulatory and infrastructure (Testing, Distribution) level could limit capacity. With cities, counties and the state all looking to earn tax revenue from the product, there is a significant risk of overlapping and overbearing taxation. Prices are already dropping, ahead of January 1, 2018, and there are reports of growers not being able to sell last year's product²⁹.

These high costs and complexities, along with the continued strong export demand, may cause many cultivators to decide to stay in the shadows and sell to the export (Black) market. That may dampen the number of commercial cannabis cultivation license applications. In Sonoma County, despite estimates of many thousands of growers, only 18 cultivation applications were received in the first three weeks. It is estimated that only 11% of existing growers in the Emerald Triangle have applied for permits³⁰. Lighter punishments make the costs (including possibly losing a crop) seem like a worthwhile tradeoff. Low adoption may cause there to be a supply shortage when the legal market debuts on January 1, 2018. Low adoption will also hamper efforts to migrate cultivation onto appropriate land use zones, leaving more sites in environmentally unsuited locations.

As approximately 70% of California's product is not consumed in state, California is the largest volume exporter of Cannabis in the country³¹. However, there is increasing competition from other countries and regions. Vicente Fox, former president of Mexico, told attendees at a July, 2017 National Cannabis Industry Association's convention in Oakland, CA, that Mexico could one day produce 60 percent of the legal marijuana Americans consume, challenging domestic producers. Both Mexico and Canada have legalized medical marijuana nationally, and Canada intends to legalize recreational cannabis by July, 2018. Both intend to begin exporting the drug into the US and will look to integrate it into NAFTA³².

While there are powerful forces driving change in the cannabis market in the short to medium term, the Federal Government's actions will have the biggest long-term impact. As a Schedule 1 drug, it is classified more stringently than cocaine and methamphetamine. Issues of banking, taxation, interstate commerce, insurance and the like are hanging over the industry. The California legislature passed a resolution on September 14, 2017, calling on the Federal government to reclassify cannabis.

While all this is going on, California counties are staking their positions. Given the investment being put into the Opportunistic, Engaged with Limits and Actively Developing counties, as well as certain aggressive cities, it is likely that the majority of the Wait and See and Conservative counties will not develop anything more than small, artisanal, commercial cannabis operations. It is interesting to note that, while cannabis is considered by the state to be an agricultural product, California's largest agricultural region, the San Joaquin Valley, is largely devoid of large scale cultivation. There are a few limited industrial locations, such as in Yolo County, but in general, the valley is considered too hot, dusty and politically unfriendly to cannabis.

Appendix A: County Summary

	Type				Cultivation			
County	Rural	Sub-urban	Urban	Type	Individual	Caregiver	Commercial	Prop 64 Approval %
51	29	15	7		47	46	9	
Alpine	X			C				61.3%
Amador	X			C	Y	Y		47.6%
Butte		X		W&S	Y	Y		52.8%
Calaveras	X			R	Y	Y	Y	47.2%
Colusa	X			C				43.7%
Del Norte	X			W&S	Y	Y		59.5%
El Dorado	X			W&S	Y	Y		49.6%
Fresno			X	C				46.0%
Glenn	X			W&S	Y			46.6%
Humboldt	X			O	Y	Y	Y	58.7%
Imperial		X		W&S	Y	Y		44.7%
Inyo	X			D	Y	Y		54.9%
Kern		X		W&S	Y	Y		45.3%
Kings	X			W&S	Y	Y		42.9%
Lake	X			W&S	Y	Y		57.6%
Lassen	X			W&S	Y	Y		45.6%
Madera	X			W&S	Y	Y		43.8%
Marin		X		C	Y	Y		69.7%
Mariposa	X			W&S	Y	Y		51.4%
Mendocino	X			E	Y	Y	Y	54.2%
Merced		X		W&S	Y	Y		49.3%
Modoc	X			W&S	Y	Y		45.8%
Mono	X			W&S	Y	Y		61.7%
Monterey		X		O	Y	Y	Y	62.2%
Napa		X		W&S	Y	Y		60.6%
Nevada	X			W&S	Y	Y		52.1%
Placer		X		W&S	Y	Y		47.7%
Plumas	X			W&S	Y	Y		51.7%
Riverside			X	W&S	Y	Y		52.4%
San Benito	X			W&S	Y	Y		55.0%
San Bernardino			X	W&S	Y	Y		51.9%
San Diego			X	W&S	Y	Y		55.9%

