Final Report:
Local Regulation of Cannabis in California
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Abstract

This report details findings and analysis from a study titled *Local Regulation of Cannabis in California*. This study examines how jurisdictions approve commercial outdoor and mixed-light cannabis cultivation projects and details entitlement and cannabis permitting processes. This study analyzes how enforceable climate policies operate in relationship to the approval of commercial outdoor and mixed-light cannabis cultivation projects in eleven counties[1] and the timeline and process for approved projects.

[1] Study sites are Humboldt, Lake, Mendocino, Monterey, Nevada, Santa Barbara, Santa Cruz, San Luis Obispo, Sonoma, Trinity, and Yolo counties.

Executive Summary

Background

California's legalized cannabis industry aims to bring existing cannabis operators (***"legacy cultivators"***[2]) into the State-regulated market to protect the environment and consumers. Six years into the legalization of cannabis, many operators remain in the illicit market, and the majority of those that transitioned into the regulated industry have still not secured the ***local approval*** necessary to obtain an ***annual license*** (discussed in Section II(A)(6)(c)). One possible reason is the variability and complexity of local regulation. Research has not provided granular local-level data on how local governments apply the law, including land use regulation, to develop ***outdoor*** and ***mixed-light cultivation*** projects. This data gap may inhibit effective local and state policy development because crafting rules that advance participation in the legal cannabis market rather than the illicit market demands specific data about how the local application of land use regulation operates.

Objective and Methods

To understand how local governments apply land use regulation, including state-mandated ***environmental review*** and local planning and zoning, to proposed outdoor and mixed-light cannabis ***cultivation*** projects, we conducted mixed-method case study research. We selected for study the eleven California counties with the most nonmedical outdoor commercial cannabis cultivation.

This mixed-method case study research involved sequenced and overlapping phases of research. The first research phase was legal research to summarize each study county's planning and zoning code. We determined which local code provisions apply to proposed outdoor and mixed-light cannabis cultivation and what procedural or substantive requirements the local regulation imposes on proposed projects to obtain necessary local approvals to secure an annual license. These local approvals may include land use approvals, a business licensing process, and an application of State-required environmental review. We conducted a comparative analysis of our study jurisdictions' local ***regulations***, application of State-required environmental review, and interaction with State licensing processes to approve cannabis cultivation projects.

In the second research phase, we generated a comprehensive list of all outdoor and mixed-light cannabis cultivation projects that received final approval from their local government in 2018, 2019, and 2020. We developed this list using various sources, including State-level licensing data, county websites, contacts with county planning

[2] Terms in bold and italics are defined in the glossary section.

staff, and Public Records Act requests. Based on this list, we collected data for each project as to project characteristics, timeframes for approval, the local land-use regulatory processes the project had to comply with, State environmental review pathways, and ***terms and conditions of approval ("TCOA")*** imposed on the project by the local jurisdiction.

Findings

Our legal research revealed that local governments differ in how they write their cannabis ***ordinances***. Local government cannabis regulatory systems have also changed frequently over the past few years. The flux in local and state laws and regulations makes it difficult to determine what constitutes "final local approval." The novelty of cannabis regulation has also led counties to adopt regulatory structures that substantially differ from traditional land use regulation. Some counties have adopted hybrid ***entitlement*** and business license approval processes—in doing so, they are responding to cannabis operating as an ongoing, highly-regulated business activity.

The relationship between State law and local law in this area is also novel. Localities do not use uniform terms for the same concepts in their local law even though the State defines critical terms in the ***Medicinal and Adult Use Cannabis Regulation and Safety Act ("MAUCRSA")***. Environmental review is also complex and likely burdensome. Locally permitted cannabis projects must receive CEQA review from the State cannabis licensing agency, the Department of Cannabis Control, even if those projects were approved ***ministerially*** according to a local ordinance that has undergone CEQA review. This requires all cannabis projects to go through CEQA review in all circumstances.

In several counties, locally imposed permit or acreage caps have already been reached or are close to being met. Where the caps have been met, the lack of any new additional licenses will exclude new applicants from entering the legal system. Some counties have established programs that seek to encourage entry into the regulated market by pre-existing cultivators, such as Humboldt's ***Retirement, Remediation, and Relocation ("RRR") Program***.

In collecting data from counties, we often found significant challenges in data access. Some counties had web portals that greatly facilitated data collection. In contrast, other counties had minimal online data availability and may have lacked internal data tracking and storage processes for cannabis permits.

Over two-thirds of all projects approved in our study came from one of our eleven counties: Humboldt, with 542 approvals. Two other counties in the ***Emerald Triangle*** (Trinity and Mendocino) that had a long history of prior outdoor cannabis cultivation approved a total of three permits in our study period, indicating that hundreds of

applicants were still not able to apply for an Annual State license during our study period. However, the largest share of approved acreage (one-third) came from Santa Barbara, even though it only had nine approved projects.

Most approvals in most of our study counties took a long time. The average timeframe for approval across all counties was 24 months. Humboldt, which processed the most approvals, had an average time frame of 28 months. Only three counties had approval timeframes below 12 months: Lake (10.2 months), Nevada (7.6 months), and Santa Cruz (10.1 months). We found that larger projects generally had shorter approval timeframes than smaller ones.

In general, pre-existing cultivators faced substantially longer timeframes for approval (26.6 months versus 16.5 months for new cultivator applicants). Pre-existing projects had similar numbers of total TCOAs but a higher proportion of site-specific TCOAs. Pre-existing projects are also more likely to be present on steeper slopes than new projects, but we did not see a consistent difference in terms of hydrography between pre-existing and new projects.

There was no strong correlation between approval numbers or timeframes and the different regulatory pathways used by counties. The variation between counties that used similar pathways was as great as the variation across pathways. No specific local approval pathway correlates to shorten or lengthen timeframes. We found that more intensive local land-use approval processes (e.g., Planning Commission review rather than staff approval) correlated with longer timeframes for approval. Most projects require at least one hearing, and hearings correlate with longer timeframes for approval. Very few projects (1.4 percent) were subjected to administrative appeal requests by project opponents.

Many projects used an addendum to an Environmental Impact Report or Mitigated Negative Declaration to comply with CEQA and about a quarter used some form of CEQA exemption. The use of addenda in this way is unusual, as addenda tend to be used for larger-scale projects. State requirements for site-specific review for all projects appears to drive their use in this context. More intensive CEQA review correlated with longer timeframes, though individual counties had great variation in timeframes even for similar CEQA processes.

Counties imposed many terms and conditions of approval (TCOAs), with an average number of sixty TCOAs imposed on a project. TCOAs are often related to permitting, compliance, and similar administrative requirements. The types of TCOAs counties imposed on projects varied, as did the proportion of site-specific TCOAs counties imposed on projects. Longer timeframes are not strongly correlated to more TCOAs or more site-specific TCOAs for projects.

In general, projects requiring more public hearings, land-use review processes that required review at a higher level of decisionmaker, or more intensive CEQA review – had more TCOAs, but a lower proportion of site-specific TCOAs or no clear relationship with the proportion of site-specific TCOAs. This outcome raises questions about whether hearings or local land-use or CEQA review processes provide useful site-specific information or feedback for projects.

We found inconsistent correlations between site conditions and TCOAs imposed on projects. Site conditions that pose greater environmental risks – such as steep slopes or a higher number of nearby waterways – would plausibly require more TCOAs and a higher proportion of site-specific TCOAs to address those risks, particularly TCOAs in the environmental and water categories. However, we only found limited correlations between higher site environmental risks and the total number of TCOAs or proportion of site-specific TCOAs. We found stronger relationships between TCOAs and site conditions in the context of hydrography.

We assessed the relationship between whether a project is pre-existing or new and a range of important outcomes, including total TCOAs, the proportion of site-specific TCOAs, and timeframes, while also considering site characteristics (slope and hydrography). With this combined analysis, even accounting for site characteristics, pre-existing projects faced longer timeframes, and tended to have more TCOAs and more site-specific TCOAs overall.

Conclusion

The significant amounts of change in local regulations likely contributed to delays and uncertainty in approving projects. Those changes were driven by local political conflict over cannabis regulation, problems in local drafting of new cannabis regulatory ordinances, and conflict with state CEQA requirements. Ultimately, the result was a regulatory system requiring discretionary review for all projects, hearings for a majority, and some form of site-specific CEQA review for all projects.

The result of this process was a significant number of TCOAs imposed on most projects. Still, it is unclear whether and to what extent these TCOAs were correlated with objective environmental risks for many projects or whether those TCOAs were tailored to specific site conditions. Given the lack of consistent, strong correlations between site conditions and TCOAs, it appears that the regulatory process in counties is only partially driven by the level of risk of individual projects or the need to develop information to impose tailored regulations responsive to that risk. Given the relatively few administrative appeals, we also do not see a regulatory process whose outcomes are mostly driven by neighbor or community opposition. Instead, we see a process in which TCOAs may not correlate consistently with regulatory needs for individual sites,

perhaps reflecting planning departments that are under-resourced and, therefore, cannot tailor regulatory outcomes to the specific challenges of particular projects.

Our research identifies six main policy recommendations to improve cannabis regulation at the local level and changes that require implementation at both the local and state level.

First, more consistency and durability in cannabis regulation would assist with speeding up processes. This could be advanced through preparing a model ordinance with consistent terms and definitions, as well as model TCOAs by the ***Department of Cannabis Control ("DCC")***. The model ordinance could facilitate the implementation of cannabis regulation by new counties with less confusion and uncertainty than existed in our study counties. DCC could also provide guidance on how to undertake CEQA review for the model ordinance, facilitating stream-lined review for individual projects. Independently, counties could review their definitions to provide consistency with state and other county definitions of key terms and audit their use of TCOAs to eliminate unnecessary or redundant ones, ensure consistency across TCOAs within the county, and avoid the use of TCOAs where they do not match local site conditions.

Second, counties should move towards digital data management and online application portals. These tools can reduce costs and uncertainty for applicants, improve approval processes for counties, and facilitate oversight of local regulatory processes by the state and the public.

Third, the state should adjust its CEQA review processes to provide for a realistic ministerial pathway for approval for individual cannabis cultivation projects. This proposal follows from data that indicates that more intense CEQA review and local land-use review for individual projects is adding time but not necessarily adding to tailored environmental regulation that improves outcomes. Such a change reflects the need to balance two different goals under Proposition 64: Advancing the growth of a legal market and ensuring environmental protection. One possible pathway would be to have the DCC review and approve ministerial ordinances and the associated CEQA documentation upfront, ensuring appropriate environmental protection by counties while obviating the need for individualized site-specific review for each case. It is possible statutory changes might be required to achieve this.

Fourth, counties should look to introduce ministerial processes and reduce hearing requirements where possible. Greater use of ministerial processes at the county level could reduce timeframes and uncertainty for applicants without sacrificing environmental outcomes. Our data also indicate that hearings were generally not correlated with tailored regulatory outcomes for individual projects, despite the additional time and cost they impose on applicants and counties. Changes to the state's CEQA process, outlined above, is a likely necessary predicate for such a change at the

county level. Counties should rely on programmatic EIRs (PEIRs) for the overall ordinance that creates any ministerial processes, as this is also a necessary predicate for the development of ministerial approval processes. More generally, counties should use PEIRs as much as possible in developing ordinances, as PEIRs reduce the compliance costs for individual applicants.

Fifth, there is evidence that one driver of the outcomes we observed is a lack of resources and capacity at the county level in planning departments. Lack of resources can delay application processing, resulting in poorly drafted or unclear ordinances, inadequate CEQA compliance, and the use of boilerplate TCOAs that are unnecessary or irrelevant for individual projects but still may impose compliance costs. The state can provide funding and support to applicants and counties to accelerate the development of functional regulatory programs, support the submission of applications (particularly by legacy cultivators), and support county processing of applications. Some rural counties where cannabis cultivation is an important economic contributor have very limited budgets and resources, so state support is particularly appropriate. In addition, some of our recommendations (such as using PEIRs and ministerial ordinances) take analytic and environmental review costs away from applicants and impose them on counties. State support can encourage resource-strapped counties to undertake more of these types of costs.

Finally, the state may want to consider bifurcating the state cannabis license application process to allow accelerated submission and review of materials unrelated to the site. This would allow applicants to reduce the total timeframe for approval from state and local approvals by allowing the state to consider non-site-related materials while the local government undertakes site-related permitting and review.

I. Introduction

This study examines whether local government regulation of cannabis cultivation is advancing the purposes of the California ballot initiative, Proposition 64: The Control, Regulate and Tax Adult Use of Marijuana Act, known as the ***Adult Use of Marijuana Act ("AUMA")*** (Cal. Rev. & Tax Code § 34019(b)(8)). This research explores the extent to which local regulation of non-medical, ***adult-use*** outdoor and mixed-light cultivation is taking cannabis cultivation "out of the hands of the illegal market" and "bring[ing] [it] under a regulatory structure that . . . protects public safety, public health, and the environment" (Proposition 64 § 3(a)).

Though some cultivators have entered the legal market, potentially thousands of cultivators remain outside of the permitted system (United States Department of Agriculture [USDA], 2021). In 2021 California researchers surveyed cannabis farmers in California. Approximately one-third of the 362 cannabis farmers who completed the

anonymous survey reported never applying for a license (Bodwitch et al., 2021). Moreover, non-compliance is likely higher (Bodwitch et al., 2021). In 2021 alone, the California Department of Justice's annual Campaign Against Marijuana Planting ("CAMP") program announced the eradication of nearly 1.2 million illegally cultivated marijuana plants and the seizure of more than 180,000 pounds of illegally processed marijuana (Cal. Office of the AG, 2021).

California's unregulated cultivation activities create safety and environmental challenges and adverse economic impacts, including costs for local governments (Polson & Petersen-Rockney, 2019). The cannabis industry in California is quite large, meaning that its impacts can be significant. Previous research attempted to quantify the cannabis industry's economic impact (Davenport & Caulkins, 2016). Davenport & Caulkins (2016) estimated the value of the US cannabis market at approximately $32 to $37 billion, with California cultivators potentially contributing as much as 80 percent of the US supply of cannabis (Corva, 2014). Those impacts can influence significant portions of the state because cannabis cultivation occurs across California, as noted by studies of the spatial distribution of cannabis cultivation (Bauss, 2017; Butsic et al., 2017; Freisthler et al., 2013), including analyses that use Google Earth images of farm sites to assess the extent, location, and nature of licensed and unlicensed farms in California (Butsic et al., 2018).

Researchers have emphasized the environmental impacts that poorly regulated cannabis cultivation has had on sensitive ecosystems and called on governments to use policy liberalization as an opportunity to address environmental impacts (Bauer et al., 2015; Butsic & Benner, 2016; Carah et al., 2015; Wang, 2017; Warren, 2015). Local governments have sought to address these impacts – prior work has inventoried the planning and land use mechanisms available to local governments to regulate cannabis-related activities (Freisthler et al., 2013).

Cultural, financial, administrative, psychological, and local policy barriers may limit participation in the newly emerging legal cannabis market, disproportionately impacting farmers with fewer resources (Bodwitch et al., 2021). California cultivators characterized the legalization process as excluding ***small*** cultivators, contributing to an increase in illicit sales, and undermining economies in rural communities (Bodwitch et al., 2019). Researchers surveying cannabis farmers in California, therefore, attribute non-compliance with cannabis legalization primarily to an inability to overcome these barriers to entry. However, there is limited research to understand the specific nature of the regulatory barriers to participation in the legal market, including whether local policy and pathways to permitting and licensing create obstacles to entering the legal regulatory framework.

This study fills this gap with a cross-jurisdictional analysis of local commercial cannabis regulations in eleven California counties where the most outdoor cannabis cultivation occurs. We first gathered and analyzed local ordinances and planning documents to understand how counties apply their own and state laws to proposed outdoor and mixed-light cannabis cultivation. We conducted a preliminary analysis of laws and planning codes to identify potential regulatory hurdles to participation in the legal market. We then gathered and examined granular data on how proposed cannabis cultivation projects navigate local law in these counties.

Because this analysis references various parts of California law, this report begins with a discussion of California's state cannabis, land use, and environmental review law to provide key definitions that we use throughout the discussion of methods, findings, and analysis. The report then outlines the methods and research questions and details our findings and policy recommendations.

II. The Legal Background: California Law Applicable to Cannabis Cultivation

Cannabis cultivation in California is an agricultural activity[3] that the state regulates differently than other agriculture for many reasons, including its federal illegality and because of provisions of the AUMA, such as state licensing, mandate strict regulation.[4] Unlike other agricultural activities, state cannabis law requires cultivators to obtain a state license and comply with state regulations that are specific to cannabis, including seed-to-sale ***track-and-trace*** and heightened pesticide testing (Cal. Code of Reg. Tit. 4, Dept. §§15047.2(b)).

State law classifies cannabis as an "agricultural product" for purposes of Division 10 of the Business and Professions Code, which applies to the cannabis regulatory framework (Cal. Bus. & Prof. Code § 26060(a)(1)). However, an FAQ released by the ***California Department of Food and Agriculture*** ("CDFA") states that despite this classification, cannabis' identification as an agricultural product does not extend to other areas of law, such as local "Right to Farm" ordinances that protect agriculture from nuisance lawsuits (CDFA, n.d.-b).[5]

[3] California law generally defines the term "agricultural activity, operation, or facility, or appurtenances thereof" to include, but not be limited to, "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 or on a farm as incident to or in conjunction with those farming operations, including preparation for market, delivery to storage or to market, or delivery to carriers for transportation to market." (Cal. Civ. Code § 3482.5(e)). Cannabis activities are generally consistent with this definition.

[4] Kamin (2013) argues that no other human activity in the United States faces "the disparity in the way the subject is treated" by the three levels of federalism, whereby "it is seen as a serious felony… at the federal level, as something akin to a constitutional right at the State level, and as either a nuisance to be regulated or as a tax source to be exploited at the local level" (Kamin, 2013, p. 152).

[5] The FAQ released by CDFA's Medical Cannabis Cultivation Program states that "the identification [of cannabis] as an agricultural crop does not extend to other areas of the law. For example, cannabis is not an agricultural crop with respect to local 'right to farm' ordinances." California's "Right to Farm" law, codified in California Civil Code § 3482.5(a)(1), limits how local governments regulate

The state cannabis regulatory system is intricate and detailed. California requires cannabis businesses to obtain a state license before operating in the legal market and to comply with extensive state regulations (Cal. Code Regs. Tit. 4 § 15000.1(a)). The state legal market is a closed-loop, and only licensed businesses may transact with one another (Cal. Code Regs. Tit. 4 § 15000.1(b)).

In addition, cannabis businesses must comply with local government ordinances. State law requires a cultivator to obtain local approval from the jurisdiction where the cultivation site is located before applying for a state cannabis license (Cal. Bus. & Prof. Code § 26032(1)-(2)). State law also imposes procedural and substantive requirements on local government regulatory processes—such as the ***California Environmental Quality Act ("CEQA")*** and state cannabis laws (Cal. Code Regs. Tit. 4 § 15010(b)).[6]

Assessing California's regulation of cannabis cultivation, therefore, necessitates a review of a multi-level approval process that involves both local and state law. Local jurisdictions process, approve and deny applications to cultivate cannabis. Thus, our study requires assessing how counties regulate the development of outdoor[7] and mixed-light[8] cannabis cultivation and the regulatory tools they use to control development.

In a typical land use process, jurisdictions maintain discretion over whether to approve to develop land at all. Thus, the first procedural step, called the entitlement process (O'Neill et al., 2021), requires project proponents to obtain a land use entitlement before applying for a ***building permit***[9] (O'Neill et al., 2021). However, in the cannabis context, many cannabis cultivation sites have operated for decades, with existing infrastructure, including buildings, greenhouses, graded areas, ponds, and

agricultural activity, such as their ability to declare commercial agricultural activity operated by following accepted customs and standards for three or more years a nuisance if it was not a nuisance at the time it began. Local governments may, however, adopt ordinances that allow notification to prospective homeowners that the dwelling is in close proximity to an agricultural activity (Cal. Civ. Code § 3482.5(d)).

[6] We focus only on the components of California land use law connected to outdoor and mixed-light cannabis cultivation that are relevant to this research study, i.e., the components of the approval process that local governments impose on project proponents before they are eligible to receive a state-issued annual license.

[7] For the purposes of this study, "outdoor cultivation" is defined as: "the cultivation of mature cannabis without the use of artificial lighting in the canopy area at any point in time" (Cal. Code Regs. Tit. 4 §15000(xx)). We rely on the Department of Cannabis Control's definition as contained in the Department of Cannabis Control Medicinal and Adult-Use Commercial Cannabis Regulations California Code of Regulations Title 4, Division 19, Department of Cannabis Control, § 15000(xx). The DCC's definition of outdoor cultivation in subsection (xx) was changed to remove light-deprivation on July 6, 2022. Each study county has its own definition of "outdoor" cultivation.

[8] For the purposes of this study, "mixed-light cultivation" is defined as: "the cultivation of mature cannabis in a greenhouse, hoop-house, glasshouse, conservatory, hothouse, or other similar structure using a combination of: (1) Natural light, and either of the models listed below: (A) 'Mixed-light Tier 1' without the use of artificial light or the use of artificial light at a rate above zero, but no more than six watts per square foot; (B) 'Mixed-light Tier 2' the use of artificial light at a rate above six and below or equal to twenty-five watts per square foot" (Cal. Code Regs. Tit. 4 §15000(ss)). We rely on the Department of Cannabis Control's definition, contained in the Department of Cannabis Control Medicinal and Adult-Use Commercial Cannabis Regulations California Code of Regulations Title 4, Division 19, Department of Cannabis Control § 15000(ss). Each study county has its own definition of "mixed-light" cultivation.

[9] A building permit is an authorization from a local government giving permission to an applicant to construct or build a project. Building permits are required for not only new construction projects but also renovation and remodeling projects. A building permit is put in place to allow a local jurisdiction to assess the compliance of the building and construction process based on the health and safety requirements of the applicable building and fire codes.

water storage. Therefore, even when local governments maintain discretion over development, already developed and operating cultivation sites move through an entitlement process typically applied pre-development, making them atypical compared to most development projects. Thus, some counties with existing cultivators have created ordinances requiring cultivators to obtain building permits through an "as-built" permit process[10] while simultaneously navigating the land use entitlement process. This is designed to accommodate existing unpermitted buildings, residences, greenhouses, and sheds constructed before cannabis legalization.

A. State Regulation of Commercial Cannabis Activity

The basic structure for California's cannabis regulatory program and the issuance of state cannabis licenses is articulated in the Medicinal and Adult-Use Cannabis Regulation and Safety Act ("MAUCRSA"). Every person or business that engages in ***commercial cannabis activity*** must obtain a cannabis license from the Department of Cannabis Control ("DCC") (Cal. Code Regs. Tit. 4 § 15000.1(a)). In addition to cannabis-specific laws, cannabis businesses must abide by laws applicable to all California businesses, including regulations governing waste disposal, employee rights, and tax remittance (Cal. Code Regs. Tit. 4 § 15011(a)(3); Cal. Bus. & Prof. Code § 26065; Cal. Rev. & Tax. Code § 34021.5).

The MAUCRSA established a dual local-state licensing structure whereby a cannabis business must obtain approval to conduct commercial cannabis activity from both the local government where the business is located and the DCC prior to operating in the legal market (S.B. 94 2016-2017, Reg. Leg. Sess. 2017). First, a cultivator must obtain "local approval" from the city or county where they are located in the form of a "local permit, license, or other authorization" (Cal. Bus. & Prof. Code § 26032(1)-(2)). Second, a cultivator must obtain a state license from the DCC[11] in order to participate in the commercial licensed market, including cultivating or selling cannabis. The state has issued three different types of state licenses since 2018: The ***Temporary, Provisional,*** and ***Annual license*** (Cal. Code Regs. Tit. 4 § 15001 & § 15002; Cal. Code Regs. Tit. 3, Div. 8 § 8100).

A cultivator may obtain local approval and start developing their site as permitted by the local government; however, they may not commence commercial cannabis activity (including planting cannabis) until they have received a state license (Cal. Code

[10] Nevada county defines the "as-built permit process" as follows: "When a [project proponent] purchase[s] or construct[s] a building without the benefit of plans, a permit, and inspections, the structure may not be in compliance with Building Codes and may, in fact, be unsafe. The purpose of the Building Codes is to establish minimum requirements to safeguard public health, safety, and general welfare. The 'as-built' permitting process will bring [a] project into compliance with the Building Codes" (Cnty. of Nevada Community Development Agency [NCDA], n.d.).

[11] Prior to July 2021, cannabis cultivators applied for a state cultivation license from the California Department of Food and Agriculture ("CDFA") CalCannabis division. In 2021, CDFA's CalCannabis division was consolidated into the Department of Cannabis Control.

Regs. Tit. 4 § 15000.1(a)). Local and state regulations of cannabis cultivation run on two separate tracks, often with overlapping and duplicative requirements (CDFA, 2018). Forty-four percent of local governments in California allow at least one type of cannabis business and each jurisdiction may craft its own unique regulations applicable to cannabis businesses (Cal. State Senate, 2023).

1. Pre-Legalization: California Voters Pass Proposition 215 in 1996

The MAUCRSA represents a culmination of the development of state cannabis regulation over more than 20 years. California was the first state to decriminalize non-commercial medical cannabis use and possession in 1996. Proposition 215, also known as the ***Compassionate Use Act ("CUA"),*** made it legal for patients with serious illnesses[12] to use cannabis for medical purposes if recommended by a licensed physician and for their designated primary caregivers[13] to cultivate cannabis (Compassionate Use Act of 1996, § 11362.5(d)). The CUA protected qualified patients and primary caregivers from prosecution related to the possession and cultivation of cannabis for medical purposes.

The CUA was a landmark piece of legislation but created no statewide regulatory framework for the cultivation, ***processing***, and distribution of cannabis; provided no guidance to law enforcement; and did not instruct local governments on how to implement cannabis activity through their zoning and land use planning (Vitiello, 2013). Despite this regulatory uncertainty, cannabis ***cultivation*** proliferated. Cannabis cultivation and possession is federally illegal, and to avoid detection, cultivation occurred primarily in remote, rural areas and with little oversight from state regulatory agencies (Governor et al., n.d.).

After seven years of uncertainty, the California legislature passed ***Senate Bill 420*** (the "Medical Marijuana Program Act") in 2003 to address the gaps in the CUA. Senate Bill 420 allowed local governments to pass additional medical marijuana laws consistent with State law and removed penalties for patients and caregivers who cultivated cannabis "collectively or cooperatively" (Cal. H&S Code §§ 11362.775-11362.83). After the enactment of Senate Bill 420, cultivation sites multiplied as cannabis cultivators operated under the affirmative defense provided by State law if operating as a non-profit collective or cooperative (MacEwan et al., 2017). In 2015, the Blue Ribbon Commission on Marijuana Policy, chaired by then Lt. Governor Gavin Newsom, stated that "local officials in Northern California estimated there are more than 30,000 cannabis gardens in the Emerald Triangle region of the State alone" (Newsom, 2015, p. 12). Despite more clarity at the State level, cannabis remained federally illegal,

[12] Cancer, anorexia, AIDS, chronic pain, spasticity, glaucoma, arthritis, migraine, or any other illness for which marijuana provides relief (Cal. H&S Code § 11362.5(b)(1)(A)).

[13] "Primary caregiver" refers to an individual who has "consistently assumed responsibility for the housing, health, or safety of a medical cannabis patient" (Cal. H&S Code §11362.5(e)).

and the U.S. Drug Enforcement Administration ("DEA") and California Department of Justice[14] continued to conduct raids on cannabis cultivators, primarily in the Emerald Triangle (Campaign Against Marijuana Planting, 2005).

Federal law enforcement is a key reason why large-scale cannabis cultivation was rare, and cannabis farms, in the aggregate, are still relatively small compared to other crops grown in California (Vanderheiden, 2021). Cultivators often used small and clandestine sites to avoid detection (Bauer et al., 2015). Cultivation of anywhere between 100-999 cannabis plants is a federal felony triggering a ***mandatory minimum sentence*** of five years in prison (21 USC 841(b)(1)(B)(vii)). To attempt to avoid the mandatory minimum sentence, California doctors issued "so-called "cultivation certificates" for up to 99 plants, just below the 100-plant threshold that would trigger a mandatory minimum sentence (Cal. Nt'l. Org. for the Reform of Marijuana Laws, 2022). Although the square footage used to cultivate 99 plants may vary based on plant size and spacing, anecdotal evidence suggests that this typically resulted in cultivation sites of less than one acre in size (Schwab & Butsic, 2016).