County	Type			Type	Cultivation			Prop 64 Approval %
	Rural	Sub-urban	Urban		Individual	Caregiver	Commercial	
San Juaquin			X	W&S				50.7%
San Luis Obispo	X			D	Y	Y	Y	57.3%
San Mateo			X	D	Y	Y		62.8%
Santa Barbara		X		D	Y	Y		61.1%
Santa Cruz		X		E	Y	Y	Y	69.9%
Shasta	X			W&S	Y	Y		48.0%
Sierra	X			W&S	Y	Y		51.0%
Siskiyou	X			W&S	Y	Y		51.6%
Solano		X		W&S	Y	Y		58.1%
Sonoma		X		O	Y	Y	Y	59.2%
Stanislaus		X		W&S	Y	Y		49.3%
Sutter	X			W&S	Y	Y		45.2%
Tehama	X			W&S	Y	Y		48.2%
Trinity	X			E	Y	Y	Y	50.0%
Tulare		X		W&S	Y	Y		44.1%
Tuolumne	X			W&S	Y	Y		51.9%
Ventura			X	W&S	Y	Y		55.0%
Yolo		X		E	Y	Y	Y	59.6%
Yuba	X			W&S	Y	Y		46.7%

Key: O: Opportunistic, E: Engaged with Limits, D: Actively Developing, R: Reconsidering, W&S: Wait & See and C: Conservative

Appendix B: Fees / Taxes / and other costs

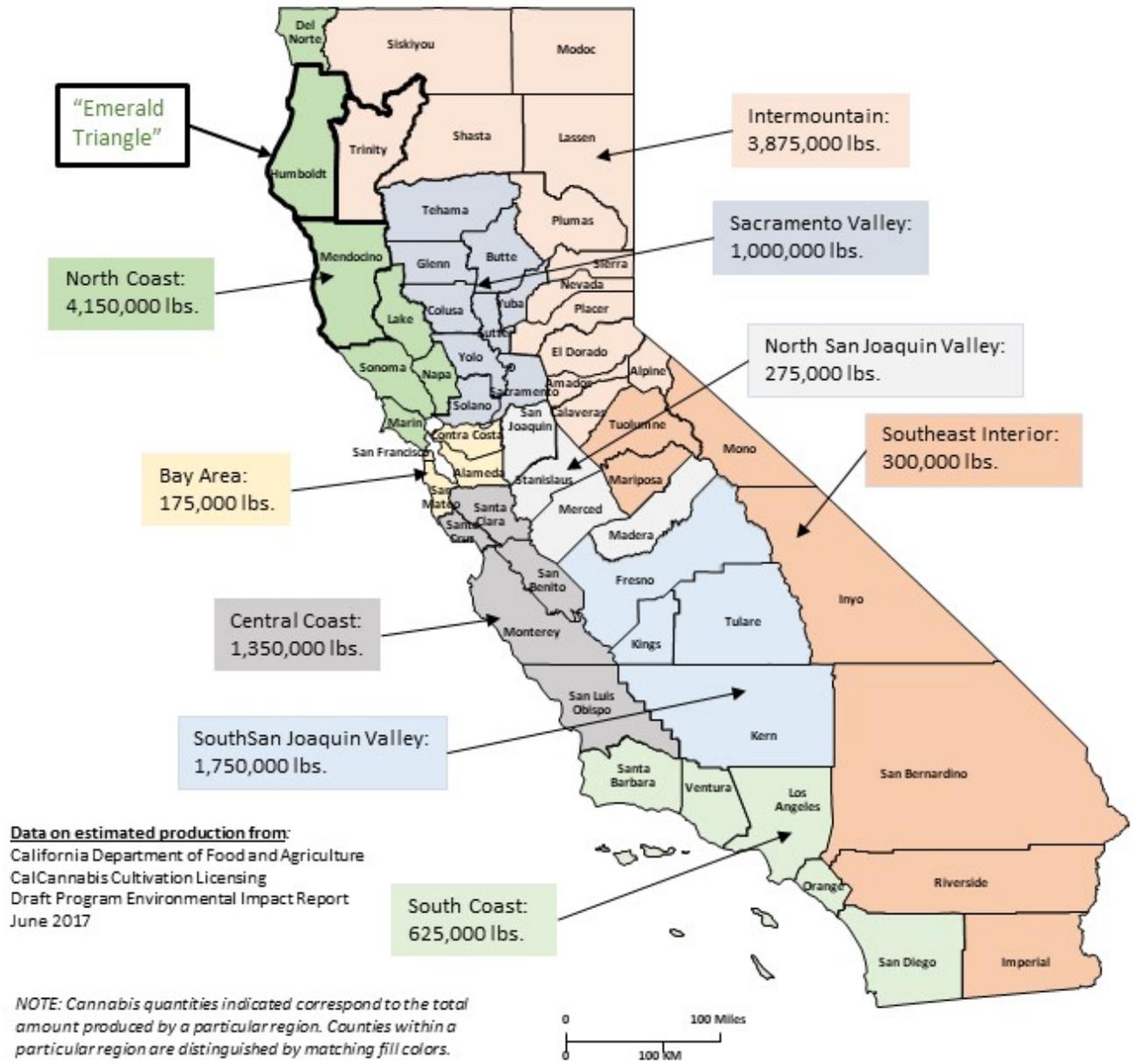
The counties listed in this section are the Opportunistic and Engaged with Limits categories.