The US Department of Justice ("DOJ") maintains prosecutorial discretion over federal law enforcement of the ***Controlled Substances Act ("CSA")***, so federal action taken against State-legalized marijuana activity has varied across administrations. Faced with ever-increasing State medical marijuana laws— and eventually recreational use laws—the Obama DOJ issued memoranda outlining its stance on marijuana. In 2009, Deputy Attorney General David W. Ogden guided federal prosecutors to "not focus federal resources on individuals whose actions are in clear and unambiguous compliance with existing state laws providing for the medical use of marijuana." In 2011, Deputy Attorney General James M. Cole clarified the Ogden Memorandum, stating that "large-scale, privately-operated industrial marijuana cultivation facilities" and "commercial dispensaries" violated the CSA, resulting in increased federal prosecution (US Dept. of Justice, Office of the AG, 2011). Cole issued another memorandum in 2013 after voters in Colorado and Washington authorized recreational cannabis use through a ballot initiative. The guidance stated that the DOJ would not bring legal challenges against jurisdictions that legalized marijuana in some fashion if strict regulatory controls were in place ("Justice Department Issues Memo: Guidance Regarding Marijuana Enforcement," 2013). It instructed federal prosecutors to direct resources toward eight criminal activities:

1. distribution to minors.

[14] Joint federal-state-local enforcement was often coordinated through the Campaign Against Marijuana Planting ("CAMP"). Headed by the California Department of Justice, CAMP includes local, state and federal agencies that work to eradicate illegal indoor and outdoor cannabis cultivation and trafficking throughout California. The U.S. Drug Enforcement Administration, Bureau of Land Management, U.S. Forest Service, California National Guard, California State Parks, California Department of Fish and Wildlife, California Highway Patrol and dozens of local police and sheriff departments from across the State have participated in the program (CAMP, 2005).

2. diversion of revenue to criminal enterprises, gangs, and cartels.
3. diversion from states where possession is legal to ones where it is not.
4. trafficking of other illegal drugs under the pretext of authorized marijuana activity.
5. using firearms or violence in cultivation or distribution.
6. drugged driving or adversely impacting public health.
7. cultivation on public lands.
8. and possession on federal property.

The DOJ's approach shifted again in 2018 under the Trump Administration when U.S. Attorney General Jeff Sessions rescinded the previous guidance documents and emphasized expanding enforcement against cannabis activities ("Justice Department Issues Memo on Marijuana Enforcement," 2018). However, the impact of this shift was limited because the "Rohrabacher-Farr Amendment" passed in 2014 by Congress "prohibited the DOJ from using any of the funds to prevent states that had passed medical marijuana laws from implementing their state laws that authorize the use, distribution, possession, or cultivation of medical marijuana" (H.R.3547 - Consolidated Appropriations Act, 2014).

In 2021, under the Biden Administration, U.S. Attorney General Merrick Garland indicated that the federal government would be returning to the policies of the Obama Administration. However, the Department of Justice has not yet formally reinstated those guidance documents ("AG Garland Reconfirms the DOJ's Hands-Off Approach Toward Federal Marijuana Prosecution," 2021; The Leadership Conference on Civil and Human Rights, 2021). On March 1, 2023, during a Senate Judiciary Committee Hearing, AG Garland reiterated that the Department of Justice is "still working on a marijuana policy" and that "it will be very close to what was done in the Cole Memorandum" (US Senate Comm. on the Judiciary, 2023).

Despite the vagaries of federal enforcement policy, for ten years after the passage of Senate Bill 420, cannabis cultivation expanded throughout California (Newsom et al., 2015). Despite this proliferation, California state law and U.S. Attorney General memoranda failed to consider or address the zoning and land use component of cannabis cultivation operations.

Some large cities such as Oakland, San Francisco, and Los Angeles began to regulate medical cannabis retailers (dispensaries) by requiring them to obtain a business license (Brown, 2008). For years, local governments sought guidance from the state about regulating the industry, as there wasn't a clear roadmap to regulate these businesses, particularly the supply chain (including cultivation). If a local government, like Oakland, permitted dispensaries, it was as if "the products on the shelves fell like

divine mana" into the dispensary, as there wasn't a formal structure for where those products came from (Gateway, 2016).

Mendocino County endeavored to create cannabis cultivation land use regulations and received negative attention from the federal government. In 2010 Mendocino established the first permitted cannabis program in California by adopting Chapter 9.31 of the county code, which allowed cultivators to cultivate up to ninety-nine (99) plants if they obtained and abided by the conditions of a permit issued by the Mendocino County Sheriff's Office (Mendocino Cty. Ordinance No. 4356, § 9.31.030(L)). Conditions included site inspections and the requirement of purchasing a zip tie from the Sheriff to be attached to the base of each plant; this was described as the "9.31 Permit Program" (Anderson, 2014). In 2012, U.S. Attorney for California's Northern District Melinda Haag threatened to sue Mendocino County over its marijuana program, asserting the licensing scheme was inconsistent with federal law (*Federal Crackdown Leaves Mendocino's Pot Program Seemingly on Last Legs | KQED*, 2012). In response to a directive from the United States Department of Justice, Mendocino eliminated the 9.31 Permit Program (Montgomery, 2012).

By 2015, California regulated cannabis through Prop 215 and SB 420, several lawsuits, and a guidance memo issued by the California Attorney General (Brown, 2008). None of these discussed the local land use regulation of cannabis. Cannabis also remained (and remains) illegal under federal law. Moreover, federal enforcement memoranda never discussed local zoning and land use regulations, as all cannabis activity is illegal and thus prohibited.

2. Medical Cannabis Regulation: The California State Legislature Passes the Medical Marijuana Regulation and Safety Act (MMRSA) in 2015

In 2015, after nearly 20 years of ambiguity, the California State Legislature created a comprehensive statewide licensing and regulatory framework for the cultivation, manufacturing, transportation, testing, distribution, and sale of medicinal cannabis through a trio of bills[15] known as the ***Medical Marijuana Regulation and Safety Act*** or ***"MMRSA"*** (later renamed to the Medical Cannabis Regulation and Safety Act ("MCRSA")) (S.B. 643, Reg. Leg. Sess. 2015-2016 (Cal. 2015)).

When the MMRSA was envisioned by the legislature in 2015, the public's support for cannabis legalization in California was increasing, and four different marijuana initiatives were attempting to qualify for the 2016 ballot (California Legislative Information [LegInfo], 2015). The legislature recognized that if the State could create a comprehensive framework for medical marijuana, it could also play a dual role by serving as a basis for an adult-use cannabis scheme (LegInfo, 2015).

[15] The trio of bills that make up the Medical Marijuana Regulation and Safety Act are Assembly Bill 243, Assembly Bill 266, and Senate Bill 643.

The MMRSA explicitly addressed for the first time the role of local governments in zoning and land use regulation for cannabis cultivation (A.B. 243, 2015-2016 Reg. Leg. Sess. (Cal. 2015)). The statute stated, "…without limiting any other local regulation, a city, county, or city, and county, through its current or future land use regulations or ordinance, may issue or deny a permit to cultivate medical marijuana" (A.B. 243, 2015-2016 Reg. Leg. Sess. (Cal. 2015)).

The MMRSA legalized commercial, medicinal cannabis activity and created seventeen license classifications, including retail, cultivation, manufacturing, testing, transportation, and distribution (Cal. Bus. & Prof. § 19300 (2016)). Cultivation license types were based on the growing modality and the size of the cultivation area. Table 73 describing the cultivation license types is included in Appendix A (A.B. 266, 2015–2016 Reg. Leg. Sess. (Cal. 2015); Cal. Bus. & Prof. Code § 19300.7 (g)–(i) (2016)). The MMRSA required three state agencies to regulate different silos of the industry, including the Bureau of Medical Marijuana Regulation ("BMMR"), the ***California Department of Food and Agriculture ("CDFA")***, and the California Department of Public Health ("CDPH") (Cal. Bus. & Prof. § 19300). The MMRSA regulated and taxed the cannabis industry and sought to bring illicit operators into the regulated market (Cal. Bus. & Prof. § 19300). The MMRSA provided legal definitions for cannabis-related activities and uses, such as cultivation, nurseries, and ***canopy***; classified cannabis as an agricultural product subject to environmental, pesticide, land conversion, energy, and water diversion regulations; and authorized counties to collect tax on cannabis sales (A.B. 243, 2015-2016 Reg. Leg. Sess. (Cal. 2015)).

The MMRSA contained an inadvertent drafting error which provided that if local governments did not have medical cannabis cultivation land use regulations in place by March 1, 2016, they would lose local control, and CDFA would be the sole licensing authority for medical cannabis cultivation (LegInfo, 2016). The March 1, 2016, deadline created a flurry of local policy development, whereby many local jurisdictions rushed to enact local regulations, including bans, ahead of the deadline due to fear of CDFA becoming the sole licensing authority (Cal. State Assoc. of Counties, 2015). To resolve the inadvertent drafting error, AB 21 passed on February 3, 2016, and deleted the provision regarding local control so that local governments had the same local control over cannabis cultivation as they do over all other cannabis licensing categories (LegInfo, 2016). Despite the deadline being resolved, more than 160 local jurisdictions either approved or introduced bans on cultivation in a flurry described by the cannabis industry as "banapalooza" (Schroyer, 2021). As of May 2022, many bans remain, as more than half of California's local governments do not allow any cannabis business to operate in their area (Jaeger, 2022).

3. Adult-Use Legalization: California Voters Pass the Control, Regulate and Tax Adult Use of Marijuana Act ("AUMA") in 2016

Shortly following the passage of the MMRSA, in November 2016, California voters passed Proposition 64, the "Control, Regulate and Tax Adult Use of Marijuana Act" ("AUMA"), legalizing the adult-use of cannabis. The AUMA permitted the use of cannabis for adults 21 years of age or older and established a Statewide commercial market and licensing framework. The AUMA outlines 19 different types of licenses – most of which mirror the 17 licenses created by the MMRSA (Cal. Bus. & Prof. § 19300.7(a)–(j)). Table 73 describing the cultivation license types is included in Appendix A. The AUMA kept the same cultivation license structure created in the MMRSA and added the Type 5 ***"Large"*** cultivation license for a canopy size over 1 acre for outdoor cultivation or 22,000 square feet for mixed-light and ***indoor cultivation*** sites.

The AUMA prohibited the state licensing agency from issuing a Type 5 license before January 1, 2023 (Cal. Bus. & Prof. § 26061(d)). Despite Type 5 licenses being prohibited until January 1, 2023, the State cannabis agency allows cultivators to obtain multiple Type 1 or Type 2 licenses with a cumulative acreage exceeding the allowance of any one license, a practice known as "license stacking" (Aldairi, 2020). For example, by license stacking, a cultivator can apply for ten (10) Small Type 2 licenses, each for 10,000 square feet, allowing the cultivator to develop a site to cultivate 100,000 square feet of cannabis. In 2017, the California Growers Association, a cannabis industry trade association representing cannabis farmers, filed a lawsuit against CDFA over the regulation allowing cultivators to "stack" licenses, arguing that the regulation violated the intent of Proposition 64 by creating a loophole that allowed cultivators to grow an unlimited number of plants by stacking licenses and that without a cap on farm size, small and medium-sized family farms would be driven out of the market by industrial-sized farms, frustrating one of the goals of Proposition 64 to prioritize small and medium cannabis businesses (Maxwell, 2018).[16]

4. Post-Legalization: The California State Legislature Passes the Medicinal and Adult-Use Cannabis Regulation and Safety Act ("MAUCRSA") in 2017

In the wake of the passage of Proposition 64, the State Legislature repealed the MCRSA[17] and harmonized the medical and adult-use statutes under a single new adult-use and medical cannabis law. In June 2017, the California State legislature passed a budget trailer bill, SB 94 (Cal. Secretary of State, 2017), that integrated the MCRSA with

[16] Section 2(J) regarding Findings and Declarations of the AUMA states: "The Adult Use of Marijuana Act ensures the nonmedical marijuana industry will be built around small and medium businesses by prohibiting large-scale cultivation licenses for the first five years. The Adult Use of Marijuana Act also protects consumers and small businesses that participate in the non-medical marijuana industry."

[17] The MMRSA was renamed the Medical Cannabis Regulation and Safety Act ("MCRSA"), changing the word "marijuana" to "cannabis" in 2016 via Senate Bill 837 (S.B. 837, 2015–2016 Leg., Reg. Sess. (Cal. 2016), Bus. & Prof. § 19332(d)).

the AUMA[18] to create the ***Medicinal and Adult-Use Cannabis Regulation and Safety Act ("MAUCRSA")*** (S.B. 94, 2017–2018 Reg. Leg. Sess. (Cal. 2017)). SB 94 sought to reconcile the differences between the AUMA and the MCRSA and create one unified regulatory licensing framework for the medicinal and adult-use commercial cannabis markets. Table 73 comparing the license types created by the MMRSA, AUMA, and MAUCRSA is included in Appendix A.

SB 94 continued to classify cannabis as an agricultural product placing it under the supervision of the Department of Food and Agriculture ("CDFA") CalCannabis Cultivation Program (S.B. 94, § 26069(a)). CDFA was charged with establishing programs for a comparable-to-organic cannabis certification, known as the "OCal Program" (CalCannabis - OCal Program, n.d.); the Cannabis Appellations[19] Program (Cannabis Appellations Program [CAP], 2022); and tracking and tracing the movement of cannabis products through the supply chain, known as "***track-and-trace***" (Cal. Bus. Prof. Code § 26067(a)). Finally, SB 94 contains two other provisions with implications for local zoning and land use regulations (Froehlich, 2019). Firstly, it defines several terms related to the cannabis industry that could serve as the model language for definitions in local zoning ordinances (Cal. Bus. & Prof. Code § 26001). Secondly, it prohibits cannabis businesses from being located within a 600-feet radius of a K-12 school or other locations where children might be present[20] unless a local authority specifies a different radius (Cal. Bus. & Prof. § 26054(b)) that is less than 600-feet (BCC Regs. § 5026(b)).

Figure 1 describes the timeline of state and federal legislation and enforcement guidance since the Controlled Substances Act ("CSA") passed in 1970.

[18] The AUMA limits the ability of the State legislature to modify the AUMA. The legislature may enact laws to implement the AUMA by a majority vote, provided such laws are consistent with "the purposes and intent" of the AUMA (AUMA, Section 26000(c)). This limits the State legislature's ability to modify the regulatory system, or substantially change the license structure.

[19] An appellation of origin is a protected designation that identifies the geographical origin of a product and usually includes production requirements. CDFA's Cannabis Appellations Program will "help prevent the misrepresentation of a cannabis good's origin and promote regional collaboration around cannabis production" (CDFA Cannabis Appellations Program [CAP], n.d.).

[20] "Daycare center" is defined as "a child day care facility other than a family day care home, and includes infant centers, preschools, extended day care facilities, and school age child care centers, and includes child care centers licensed pursuant to Section 1596.951" (Cal. Health & Safety Code § 1596.76), and "youth center" is defined as "any public or private facility that is primarily used to host recreational or social activities for minors, including, but not limited to, private youth membership organizations or clubs, social service teenage club facilities, video arcades, or similar amusement park facilities" (Cal. Health & Safety Code § 11353.1(e)(2)).

Figure 1: TIMELINE OF AMERICAN LEGISLATION & ENFORCEMENT GUIDANCE REGARDING CANNABIS-RELATED ACTIVITIES
Federal = Blue **State = Orange**
1970 – Controlled Substances Act (CSA) passed 1996 – Proposition 215 (Compassionate Use Act) approved 2003 – Senate Bill 420 (Medical Marijuana Program Act) passed 2008 – Brown Attorney General Guidelines Memorandum issued 2009 – Odgen DOJ Memorandum issued 2011 – Cole DOJ Memorandum I issued 2014 – Cole DOJ Memorandum II issued 2014 – Omnibus spending bill places enforcement restrictions on DOJ 2015 – Medical Marijuana Regulation and Safety Act (MMRSA) passed 2016 – Proposition 64 (Control, Regulate, and Tax Adult Use of Marijuana Act) approved 2017 – Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA) passed 2018 – AB 3261 passed 2018 – SB 1459 passed 2019 – California Budget Trailer Bills AB 97 and SB 97 passed 2021 – California Budget Trailer Bill AB 141 and SB 160 passed

5. Overview of the State Licensing System

To engage in commercial cannabis activity, including cultivating and selling cannabis, a business must obtain a license from the State licensing agency. Initially, three State licensing agencies managed different aspects of the cannabis industry. However, the State legislature consolidated them into a single Department of Cannabis Control ("DCC") on July 12, 2021 (Cal. Bus. & Prof. § 26010.7(a)). The DCC is responsible for regulating cannabis, issuing licenses, and conducting enforcement against unlicensed commercial cannabis activity (Cal. Bus. & Prof. § 26012(a)). Table 1 describes the cannabis licensing agencies from 2017 to 2022.

Table 1: STATE CANNABIS REGULATING PROGRAMS FROM 2017-2022						
	CULTIVATION	**MANUFACTURING**	**DISTRIBUTION**	**TESTING**	**RETAIL**	**MICROBUSINESS**
2017-2021	CDFA CalCannabis	CDPH Manufactured Cannabis Safety Branch	CDA Bureau of Cannabis Control	CDA Bureau of Cannabis Control	CDA Bureau of Cannabis Control	CDA Bureau of Cannabis Control
JULY 12, 2021-PRESENT	Department of Cannabis Control					

On January 1, 2018, the CDFA began issuing licenses for cannabis cultivation sites. Three factors determine what type of license cannabis cultivation operations require:

(1) the size of the canopy area (the area where ***mature plants*** are grown).

(2) the kind of lighting used, either indoor, outdoor, or mixed-light; and

(3) if the site will engage in processing[21] or ***nursery***[22] activity.

For this study, we are researching outdoor and mixed-light cultivation exclusively. These license types allow a cultivator to grow mature plants and harvest them to produce cannabis flowers. However, they do not allow cultivators to sell clones or seeds or process other licensees' cannabis.

A business must apply for a state license by providing the state licensing agency:

(1) evidence of local approval[23] for the cultivation site (either a local permit, license, or other authorization) and;

(2) a license application that demonstrates the applicant complies with state cannabis laws and regulations.

[21] Businesses must obtain a ***processing*** license if they wish to ***process*** cannabis including drying, curing, trimming, and packaging cannabis, or making ***pre-rolls*** for other cannabis licensees.

[22] Businesses must obtain a nursery license if they intend to grow seedlings and immature plants for use by other cannabis businesses or to sell seeds and immature plants to consumers.

[23] California State law defines "local approval" as a "license, permit, or other authorization from the local jurisdiction" (Cal. Code Regs. tit. 4 § 15002(c)(24)). This definition might not include a land use entitlement that is not a permit or license, such as a Development Agreement. However, the catch all "or other authorization from a local jurisdiction" may cover other land use entitlements that do not fit into the permit or license category.

The MACURSA requires cannabis cultivators to comply with several state regulatory programs, including:

(1) ***The State Water Resources Control Board ("SWRCB")*** Cannabis Cultivation Policy[24], which ensures that "the diversion of water and discharge of waste associated with cannabis cultivation does not have a negative impact on water quality, aquatic habitat, riparian habitat, wetlands, and springs" (State Water Resources Control Board [SWRCB], 2019). In 2016, the State Legislature passed Senate Bill 837 ("SB 837"), a budget-trailer bill that required the SWRCB to "adopt principles and guidelines for the diversion and use of water for cannabis cultivation" in consultation with the California Department of Fish and Wildlife ("CDFW") and CDFA (S.B. 837, 2015–2016 Leg., Reg. Sess. (Cal. 2016)). The law requires cannabis cultivators to identify their source of water supply in their license application.

(2) ***California Department of Fish and Wildlife ("CDFW")*** Lake and Streambed Alteration ("LSA") Agreement[25] requirements (Cal. Dept. of Fish & Wildlife, n.d.; Cal. Bus. & Prof. Code § 26060.1(b)(3)).

(3) ***California Division of Occupational Safety and Health ("Cal/OSHA")***[26] regulations applicable to all California employers that "protect…employees from all health and safety hazards associated with their work" (Cal. Dept. of Industrial Relations, 2021).

(4) ***If applicable, the State Water Resources Control Board ("SWRCB")*** **Cannabis Small Irrigation Use Registration ("SIUR") Program** (Cal. Bus. & Prof. Code, § 26060.1(a)(2)(A)(i)). The SIUR Program established a new appropriative water right applicable to cannabis surface water diverters that allows them to store water during the winter for use in the summer (SWRCB, 2017).

(5) ***California Department of Pesticide Regulation Guidelines*****.** Cannabis cultivators must comply with the Department of Pesticide Regulation ("DPR") guidelines for the use of pesticides in cannabis cultivation. These guidelines are significantly stricter than those for other crops, as they have a minimal list of approved chemicals and much lower tolerance thresholds. No pesticide product is federally registered for use on cannabis (California Department of

[24] All cultivator license types except processors must provide evidence of a Notice of Applicability letter or a Notice of Non-Applicability from the SWRCB (See Cal. Code Regs. tit. 4 §15011(a)(3))).

[25] Cultivators must provide a copy of any final lake or streambed alteration agreement issued by the CDFW, pursuant to sections 1602 or 1617 of the Fish and Game Code, or written verification from CDFW that a lake and streambed alteration agreement is not required (See Cal. Code Regs. tit. 4, §15011(a)(8)).

[26] If a cannabis business has more than one employee, the applicant shall "attest that the commercial cannabis business employs or will employ within one year of receiving a license, one supervisor and one employee who have successfully completed a Cal-OSHA 30-hour general industry outreach course offered by a training provider that is authorized by an OSHA Training Institute Education Center to provide the course" (Cal. Code Regs. tit. 4 §15002(b)(28)).

Pesticide Regulation [DPR], n.d.), which limits the number of pesticides used on a cannabis plant. Pesticide products can be legally used on cannabis provided the active ingredient is exempt from residue tolerance requirements, or the product is either exempt from registration requirements or registered for a use that is broad enough to include use on cannabis (DPR, 2021). Such pesticides include azadirachtin, castor oil, citric acid, garlic oil, geraniol, neem oil, and peppermint oil (DPR, 2017).

The MAUCRSA required the State to establish a ***track-and-trace*** program (Cal. Bus. Prof. Code § 26067(a)). All licensees must use the California Cannabis Track and Trace ("CCTT") system to track the movement of cannabis and cannabis products through the supply chain, known as "seed to sale" tracking (California Department of Cannabis Control [DCC], n.d.).

Cultivators must renew their State license annually, and licensees must comply with ongoing compliance requirements, including notifying the licensing agency of any changes to the business, passing inspections, and remitting cannabis taxes to the ***California Department of Tax and Fee Administration ("CDTFA")*** (RTC Code § 34012(a)). As of December 2, 2022, the California cannabis industry was carrying $250,410,890 in unpaid sales and cannabis taxes, out of a $4.4 billion total in taxes due, according to data from CDTFA (Schroyer, 2022-b). The DCC can address license violations using fines, embargoes, abatement orders, and license suspension or revocation (DCC, 2021-b).

6. State License Types

Between January 1, 2018, and July 12, 2021, the CDFA CalCannabis Division approved applications to cultivate cannabis.[27] The DCC assumed this role after agency consolidation on July 12, 2021. The State has issued three different types of State licenses: the ***Temporary license***, the ***Provisional license***, and the ***Annual license.***

a. The Temporary License Was Designed to Transition Pre-Existing Cultivators into the Legal Market

State regulation designed the temporary license to transition the pre-existing cannabis market into the licensed regulatory framework. The MAUCRSA authorized the State licensing authorities to issue temporary licenses for a term of 120-days with opportunities for 90-day extensions until January 1, 2019 (Cal. Bus. Prof. Code § 26050.1(a)-(b)). On December 18, 2017, CDFA launched its online licensing system

[27] Cultivators grow cannabis plants that are harvested, sold as flower, and made into products. Their operations look like other agricultural operations in California. Cannabis cultivation is a multi-step process that includes: preparing the soil and growing medium; planting seeds or clones; irrigating, fertilizing, and managing pests; harvesting plants; and drying, curing, and trimming plants.

and began accepting applications for temporary commercial cannabis licenses (DCC, 2017). CDFA began issuing temporary licenses on January 1, 2018.

The temporary License required proof of local authorization (either a valid license, permit, or other authorization issued by the local jurisdiction) (Cal. Bus. Prof. Code § 26050.1(a)(2)). If a local jurisdiction had not issued a permit, license, or land use entitlement, the "local authorization" could take any form, including a letter, affidavit, permit application, business license, or another document that specifies that the applicant is authorized to conduct commercial cannabis activity. A Temporary License is a conditional license that authorizes the licensee to engage in commercial cannabis activity for a limited time without completing the Annual license application requirements, including starting CEQA review (Cal. Bus. Prof. Code § 26050.1).

The State issued temporary licenses at no cost, and licensees did not have access to the online track-and-trace software. Still, they were obligated to maintain paper records tracking the movement of cannabis through the supply chain. Temporary licenses issued in January 2018 started to expire in May 2018. State regulation allowed temporary licenses to be extended for additional 90-day periods if the licensee completed and submitted an annual cannabis license application before the temporary license's expiration date (DCC, 2018).

In August 2018, Senator Cannella raised the alarm that "local governments need[ed] additional time to process the significant number of permit applications" and authored Senate Bill 1459 to give the State cannabis agencies the authority to issue a new type of license, the "Provisional" license (California Legislative Information [LegInfo], 2018; Senate Committee on Business, Professions and Economic Development, 2018). SB-1459 authorized the State licensing authorities to issue a Provisional license for 12 months if: (1) at any point in time, the applicant held a Temporary license for the same premises and commercial cannabis activity for which they were seeking a Provisional license; and (2) the applicant had submitted a completed license application including evidence that compliance with CEQA was underway (LegInfo, 2018). In justifying the need for the change to State law, Senator Cannella explained that "many cannabis businesses currently in possession of temporary licenses are still waiting for final approvals while local jurisdictions conduct CEQA reviews, complete their Conditional Use Permit processes and/or issue building permits" (LegInfo, 2018).

Humboldt County explained its challenges in issuing permits:

> "Rural counties like Humboldt have inherently smaller staffs, reflective of a more rural population. Yet, Humboldt in particular is a very desirable location for many cannabis cultivators to grow their product. As a result of Proposition 64's passage and the crisp time frame for permittees to

apply first to the local agency for a local permit and then for a temporary state license, there are over 900 temporary permits issued in Humboldt with a corresponding number of temporary State licenses. These temporary State licenses will expire at the end of the year or 120-days after issuance; whichever is later. An impossible task lies ahead for our staff to finalize all 900 local permits to enable issuance of annual licenses without assistance from the State" (LegInfo, 2018).

On September 27, 2018, the State legislature passed Senate Bill 1459 ("SB 1459"), providing CDFA with the discretion to issue Provisional licenses as a bridge between Temporary licenses and Annual licenses. Temporary licensed businesses who had not completed their local land use process and CEQA review but still needed to operate could obtain a Provisional license as a stop-gap measure while they completed their local land use entitlement process (LegInfo, 2018).

b. The Provisional License Is a Bridge Between Temporary and Annual Licenses

The ***Provisional License*** is subject to annual licensing fees, track and trace, and all other statutory and regulatory obligations, except for CEQA compliance is complete. DCC spokesperson Christina Dempsey explained that Provisional licenses were created to "make it easier for the industry to keep growing and selling marijuana while preparing for full licensure…it was sort of another version of what 'temporary' licenses did, which was moving people from pre-Proposition 64 days into the regulated market" (Schroyer, 2022-a). To obtain a Provisional license, an applicant must submit a complete Annual license application to the DCC with evidence that compliance with the CEQA[28] and local ordinances[29] are underway (Bus. & Prof. Code § 26050.2(a)(1)(A)-(B)). Cultivators also must provide CDFW documentation.[30] (Bus. & Prof. Code § 26050.2(a)(1)(D)). The DCC may issue new Provisional licenses until June 30, 2022. (Bus. & Prof. Code § 26050.2(a)(1)). A Provisional license is a conditional license that

[28] Progress towards compliance with CEQA must be shown through one of the following ways: (1) The Lead Agency (either DCC or the local jurisdiction) is in the process of preparing a site-specific initial study, addendum, or checklist to demonstrate the project is consistent with previously circulated and adopted negative declaration, mitigated negative declaration, or environmental impact report (EIR); (2) If the Lead Agency is the local jurisdiction: the local jurisdiction has drafted, prepared, or circulated for public review an environmental review document; (3) If the Lead Agency is DCC: the applicant has submitted any information requested by DCC that demonstrates furtherance of environmental review; or (4) Other information that demonstrates substantial progress toward CEQA compliance during the previous 12-month license period.