Note that many of the counties have defined most of these fees / taxes and costs for Medical Cannabis and not specifically for Adult Use, or recreational cannabis. It is expected that many of these will just be used for the combined licenses and programs.

Permitting and Licensing Fees	
Humboldt	Does not have set permitting fees. Cannabis Program is self-funded (not out of General Fund) so all fees are listed as “Actual Cost plus 50% overhead. Estimates from consultants indicate a range of \$2,500 to over \$10,000 depending on type, land zone and complexity.
Sonoma	Indoor and Mixed Light permits are managed by the Planning Department. Permit Fees range from \$2,800 to \$ 7,761 based on type and complexity Outdoor cultivation permits are managed by the Agricultural Division. Permit fees range from \$2,400 to \$3,636 depending on size.
Monterey	Coastal Development Permit (\$9,020.35) or a Use Permit (\$8,214.27) plus a Commercial Cannabis Permit (\$4,474). This latter permit is a ‘deposit’ fee - the County will track time invested on each permit application and refund the amount of the deposit not used or bill the applicant if County costs for processing the permit exceeds the deposit amount.
Mendocino	Application: \$1,795
Trinity	Fees range from \$2,250 to \$6,000 depending on type
Yolo	\$1,500 Application Fee plus \$7,600 Initial Permit Fee
Annual Fees	
Humboldt	Agriculture Division Inspection (\$194) and Cannabis Division Inspection (Actual cost +50%, \$350 deposit).
Sonoma	Annual Cultivation Site Monitoring fees run from \$600 to \$900
Monterey	Annual Renewal Permit Fee: \$1,028. As with the initial permit fee, this is also a deposit fee.
Mendocino	Annual Inspection \$675 and NCRWCB Monitoring Self-Certification (MSF): \$970
Trinity	No response to inquiry.
Yolo	\$1.60 per sq. ft. (CBD Dominant) / \$2.48 per sq. ft. (THC Dominant) Annual Certification Fees
Taxation	
Humboldt	\$1 per square foot for outdoor grows, \$2 per square foot for mixed light grows and \$3 per square foot for indoor grows.
Sonoma	an annual commercial cannabis business tax either: (1) at a rate of up to \$10. 00 per square foot of outdoor cultivation area, \$38.00 per square foot of indoor cultivation area, and \$22. 00 per square foot of mixed-light cultivation area, or (2) at a rate of up to ten percent of gross receipts per fiscal year. Note: Initial rates (per square foot of canopy area) were set at between \$0.50 to \$3.50 for outdoor; \$1.88 to \$18.75 for indoor; and \$1.08 to \$10.80 for mixed light.

Monterey	\$15 per square foot of canopy area through 2019. Then it goes to \$20 in 2020 and \$25 in 2021 and increases with CPI after that. Nurseries are \$2 per square foot to 2019, \$3,50 in 2020, \$5 in 2021 and increases with CPI after that.
Mendocino	The initial tax rate effective January 1, 2017 through June 30, 2020, shall be set at two and one half percent (2.5%) of the gross receipts per fiscal year; provided, however, that cultivators shall pay not less than the following amounts: ≤2,500 sq.ft. of canopy area shall pay a tax of no less than \$1,250; 2,500 – 5,000 sq.ft. of canopy area shall pay a tax of no less than \$2,500 >5,000 sq.ft. of canopy area shall pay a tax of no less than \$5,000 Each of these minimum payments are assessed <i>per growing cycle</i> .
Trinity	Likely will place a tax on cannabis on either the November 2017 or June 2018 ballot.
Yolo	Likely will place a tax on cannabis on the June 2018 ballot to fund additional law enforcement, address health impacts, etc.
Track & Trace	
Humboldt	Currently running pilots and will roll out the program in September. At that time they will start to accept applications for a special stamp which identifies the cannabis as “Humboldt” artisanal brand. County fee schedule lists Track & Trace Stamps & Account Setup to be “Actual Cost +25%”. Declaration Verification First 5,000 square feet: \$59.00; Each additional 2,000 square feet: \$39.00.
Sonoma	Sonoma County does not have a track and trace program. All operators will need to enroll in the State’s Track & Trace program.
Monterey	No response to inquiry. Assume that it will enroll in the State’s Track & Trace program.
Mendocino	\$90 per month, \$0.02 per stamp, \$25 per order
Trinity	No response to inquiry. Assume that it will enroll in the State’s Track & Trace program.
Yolo	One Time Training Fee (covers training of 2 sources per operator) \$400.00 per operator Per Thousand Stamps (per/M) \$20.00 per Stamp Order and Delivery Fee \$25.00 per order Annual Fee: Type 1,2,3 Class A (Specialty) \$960.00 per year Type 1,2,3 Class B (Small) \$1,440.00 per year Type 1,2,3 Class C (Medium) \$2,160.00 per year

Appendix C: Map of California Counties and 2016 Cannabis Production Estimates

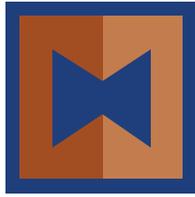


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