[29] Evidence that compliance with local ordinances is underway requires the applicant to show that they have submitted a local land use application and are working through the local application process, but not necessarily that they are likely to receive final local approval.

[30] Applicants must submit either: (1) A final Streambed Alteration Agreement issued by the California Department of Fish and Wildlife (CDFW); (2) A draft Streambed Alteration Agreement provided by CDFW that has been signed and returned to CDFW; (3) Written verification from CDFW that a streambed alteration agreement is not needed; or (4) Written verification from CDFW that the applicant has submitted the notification required in Fish and Game Code § 1602, submitted the required fees, and is responsive to CDFW.

lasts for 12 months that the DCC can revoke if an applicant violates state regulations or fails to pursue an Annual license actively and diligently or upon the transition from a Provisional license to an Annual license (Bus. & Prof. Code §26050.2(b)). The State's denial of a Provisional license does not entitle an applicant to appeal the decision (Bus. & Prof. Code § 26050.2(m)).

The Provisional license program expires on January 1, 2026 (Cal. Bus. & Prof. Code § 26050.2(o)). Provisional licenses were designed to bridge between Temporary and Annual licenses and will begin to sunset between 2022 and 2026, with all Provisional licenses expiring on January 1, 2026 (Cal. Bus. & Prof. Code § 26050.2). After that, only Annual licensees can operate in the State. The sunset dates vary based on the size of the farm and whether it qualifies as an ***equity applicant***, as described below (Cal. Bus. & Prof. Code § 26050.2).

There was a limited window to submit a new Provisional license application (rather than renewing an existing one). Applicants for a Provisional license that would cause a licensee to hold multiple cultivation licenses equivalent to a Type 3 Medium license (one acre of outdoor; 22,000 sq. ft of mixed-light) must have applied by January 1, 2021 (Cal. Bus. & Prof. Code § 26050.2(a)(2)).

Applicants seeking licenses to cultivate less land than a Type 3 license allows must have applied by March 31, 2022 (unless they are applying for mixed-light with less than 22,000 sq. ft. of premises or outdoor with less than 20,000 sq. ft. of premises or qualify as an equity applicant[31] and the license will not result in an operation equivalent to a Type 5 "Large" license).

The DCC could not issue new Provisional licenses after June 30, 2022 (unless the license is for mixed-light less than 22,000 sq. ft. or outdoor cultivation less than 20,000 sq. ft. or is an equity applicant applying for less than a Type 5). All applicants seeking to cultivate less than 22,000 sq. ft. of mixed-light or 20,000 sq. ft. of outdoor must have applied by June 30, 2022 (social equity applicants are exempt and must apply by March 31, 2023) (DCC, n.d.b).

There is a limited window to renew a Provisional license.

Since January 1, 2023, the DCC has been prohibited from renewing a provisional license for a Type 5 "large equivalent", meaning a cultivator with "stacked" licenses over one-acre of outdoor. For all other cultivators, the DCC cannot renew Provisional licenses after January 1, 2025 (DCC, n.d.-b).

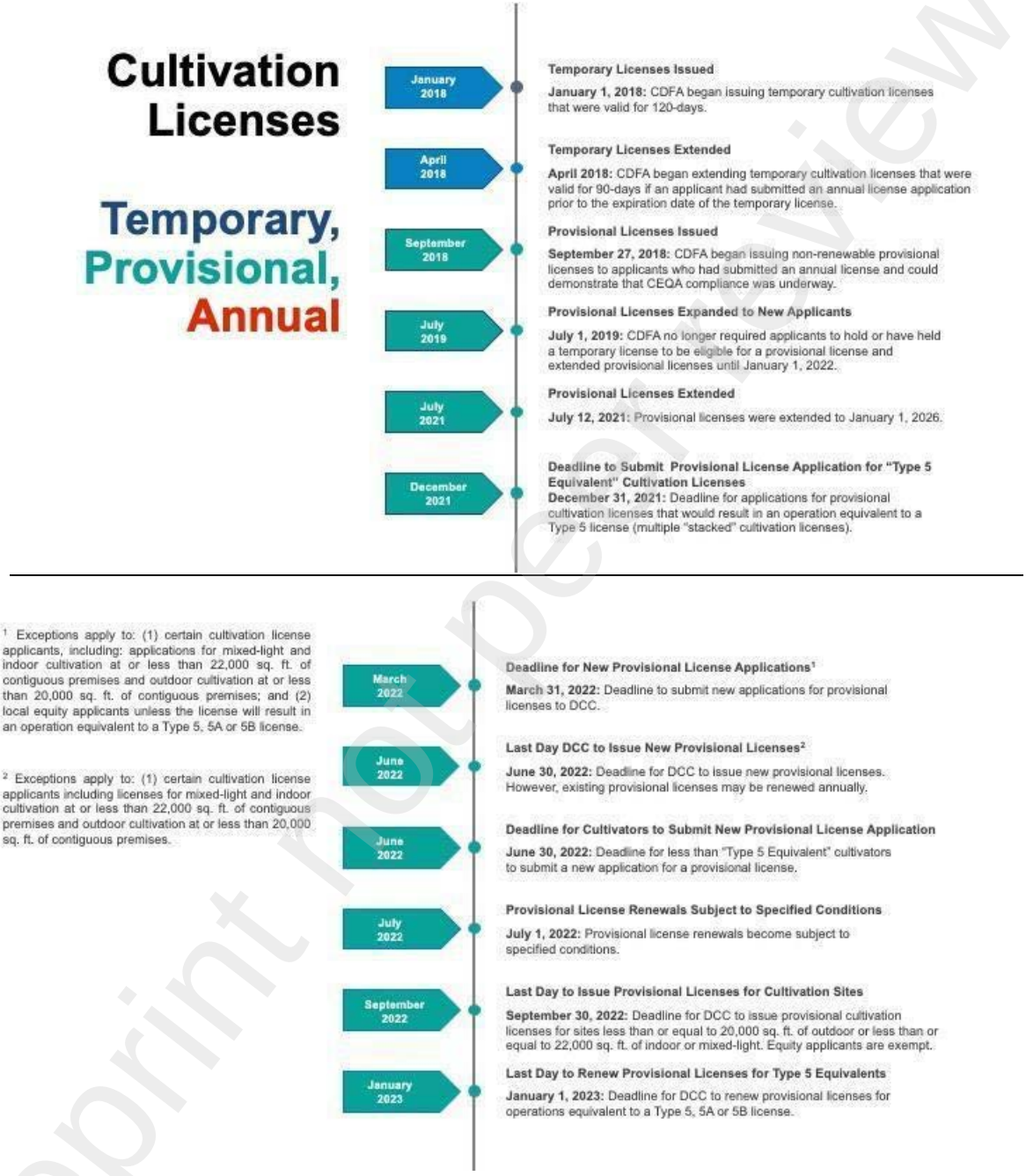
There is a limited window until all Provisional licenses expire. Stacked cultivation licenses that would result in an operation equivalent to that permitted by a Type 5 "Large" license will expire on January 1, 2024. All remaining Provisional licenses expire on January 1, 2026 (DCC, n.d.-b). After this date, all California cannabis licenses

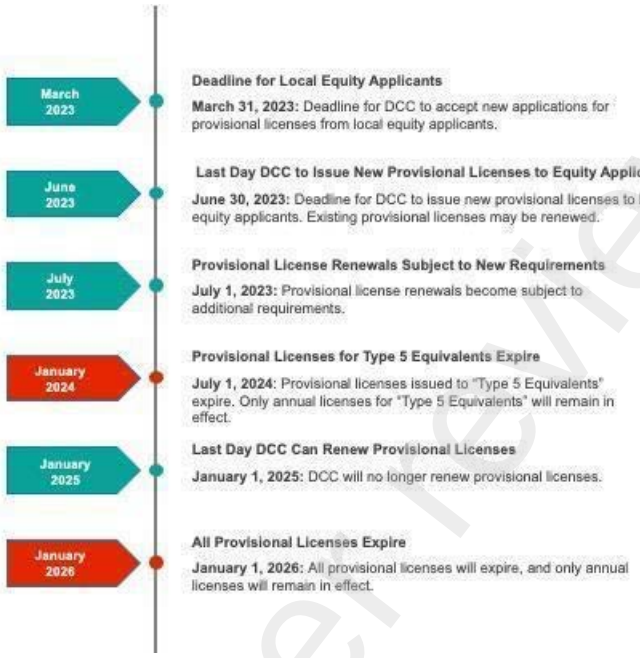
[31] See definition of "Equity Applicant" in glossary.

will operate under an Annual license. If an applicant cannot transition their Provisional license to an Annual license before then, they will have to stop operating after January 1, 2026, and wait for approval of their Annual license application to continue operating.

Figure 2 outlines the timeline for sunsetting provisional licenses (DCC, n.d.-b).

Figure 2: TEMPORARY, PROVISIONAL, AND ANNUAL STATE CULTIVATION LICENSES TIMELINE





It is an open question whether the revocation of a Provisional license can be appealed or challenged in court. The former California Attorney General Xavier Becerra has argued that the DCC may revoke a Provisional license without notice, a hearing, or appeal and do not confer any permanent entitlement (*Harrens Lab Inc., v. Bureau of Cannabis Control*, 2021). Robert Bonta assumed the office of the California Attorney General on April 23, 2021, and his office holds the same view. Per a court filing, the Attorney General's office states that Business and Professional Code § 26050.2, permits "provisional license revocation, suspension, and denial of renewal at the discretion of the CDFA at any time" and "federal law recognizes no right to engage in commercial cannabis activities, therefore there is no cognizable property interest sufficient to support a federal due process claim." (*Emerald Acres Corp. v. CDFA*, 2021).

A Provisional license holder challenged BCC's summary revocation of a Provisional license for alleged regulatory violations without prior notice, a hearing, or appeal (*Harrens Lab Inc., v. Bureau of Cannabis Control*, 2021). The petitioner, cannabis testing laboratory Harrens Lab Inc., argued that Provisional licenses are "constitutionally protected property rights entitled to procedural due process" and demanded an administrative hearing to appeal the license revocation (*Harrens Lab Inc., v. Bureau of Cannabis Control*, 2021).

The lawsuit was resolved after the parties executed a settlement agreement whereby the BCC agreed to rescind the Provisional License revocation and, instead,

suspend the license for a period of 28-days (*Harrens Lab Inc., v. Bureau of Cannabis Control*, 2021), Harrens Lab agreed to pay a fine and submit outstanding documents required for review of its Annual license application. As of June 21, 2022, Harren's Lab's Provisional license is active. As of September 2021, at least four cannabis companies have sued the State for revoking their Provisional licenses alleging they should have been allowed to appeal the revocations (Schroyer, 2022-a). Two cases have been resolved, and two are ongoing (Schroyer, 2022-a).

c. The Annual License is the Final License

A cultivator's primary licensing goal is to obtain an Annual license. Annual licenses are renewed every 12 months and do not confer a long-term or permanent entitlement or right. An Annual license is more reliable than a Provisional license because it demonstrates that a business has received full local approval and complied with CEQA (Wagner, 2021). Investors are willing to pay more for an Annual license as they provide certainty, involve less post-purchase costs associated with obtaining an Annual license, and entitle the license holder to appeal license denials or revocations under State law (Wagner, 2021).

A business is eligible for an Annual license after receiving local approval and providing the DCC with evidence of CEQA compliance. All cannabis businesses must obtain an Annual license to be eligible to operate after January 1, 2026. As of March 8, 2023, over half of the licenses were annual; the DCC has issued 11,250 provisional licenses and 6,425 annual licenses (Cal. State Senate, 2023).

Provisional license holders must complete the Annual license process by specific dates or face a potential gap in licensure (DCC, 2021-a). This creates a precarious situation where most of the legal market is in danger of their Provisional licenses expiring in 2024 or 2026, which would force thousands of businesses to cease operations. This could devastate cannabis businesses, their employees, and communities and reduce tax revenue for both local and state governments.

To avoid this outcome, the DCC awarded nearly $100 million in grant funding to local jurisdictions to transition more operators into Annual licenses before the deadlines (DCC, 2021-b). Seventeen local jurisdictions received grant funding, including study counties Humboldt, Lake, Mendocino, Monterey, Nevada, Sonoma, and Trinity (DCC, 2021-b). The study counties will utilize grant funding to expedite their local approval process, including issuing funds directly to permittees for application preparation, hiring additional staff, preparing CEQA documents, and providing technical assistance to applicants, as described in Table 2.

Many Provisional licenses represent small, ***equity,*** and ***legacy*** cannabis businesses (DCC, 2021-b). One of the stated goals of the AUMA was to transition

existing legacy operators into the regulated framework. Accordingly, State grantmaking focuses on supporting counties where most legacy operators exist but are still in Provisional license status and are at the most risk of dropping out of the regulatory framework when Provisional licenses expire in 2026. Counties were chosen by the State to receive grant funding if they had a significant number of Provisional licenses, were legacy and equity applicants, and were more likely to have arduous environmental compliance requirements associated with CEQA (DCC, 2021-b).

Table 2: LOCAL JURISDICTION ASSISTANCE GRANT PROGRAM FUNDING

COUNTY	FUNDS GIVEN DIRECTLY TO PERMITTEES/APPLICANTS			FUNDS USED BY COUNTY TO EXPEDITE APPLICATION PROCESSING		
	Funds Given Directly to Applicants to Increase Water Storage & Conservation	Funds Given Directly to Applicants to transition to Renewable Energy Sources	Funds Given Directly to Applicants to complete permit applications and CEQA document preparation	Funds Used by County to Hire Consultants/Staff to Process/Review Permit Applications (including CEQA analysis and documentation)	Funds Used by County to Conduct Programmatic-Level CEQA Analysis	Funds Used by County to Provide Technical Assistance to Applicants and/or Application Guidance materials to Applicants
HUMBOLDT	✓	✓				
LAKE				✓		
MENDOCINO			✓			
MONTEREY			✓	✓	✓	
NEVADA				✓		✓
SONOMA				✓		✓
TRINITY				✓		✓

7. California Environmental Quality Act ("CEQA") Compliance is a Fundamental Component of the State Regulatory System

a. CEQA Overview

The AUMA directed the Bureau of Cannabis Control (now the DCC) to devise protocols for each licensing authority to implement to ensure compliance with state laws and regulations related to environmental impacts, including, but not limited to, the California Environmental Quality Act ("CEQA") (AUMA, § 26056.5). CEQA requires state and local public agencies to consider and disclose the environmental impacts of their discretionary decisions. Modeled after the ***National Environmental Policy Act***

("NEPA"), CEQA aims to promote informed government decision-making while encouraging public participation in the decision-making process (Cal. Pub. Res. Code §§ 21000–06). Public agencies must comply with CEQA before approving a project that may affect the environment, defined broadly to include "land, air, water, minerals, flora, fauna, noise, or objects of historic or aesthetic significance" (Cal. Pub. Res. Code §§ 21000–06). The government agency overseeing a project is called the "lead agency" (*Id.* § 21067). Lead agencies possess the "principal responsibility for carrying out or approving a project" and ensuring the proper CEQA review is completed (*Id.*). In many cases, however, multiple agencies decide on a single project. Therefore, CEQA also provides for the designation of "responsible agencies," which can use the environmental review documents prepared by the lead agency to make their determinations (*Id.* § 21069; Cal. Code Regs. tit. 14, § 15050(b)).

Generally, agencies must complete one of the following CEQA reviews: a negative declaration (ND), a mitigated negative declaration (MND), or an environmental impact report (EIR). Agencies first conduct a preliminary analysis to determine whether a project has potentially significant environmental impacts (*Id.* § 15063). If the agency finds that the project is unlikely to affect the environment significantly, the agency prepares an ND (Pub. § 21064). Similarly, if the agency anticipates potentially significant impacts but identifies sufficient mitigation measures that the project proponent accepts, the agency prepares an MND (*Id.* § 21064.5). However, if the project will likely cause significant, unavoidable environmental impacts, agencies must produce an EIR (*Id.* § 21061). In the case of private projects, the burden of preparing an EIR—a lengthy and costly document—often falls on the applicant (Cal. Code Regs. tit. 14, § 15045). EIRs must include a detailed description of the project's environmental impacts (Pub. § 21100). They should also analyze alternatives to the proposed project and potential mitigation measures (*Id.*). If the agency decides to approve the project after completing an ND, MND, or EIR, it must prepare a brief statement called a notice of determination (NOD), describing the project and the agency's CEQA findings (Cal. Code Regs. tit. 14, §§ 15075, 15094). Finally, a project may qualify for a CEQA exemption. Agencies can file a notice of exemption (NOE) stating their basis for the exemption (*Id.* § 15062).

Agencies must complete environmental reviews for a wide range of projects. CEQA review applies to government projects and extends to private projects that need a public agency's discretionary approval (Cal. Pub. Res. Code § 21080). Further, environmental reviews vary in scope. Before an agency develops policies or regulations that could impact the environment, it must comply with CEQA. Often, agencies complete a program EIR (PEIR) that discusses environmental impacts (*Id.* § 15168). They can then engage in "tiering" by referencing their programmatic conclusions in their

site-specific CEQA analyses (*Id.* § 15152). For example, a locality may complete a PEIR before it passes a land-use ordinance. It can then tier from the initial review when making specific individual permitting decisions under that ordinance.

A threshold question to CEQA analysis is whether the agency has discretionary authority to address environmental impacts. Agencies must only comply with CEQA if they make a discretionary decision; CEQA does not apply to ministerial decisions (Pub. § 21080(a); Cal. Code Regs. tit. 14, § 15268). The rationale behind this rule is to prevent "meaningless" environmental reviews that cannot influence agency action (*Mountain Lion Found. v. Fish & Game Com.*, 1997). Therefore, the distinction between discretionary and ministerial decisions is key. Discretionary decisions require the decisionmaker to exercise "judgment" or partake in "deliberation" (Cal. Code Regs. tit. 14 § 15357). By comparison, ministerial decisions "involve little or no personal judgment" and require the decision maker to follow clear standards, deciding "whether there has been conformity with applicable statutes, ordinances, regulations, or other fixed standards" (*Id.* § 15369). When a decision includes discretionary and ministerial determinations, it remains a discretionary decision (Pub. § 15268(d)).

To distinguish between ministerial and discretionary decisions, courts first look to the statute or ordinance that gives the agency decision-making authority (*Protecting Our Water & Env't Resources v. Cty. of Stanislaus*, 2020; Cal. Code Regs. tit. 14 § 15002(i)(2)). When examining individual projects, courts employ a "functional test" and ask whether the agency can "deny or shape" a project based on its environmental impacts (*Id.* at 494). Courts apply a similar analysis for determining whether a law fashions discretionary or ministerial decision-making processes (*Id.* at 495).

b. State Annual Licensing Requires Compliance with CEQA

The DCC requires that all license applicants "provide evidence of compliance with, or exemption from, CEQA" by submitting site-specific documentation (Cal. Code Regs. tit. 4 § 15010(b)).[32] It is the DCC's position that DCC is subject to the requirements of CEQA because the DCC licenses commercial cannabis activities that have the potential to impact the environment, and the DCC may impose conditions on its licensees (Cal. Dept. of Consumer Affairs, 2021-b; DCC, 2021-d). The DCC asserts that its action taken to issue an Annual license is discretionary because Annual licenses can be conditioned and conditions can be imposed before a license is issued (Cal. Dept. of Consumer Affairs, 2021-a). Additionally, DCC's position is that through regulation, DCC can address environmental impacts and impose certain requirements on licensees that could mitigate or address environmental impacts (Cal. Dept. of Consumer Affairs, 2021-a). Accordingly, the DCC argues that "through their very

[32] In our analysis in the next three sections, we are indebted to the research assistance of Emma Lewis.

structure," issuing an Annual license is a discretionary process that triggers CEQA's definition of a project (Cal. Dept. of Consumer Affairs, 2021-a). The DCC asserts that it is required to define an Annual license as discretionary and cannot change this without changing the relevant law (Cal. Dept. of Consumer Affairs, 2021-a).

Based on this understanding of the interaction of CEQA with the cannabis regulatory system, DCC's position is that before the DCC can issue an Annual license, it must examine site-specific CEQA documentation provided by the applicant, ensure that the documentation complies with CEQA and decide whether to approve the project. Applicants may provide the DCC with evidence of CEQA compliance by submitting a signed copy of a project-specific Notice of Determination or Notice of Exemption and a copy of the associated CEQA document or reference to where it may be located electronically, as well as any accompanying permitting documentation from the local jurisdiction (Cal. Dept. of Consumer Affairs, 2021-b; DCC, 2021-d).

State-level CEQA review is often duplicative (Moose, 2021). Cannabis cultivators must receive local approval before applying for a state license. Some jurisdictions took advantage of a statutory exemption that allowed them to promulgate cannabis ordinances without completing a PEIR. However, as a condition of the exemption, the local jurisdictions had to create a discretionary cannabis permitting process (MAUCRSA § 41; Bus. § 26055(h)). Accordingly, many jurisdictions have already completed a discretionary, site-specific CEQA review for applicants applying for state licenses. Despite thorough environmental analysis, DCC still requires applicants to submit documentation of their site-specific CEQA review so that it can make a different decision. In these cases, the locality acts as the lead agency for purposes of CEQA, while DCC takes on the responsible agency role. It is unclear what DCC contributes during this second level of environmental review (Moose, 2021). Although DCC maintains that it can impose additional mitigating conditions on licensees, there is no public information about how often they exercise such power. (DCC, 2021-c, p. 54). Further, as a responsible agency, DCC may be able to challenge the adequacy of the local jurisdiction's environmental review; however, there is no public information about how often DCC uses this authority (Cal. Dept. of Consumer Affairs, 2021-b; DCC, 2021-d).

Other counties have taken a different approach. Hoping to streamline approvals for cultivators, Mendocino and Humboldt adopted a cannabis program establishing a ministerial permitting process. Mendocino completed an Initial Study, which recommended the adoption of a Mitigated Negative Declaration (Cnty. of Mendocino BOS, 2017). Mendocino believed that their individual ministerial permit decisions would be exempt from CEQA, discussed below. However, because DCC believes it must conduct site-specific CEQA analysis, applicants must still provide a comprehensive

environmental review when applying for an annual state license. To comply with this requirement, Mendocino incorporated an Appendix G CEQA Checklist into their ministerial permit approval process. Yolo County repealed and replaced its ministerial ordinance, discussed below to address the need for their permittees to obtain annual state licenses.

Although many localities have since amended their ordinances to provide site-specific reviews for their cultivators, this issue has contributed to permitting backlogs for under-resourced localities (Moose, 2021). Moreover, it has restricted otherwise legal ministerial permitting systems. Dual local-state CEQA review may have influenced how counties created or modified their cannabis permitting structure. No study county has used a ministerial process for more than a handful of projects, and counties have had to overhaul their regulatory and CEQA process because the state claims that more CEQA review is required.

c. Statutory Analysis of DCC's Assertion That Annual Licenses are Discretionary.

The DCC asserts that it is required to conduct site-specific CEQA review for every license it administers because it possesses discretionary authority. This section considers the legal basis for such discretionary authority by examining relevant statutes and regulations. The AUMA and the MAUCRSA do not clearly grant DCC discretionary authority over cannabis licenses, nor do they state explicitly that annual licenses are ministerial.

Importantly, it appears that DCC finds discretion in the "very structure" of the statutory licensing process because it can condition projects based on environmental impacts (California Department of Consumer Affairs, 2021). However, even if the AUMA gives the DCC authority to impose conditions, that does not necessarily mean the agency engages in discretionary decision-making for every license.

To analyze the potential regulatory basis, we analyze the AUMA, the MAUCRSA, CDFA's PEIR and DCC's current regulations. The PEIR may provide a basis for requiring site-specific CEQA analysis, but the DCC's regulations alone do not clearly confer discretionary authority to DCC. Ultimately, the statute and regulatory structure are vague, but one could interpret them to mean that, since the DCC has the potential to impose conditions on a license or deny a license because of a discretionary decision (that new licenses would negatively impact waterbodies), DCC has discretionary authority, necessitating site-specific CEQA review.

To frame the discussion, we begin with the legal standard cited in the California case "Protecting Our Water" where the court addressed the circumstances under which a public agency may characterize the issuance of well construction permits as

"ministerial" versus "discretionary" in which case CEQA applies. (*Protecting Our Water & Envtl. Res. v. Cnty. of Stanislaus).* We draw on this standard in our analysis that follows.

The standard holds that if a public agency (through an ordinance or statute) has discretionary authority in "at least some circumstances" in which it would be applied (*Protecting Our Water & Envtl. Res. v. Cnty. of Stanislaus*) then the program cannot be categorically classified as ministerial. A key factor in determining whether an agency decision is discretionary is whether the agency has discretion to "deny or shape" the project with respect to environmental impacts, for instance through the imposition of conditions for approvals (*Protecting Our Water & Envtl. Res. v. Cnty. of Stanislaus*).

In the Protecting Our Water matter, Stanislaus County asserted that a certain subset of its well construction permits were issued ministerially and were not subject to CEQA. The ordinance required a "safe" separation distance between proposed wells and potential sources of contamination. To determine a "safe" distance, the County would need to evaluate site conditions, and decide of what is considered a safe distance. *Protecting Our Water & Envtl. Res. v. Cnty. of Stanislaus*, No. F073634, 8-9 (Cal. Ct. App. Mar. 8, 2021). This ability to ascertain a "safe" distance made the issuance of well permits, in at least some circumstances, discretionary, and therefore the ordinance and issuance of well permits was not a blanket ministerial program. However, if the County determined that if "a well is not 'near' its closest contamination source and no other discretionary decision is involved - then the County may proceed with a ministerial permit issuance." *(Protecting Our Water & Envtl. Res. v. Cnty. of Stanislaus).*

In this section, we apply the above standard to our analysis of the AUMA and the MAUCRSA statutory language addressing CEQA and the environment and whether state licenses are "discretionary." We also look to CDFA's Programmatic Environmental Impact Report for insight into whether a site-specific review was contemplated when the state regulatory framework was created, and if the DCC's current regulations speak to the need for discretionary review.

1. **The AUMA initiative does not create a discretionary licensing process for cannabis cultivation.**

The AUMA directed the Bureau of Cannabis Control to "devise protocols . . . to ensure compliance with state laws and regulations related to environmental impacts, natural resource protection, water quality, water supply, hazardous materials, and pesticide use in accordance [with] . . . the *California Environmental Quality Act*," in addition to other environmental laws (Proposition 64 § 6.1; Bus. § 26056.5 (repealed 2017)). The AUMA allows agencies to deny an application or license renewal if the applicant violates "any rule or regulation…or any requirement imposed to protect natural

resources, including, but not limited to, protections for instream flow and water quality" (Proposition 64 § 26057(b)(1)). Additionally, AUMA states that CDFA (the State agency formerly responsible for regulating cultivation), "shall include" conditions requested by other natural resources agencies (CDFW and SWRCB) to protect water quality and fish habitat (Proposition 64 § 26060(c)).

The AUMA mentions "the environment" in several sections: In the findings and declarations, it states that the AUMA will "protect California and the environment from potential dangers" (AUMA, Section 2(A)) and create "strict environmental regulations" (AUMA, Section 2(F)) by regulating pesticides, preventing wasting water and minimizing water usage. If a business does not comply with applicable water usage and environmental laws (a condition of maintaining their license), they will have their license revoked (AUMA, Section 2(F)). One of the intentions of the AUMA was to bring illegal cultivation into a legal, regulatory structure that protects the environment (AUMA, Section 3(a)). However, these environmental protections must not create "unreasonably impracticable barriers to perpetuate, rather than reduce and eliminate, the illicit marijuana market" (AUMA, Section 26014(a)).

The AUMA did not create clear discretionary authority regarding CEQA for cannabis licensing agencies. Although it gave licensing authorities responsibility over the issuance of licenses, it did not tell agencies how to exercise that responsibility. Just as the CEQA Guidelines describe ministerial authority as ensuring "conformity with applicable statutes," the AUMA required agencies to consider whether the applicant complies with environmental laws (Cal. Code Regs. tit. 14, § 15369). Although CDFA can condition licenses based on environmental impacts, other agencies (CDFW and SWRCB) decide what conditions to impose. Furthermore, it is unclear whether and to what extent CDFA (now DCC) has exercised its authority to impose conditions requested by CDFW.[33] Although DCC may have discretionary authority, we are not aware of that authority ever having been used. Instead, the DCC ensures that an applicant has obtained a Lake and Streambed Alteration Agreement from CDFW (or another similar document), a Notice of Applicability, and any relevant water rights documentation from the SWRCB before issuing an annual license.

Finally, the AUMA seems to have left licensing details to the cannabis agencies. For example, it allowed agencies to deny licenses if the applicant did not meet their regulatory standards, whatever they may be. It is plausible to interpret the AUMA as

[33] A memorandum drafted by the Resources Legacy Fund explains that although AUMA provided CDFW with the authority to establish conditions to protect fish and wildlife, habitat, and water quality, that DCC is required to include in the state cannabis licenses (Business and Professions Code Section 26060.1, subdivision(b)), it appears this authority has never been exercised by either CDFW or the DCC, despite many comments by CDFW requesting that stronger environmental protections be incorporated in cannabis approvals (*See* Resources Legacy Fund Memo Re. Local Implementation of California Cannabis Program, dated April 18, 2023).

giving agencies a choice between discretionary or ministerial licensing when designing their regulations.

Applying the standard in *Protecting Our Water & Envtl. Res. v. Cnty. of Stanislaus*, it is unclear if this statutory framework requires discretionary review by DCC. Although DCC can apply conditions to licenses as requested by CDFW and SWRCB, those are conditions prepared by a different agency, not the DCC itself. As it's unclear from publicly accessible information if DCC has imposed conditions on a license, it is difficult to analyze what those conditions look like, if they are tailored to a project (which would be more discretionary) or are merely applying existing state standards to the license (which would be more ministerial).

One specific provision in the AUMA may grant DCC discretionary authority in at least some licensing decisions. CDFA, when implementing a cannabis cultivation identification program, had to prevent cultivation from "affect[ing] the instream flows needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability" or "negatively impact[ing] springs, riparian wetlands, and aquatic habitats" (Proposition 64 § 6.1; Bus. § 26067(c)(1) (currently amended version at Bus. § 26060)). If CDFA found that the watershed was sufficiently impaired, it had to stop issuing new plant identifiers for cultivation sites. These broad standards seem to give CDFA discretion because it would need to exercise judgment to determine whether cultivation would negatively impact a water body. However, this language specifically relates to a cannabis identification program, the tagging of legal plants with unique identifiers, not CDFA's overall licensing process.

This provision has been altered by both the MAUCRSA and later amendments. The MAUCRSA amended the provision such that CDFA could not grant new licenses or increase the total number of plant identifiers when other agencies determined that cultivation had harmed the watershed (MAUCRSA § 58; Bus. § 26069 (current amended version at Bus. § 26060)). This appears to have transferred any discretionary authority that CDFA possessed to other natural resource agencies. However, the MAUCRSA still required CDFA to consider water usage and other environmental impacts when implementing its *identification program* (MAUCRSA § 58; Bus. § 26069 (current amended version at Bus. § 26060)).

Later amendments also now require that the agency consider water use and other environmental impacts when *issuing cultivation licenses*. The current statute provides that "[i]n issuing cannabis cultivation licenses, the department shall consider issues, including, but not limited to, water use and environmental impacts. If the State Water Resources Control Board or the Department of Fish and Wildlife finds, based on substantial evidence, that cannabis cultivation is causing significant adverse impacts on the environment in a watershed or other geographic area, the department shall not

issue new licenses or increase the total number of plant identifiers within that watershed or area" (Bus. § 26060).

Although this amended provision requires licensing agencies to consider environmental impacts, there is still ambiguity as to whether DCC has discretionary authority under the statute under the standard in *Protecting Our Water & Envtl. Res. v. Cnty. of Stanislaus*. The provision creates a flat ban on new licenses, rather than conditioning licenses, which cuts against discretionary authority. On the other hand, the determination of significant adverse impacts that triggers a flat ban might be discretionary). In addition, there are circumstances in which a cultivator might have no impact on a watershed (such as is exclusively utilizing captured rainwater storage or a municipal water source and having no discharges to a waterway). In these circumstances, there may not be discretionary approval authority for the DCC, similar to the statement in *Protecting Our Water & Envtl. Res. v. Cnty. of Stanislaus* that wells that were not "near" to a contamination source would not necessarily be covered by discretionary authority.

2. **Although the MAUCRSA seems to assume that agencies will comply with CEQA when licensing cultivation sites, it does not explicitly grant discretionary authority.**

The MAUCRSA originally stated that CDFA "shall serve as the lead agency for purposes of the California Environmental Quality Act . . . related to the licensing of cannabis cultivation" (MAUCRSA § 47; Bus. § 26060(c) (repealed 2021)). This language may have implied that agencies make a discretionary decision, subject to CEQA review when they license a cannabis operator. Although neither CEQA nor its regulatory guidelines explicitly define "lead agency" as an entity with discretionary authority, the term typically refers to the entity overseeing a discretionary project (Pub. § 21067). Moreover, the regulatory guidelines define a "responsible agency" as an entity with "discretionary approval power" (Cal. Code Regs. tit. 14 § 15381). If responsible agencies have discretionary authority over a project, it follows that lead agencies also possess discretionary authority. Therefore, it is possible that when the Legislature enacted MAUCRSA it expected licensing to be a discretionary decision subject to CEQA when it designated CDFA as the lead agency.

Another provision in the MAUCRSA may also support this conclusion. The MAUCRSA states that licenses should also include relevant mitigation measures that the agency "identifies as part of its approval of the final environmental documentation for the cannabis cultivation licensing program as requirements that should be included in a license for cultivation" (MAUCRSA § 48; Bus. § 26060.1(b)(2)). The power to condition projects based on environmental impacts may suggest discretionary power. However, these mitigation measures come from CDFA's PEIR, and imposing these

programmatic mitigation measures may not require judgment on behalf of the licensing agency (CDFA, 2017b). CDFA's final PEIR is instructive on this point. On the one hand, most of the mitigation measures appear ministerial. For example, one measure requires licensed cultivators to consult with Native American tribes (CDFA, 2017-b, p. 4.13-8). To impose this measure, the agency must check whether the applicant consulted with local tribes. On the other hand, some mitigation measures appear more discretionary. One measure requires agencies to implement additional conditions if the cultivator later discovers cultural resources and the agency determines that continued cultivation would "significantly adversely affect" cultural resources (CDFA, 2017-b, p. 4.5-11). The agency must exercise judgment when deciding whether cultural resources were sufficiently affected and designing appropriate mitigation measures. This demonstrates that discretionary decisions may be nested within mitigation measures identified by a PEIR. Accordingly, it is unclear whether this mitigation provision gives agencies discretionary authority and requires site-specific environmental review for state licenses.

Despite these two provisions, the MAUCRSA, like the AUMA, never clearly states how agencies should make licensing decisions based on environmental impacts. For example, it simply provides that agency regulations must ensure licensed cultivators follow state and local law (MAUCRSA § 47; Bus. § 26060(b)(2)). While the MAUCRSA details what information applicants should submit (e.g., their water source), it does not explain how licensing agencies should use it (MAUCRSA § 48; Bus. § 26060.1). Nor does the MAUCRSA specifically require agencies to conduct site-specific analysis of environmental impacts. As DCC itself stated, "While MAUCRSA provides guidance on the larger macro issues, much of the implementation specifics and clarification of terms were left to the licensing authorities" (DCC, 2021-c, p. 4).

In summary, neither the MAUCRSA nor the AUMA clearly created ministerial or discretionary licensing processes. And while the MAUCRSA named CDFA the lead agency for CEQA purposes, a recent bill removed this provision (A.B. 141, 2020-2021 Reg. Leg. Sess., 2021). The AUMA and the MAUCRSA appear to leave most licensing issues for agencies to resolve in their regulations.

3. MAUCRSA Amendments Provide Support for DCC's Position that it Must Conduct Site-Specific Review.

Recent amendments to the MAUCRSA provide more support for DCC's conclusion that it must conduct a site-specific environmental review under CEQA before issuing a license. To receive a *provisional* license, applicants must demonstrate progress on a site-specific environmental analysis to satisfy CEQA (Bus. § 26050.2(a)(1)(A)). This implies that licensing agencies must evaluate applicants' site-specific environmental reviews before issuing an annual license.

DCC's position appears to be based on the general discretionary quality of licensing, not on a specific statutory provision (Cal. Dept. of Consumer Affairs, 2021-a).[34] However, there are counterarguments to this position. As discussed above, just because the statute requires licensing authorities to impose conditions or mitigation measures does not necessarily mean they make a discretionary decision. Here, the statute specifies that licensing agencies incorporate conditions developed by external agencies and mitigation measures identified in its PEIR. Moreover, just because an agency has discretionary authority to design its licensing regulations does not mean the licensing process must be discretionary. Although DCC believes there must be a statutory change to exempt state licensing from CEQA, there is a plausible argument that the statute is silent on the issue of discretionary licensing.

4. **CDFA's PEIR for its CalCannabis Cultivation Licensing program emphasizes the need for a site-specific review of environmental impacts before the state issues a license.**

We review and analyze CDFA's PIER for guidance on whether site-specific review by the state was anticipated when creating the state regulatory framework. When CDFA created the CalCannabis Cultivation Licensing program, it had to certify a ***Program Environmental Impact Report ("PEIR")*** (CDFA, 2017-b). The PEIR was designed to "comprehensively study the impacts of cannabis cultivation Statewide and incorporate environmental protection measures into cannabis cultivation licenses" (CDFA, 2017-b). The CDFA intended the PEIR to minimize the duplicate information required by agencies issuing individual permits or other approvals for cannabis cultivation, including other State agencies and local jurisdictions. The certified PEIR served as a program-level ***Environmental Impact Report ("EIR")*** per State CEQA guidelines § 15168 or as a first tier EIR prepared per State CEQA guidelines § 15152. In the PEIR, the CFDA analyzed resource areas[35] to determine the environmental impacts of Statewide cannabis cultivation licensing. After evaluating all environmental aspects, the CFDA determined that the CalCannabis Cultivation Licensing program, as proposed, was the most environmentally sustainable approach to regulating commercial cannabis cultivation. The CFDA determined that with the implementation of environmental protection measures included in the proposed regulations, the impacts of

[34] During a 2021 California Cannabis Advisory Committee meeting, counsel for the licensing agencies explained that the "statutory trigger" for CEQA analysis was the "very structure" of the licensing process itself (Cal. Dept. of Consumer Affairs, 2021-a). Counsel stated that "by virtue of MAUCRSA, and even AUMA, the action taken by licensing authorities in issuing a permit is discretionary because it can be conditioned; because there are qualifications that can be made beforehand; and because through regulation they could address any impacts and impose certain requirements on licensees that could mitigate or address those environmental impacts" (Cal. Dept. of Consumer Affairs, 2021-a).

[35] These resource areas included Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Energy Use and Greenhouse Gas Emissions, Hazards, Hazardous Materials, Human Health, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Transportation and Traffic, Tribal Cultural Resources, and Utilities and Service Systems.

the proposed CalCannabis Cultivation Licensing program were less than significant for all natural resource areas analyzed (CDFA, 2017-a).

After agency consolidation, the DCC promulgated one set of licensing regulations but never completed a new PEIR for those regulations, instead relying upon the previous PEIR prepared by CDFA. Therefore, we assume that the prior PEIR is the basis for DCC's current cultivation regulations. The earlier PEIR prepared by CDFA took an approach that assumed discretionary review, and we, therefore, assume that DCC follows the same discretionary review discussed in the PEIR. From the outset, the PEIR assumed that CDFA would have to conduct a review of a "site-specific" plan to limit the environmental impacts of cultivation:

> "Licensing would involve the thorough review and approval of a proposed site-specific plan for the cultivation of cannabis. Among many activities, CDFA's CalCannabis Cultivation Licensing program would be responsible for ensuring licensee compliance with the Proposed Program and relevant mitigation measure requirements determined by the environmental analysis in this PEIR; requiring compliance with applicable principles, guidelines, and requirements established by the State Water Resources Control Board and relevant Regional Water Quality Control Boards; requiring the application of pesticides in connection with cannabis cultivation is compliant with existing pesticide use laws and regulations established by the Department of Pesticide Regulation; requiring that individual and cumulative effects of water diversion and discharge do not affect instream flows needed for fish spawning, migration and rearing" (CDFA, 2017-b, p. ES-4 (emphasis added)).

The PEIR further explains that "site development activities related to cannabis cultivation (including activities that would alter land cover or increase impervious surfaces) are outside of CDFA's jurisdictional authority and would need to be addressed by local land use agencies as part of the discretionary land use permit approval processes." (CDFA, 2017-b, p. 2-60). It was contemplated that it "will be the responsibility of the agency with jurisdiction over issuing cultivation permits to ensure that the applicant has complied with CEQA, including necessary cultural resource assessments and other environmental assessments." However, in "cases where the city or county does not have a discretionary approval process for commercial cannabis cultivation, this responsibility would rest with CDFA as the sole licensing authority." (CDFA, 2017-b, p. 2-100)

Despite the MAUCRSA's assertion that CDFA would serve as the lead agency, CDFA assumed that it would generally act as a responsible agency and that local jurisdictions would prepare the necessary site-specific documentation ((CDFA, 2017-b, p. 4.0-7). The PEIR also recognized that "some topics fall outside of CDFA's regulatory

authority because they are regulated by local land use authorities at the project-specific level," such as "aesthetics, land use and planning, noise, odors, compliance with building standards, provisions for police and fire protection, and connections to public utilities (e.g., public water, wastewater, and storm drainage systems)" (CDFA, 2017-b, p. 4.0-6). Accordingly, CDFA claimed it could not "develop statewide requirements" for traditionally local impacts (CDFA, 2017-b, p. 4.0-6). Although the PEIR never directly asserts that the licensing process is discretionary, it consistently discusses CDFA's obligation to examine site-specific environmental impacts not discussed in the PEIR. Therefore, the PEIR implies that CDFA must comply with CEQA for each licensing decision.

5. DCC's regulations alone do not establish a discretionary licensing process.

Several provisions within the DCC's regulations speak to whether DCC has ministerial or discretionary authority (Cal. Code Regs. tit. 4, §§ 15000–17905). First, the regulations require that all applicants, including cultivators, "provide evidence of compliance with, or exemption from, CEQA" (Cal. Code Regs. tit. 4, § 15010(b)). Applicants must submit either: (1) a copy of a site-specific NOD or NOE prepared by the locality; or (2) a form containing detailed information on the project, including its environmental setting (Cal. Code Regs. tit. 4, § 15010(b)). This requirement assumes that DCC will need such site-specific information when issuing a license. Nevertheless, because the provision focuses on the applicant's obligations, it does not necessarily give DCC discretionary authority.

Second, the regulations provide clear environmental standards that all cultivators must follow to receive a license. The regulations require licensees to comply with "environmental protection measures," including (1) any "principles, guidelines, and requirements" adopted by other natural resource agencies according to section 13149 of the Water Code; (2) any conditions requested by other natural resources agencies to protect fish habitat pursuant to section 26060.1(b)(1) of the Business and Professions Code; (3) procedures in the Health and Safety Code if cultivators discover human remains; (4) specific requirements for generators (e.g., compliance with air pollution regulations and technology standards); (5) requirements for pesticides (e.g., compliance with all applicable laws and rules on storage); (6) requirements that outdoor lights be shielded and downward facing; and (7) requirements that lights used in indoor or mixed-light cultivation be shielded during the nighttime (Cal. Code Regs. tit. 4, § 16304). Ultimately, none of these environmental protection measures create apparent discretionary authority for DCC. DCC must confirm that the licensee follows specific environmental standards or other agencies' conditions to approve a license. Like the statute, the regulations do not create clear ministerial or discretionary decision-making processes.

6. **Despite conflicting statutory language, the DCC's PEIR and ability to apply conditions in certain circumstances appear to require the DCC to conduct discretionary review.**

The AUMA and MAUCRSA are vague on whether the issuance of a state license is discretionary or ministerial and contain conflicting language. However, CDFA's PEIR appear to require the DCC to conduct CEQA review. For DCC to not consider annual licenses discretionary, a statutory change likely would be required. One recent attempt to statutorily change the dual local-state CEQA review process is discussed in the next section.

8. Senate Bill 1148: A Case Study on the Challenges of Statutory Reform

Given the uncertainty over the relevant statutory language, the California Legislature may be best positioned to address the issue of dual CEQA review. Indeed, if the statute requires DCC to conduct discretionary review, any change must come from the Legislature. SB 1148 attempted to address this issue by exempting applicants from state-level CEQA review in certain circumstances (S.B. 1148, 2021-2022 Leg., Reg. Sess., (Cal. 2022). Senator John Laird authored the bill during the 2021-2022 legislative session (Laird, 2022). Although the Senate passed SB 1148, the Assembly Appropriations Committee quietly tabled the bill (California Legislative Information [LegInfo], 2022-b). The legislative history and the comments in opposition to the bill suggest that SB 1148 failed to pass due to concerns about environmental protection. Many environmental organizations believed that state-level CEQA review was necessary to check inadequate local review, particularly for commercial cannabis cultivation projects. The bill failed despite significant support from the cannabis industry, which wanted the state to streamline its licensing process.

The bill, as first amended on March 15, would have streamlined the state cannabis permitting process by "eliminating a redundant review after a local jurisdiction completes CEQA" (Laird, 2022).[36] It exempted state commercial cannabis licensing from CEQA if (1) the applicant complied with all local ordinances that regulate commercial cannabis; and (2) the local jurisdiction had filed a site-specific NOE or NOD following the adoption of an ND or certification of an EIR pursuant to CEQA (LegInfo, 2021). Senator Laird's initial description of SB 1148 stated that DCC would remain responsible for CEQA if the local jurisdiction had a ministerial approval process (Laird,

[36] The bill, as first amended, provided "26051.6. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the issuance by the department of a state license to engage in commercial cannabis activity if both of the following are met: (a) The applicant is in compliance with all ordinances that regulate commercial cannabis activity in the local jurisdiction. (b) The local jurisdiction, as the lead agency, has filed a notice of exemption or a notice of determination following the adoption of a negative declaration or certification of an environmental impact report pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code that is specific to the applicant's commercial cannabis activity or license" (California Legislative Information, 2022b).

2022). However, it is unclear that SB 1148 operated as Senator Laird intended. Local jurisdictions may also prepare an NOE when they make ministerial decisions (Cal. Code Regs. tit. 14 § 15374).[37] Therefore, SB 1148 may have exempted local ministerial decisions from state-level CEQA review.

By ending the "duplicative" site-specific CEQA review, Senator Laird sought to speed up state licensing (Laird, 2022). With approximately 70% of licenses still provisional, DCC needed to quickly transition thousands of provisional licenses into Annual licenses by the 2026 deadline (Laird, 2022; Cal. Bus. & Prof. Code § 26050.2(o)). Further, Senator Laird reasoned that duplicative review was an unnecessary use of both the applicant and state resources (Laird, 2022). The bill sought to encourage participation in the legal market by streamlining the state licensing process (Laird, 2022).

The bill produced significant support and opposition from various stakeholders during the legislative process, as summarized in Table 3 (LegInfo, 2022-c; LegInfo, 2022-b). Organizations in support of SB 1148 included cannabis industry associations and companies. The Monterey County Board of Supervisors supported the bill (LegInfo, 2022-c). Supporters argued that state-level CEQA review was generally redundant and that the bill would make the cannabis licensing process more efficient without sacrificing environmental protection (LegInfo, 2022-b). They stressed the need to speed up the licensing process and treat cannabis businesses like other companies (LegInfo, 2022-b). Finally, they argued that SB 1148 would restore authority to local jurisdictions, which traditionally exercise control over land use decisions (LegInfo, 2022-b).

By comparison, most organizations opposing the bill represented environmental interests, including the California Coastal Protection Network, the California Native Plant Society, California Trout, Defenders of Wildlife, the Nature Conservancy, and Trout Unlimited. These organizations pointed to the significant adverse environmental effects of cannabis cultivation as the reason for requiring rigorous environmental review. Opposers saw the dual review as a necessary state backstop to insufficient local CEQA analysis (LegInfo, 2022-a). In particular, they worried that local jurisdictions would apply for CEQA exemptions incorrectly or prepare inadequate CEQA analyses that failed to mitigate adverse impacts (LegInfo, 2022-a). Finally, they saw the state-level environmental review as consistent with the voter intent of the AUMA (LegInfo, 2022-a).

[37] "Notice of exemption" means a brief notice which may be filed by a public agency after it has decided to carry out or approve a project and has determined that the project is exempt from CEQA as being ministerial, categorically exempt, an emergency, or subject to another exemption from CEQA." (Cal. Code Regs. tit. 14 § 15374) (emphasis added).

TABLE 3: ORGANIZATIONS IN SUPPORT OR OPPOSITION OF SB 1148[38]	
ORGANIZATIONS IN SUPPORT	**ORGANIZATIONS IN OPPOSITION**
• Big Sur Farmers Association • Body and Mind • California Cannabis Industry Association • Cannabis Distribution Association • Etheridge Farms • Good Farmers, Great Neighbors • Humboldt County Growers Alliance • Kiva Confections • Mendocino Cannabis Alliance • Monterey County Board of Supervisors • Nevada County Cannabis Alliance • Origins Council • Parent Company • Sonoma County Growers Alliance • Trinity County Agriculture Alliance	• California Association of Professional Scientists • California Coastal Protection Network • California Native Plant Society • California Trout • Defenders of Wildlife • The Nature Conservancy • Trout Unlimited

The Senate Committee on Business, Professions and Economic Development reviewed the bill on April 4 (LegInfo, 2022-b). The Committee's bill analysis documented support from the Parent Company, a vertically integrated cannabis company (LegInfo, 2022-a). There did not appear to be any opposition to the bill at this time. The Committee subsequently passed SB 1148 with a vote of 13-0 (LegInfo, 2022-b). Following approval from the Committee on Business, Professions, and Economic Development, Senator Laird amended the bill to remove the requirement that the applicant be compliant with all local ordinances that regulate commercial cannabis activity to qualify for the CEQA exemption (LegInfo, 2022-b). This language may have been unnecessary. Cannabis operators must demonstrate compliance with local ordinances and regulations before receiving a state license (Bus. § 26055(d)).

SB 1148 then went before the Senate Committee on Environmental Quality, which held a hearing on April 27 (LegInfo, 2022-b). The Committee's bill analysis raised several concerns. First, it noted that SB 1148 extended to projects with NOEs (LegInfo, 2022-a). Jurisdictions differ in how "liberally" they find CEQA exemptions (LegInfo, 2022-a, p. 6). Without the state serving as a check, localities might inaccurately apply

[38] Organizations that supported or opposed SB 1148 during the legislative process, either by submitting comments or participating in committee hearings.

CEQA exemptions for their cannabis projects. The analysis asked whether "it [would] be appropriate for a cannabis activity to be exempt from state-level review because the local jurisdiction performed a brief, precursory review and declared it to be exempt" (LegInfo, 2022-a, p. 6). It further suggested that the Committee consider amending the bill to make applicants with NOEs ineligible. Second, the analysis described the importance of state review in "vetting" local decisions (LegInfo, 2022-a, p. 6). It summarized stakeholder concerns that local jurisdictions would perform "deficient" CEQA analyses for cannabis cultivation projects, which can have significant environmental impacts (LegInfo, 2022-a, p. 7). Without dual CEQA review, the burden of ensuring CEQA compliance would fall on individual litigants rather than state licensing agencies. The analysis suggested that DCC may serve as a crucial "backstop" to inadequate local environmental review (LegInfo, 2022-a, p. 7). Finally, the analysis noted that the bill would require DCC to check whether localities had filed a NOD individually. It suggested that DCC could process applications more efficiently with a centralized database for NODs (LegInfo, 2022-a, p. 7).

Unlike the hearing before the Committee on Business, Professions, and Economic Development, this committee hearing attracted numerous stakeholders in support and opposition to the bill (LegInfo, 2022-c, p. 9–10). Ultimately, the Committee for Environmental Review passed SB 1148 with a vote of 7-0 (LegInfo, 2022-b). Following the approval, Senator Laird amended the bill to address the Committee's concerns about filing efficiency. As amended, the bill required local jurisdictions to file their NODs with the State's Office of Planning and Research (LegInfo, 2022-b). While on the Senate Floor, Senator Laird amended the bill again, adding language that "the activity or activities associated with the commercial cannabis license that the applicant is applying to exempt from CEQA shall conform with the scope of the commercial cannabis activity or activities analyzed and reviewed under CEQA by the local jurisdiction, as determined by the department" (LegInfo, 2022-b). This language simply requires that the scope of the state-level CEQA exemption match that of the local review. On May 26, the California Senate passed SB 1148 with a vote of 38-0 (LegInfo, 2022-b).

Once the State Assembly was reached, SB 1148 was referred to the Assembly Committee on Business and Professions and the Assembly Committee on Natural Resources. The Committee on Business and Professions first reviewed SB 1148, holding a hearing on June 14, 2022 (LegInfo, 2022-b). Numerous stakeholders spoke in support of the bill (e.g., Origins Council, cannabis industry associations, Monterey County Board of Supervisors) and in opposition of the bill (e.g., the Nature Conservancy, Trout Unlimited, Defenders of Wildlife) (LegInfo, 2022-c). The environmental organizations in opposition to the bill stated that they were in

conversation with Senator Laird about amending the bill and "hoping to work through [their] concerns" (LegInfo, 2022-c). The Committee ultimately passed the bill with a vote of 16-0 (LegInfo, 2022-b).

On June 27, the Assembly Committee on Natural Resources held its hearing on SB 1148 (LegInfo, 2022-b). The Committee's bill analysis expressed some concerns about SB 1148. Because local jurisdictions employ different methods to comply with CEQA, giving them the final say would produce inconsistent results (LegInfo, 2022-c, p. 4). Further, "[u]nconditionally relying" on NOEs may bypass rigorous environmental review, and the analysis recommended making NOEs ineligible for state-level CEQA exemptions (LegInfo, 2022-c, p. 5). Additionally, the bill analysis suggested amendments to ensure that the state-level CEQA exemption would only apply to the "same project" examined by the local jurisdiction (LegInfo, 2022-c, p. 5). It also recommended adding the provision that "[t]he local lead agency's determination is final and is not subject to judicial review" (LegInfo, 2022-c, p. 5). Finally, the bill analysis recommended that the bill be amended to also exempt projects from state-level CEQA review where "[t]he local lead agency, has approved the same project being reviewed by the Department following a determination that the activity will be in compliance with a local ordinance governing commercial cannabis cultivation activities, for which an EIR has been certified" (LegInfo, 2022-c, p. 5). This provision would exempt local ministerial decisions made according to cannabis ordinances where the local jurisdiction prepared a PEIR. It represents a departure from Senator Laird's original description of the bill, which stated "DCC [would] continue to conduct a CEQA review where local project approval is ministerial" (Laird, 2022). However, the bill's first version also exempted NOEs from state-level CEQA review, and NOEs may be prepared for ministerial decisions (LegInfo, 2022-b).

At the hearing, Senator Laird expressed his intent to accept the Committee's amendments, as laid out in the bill analysis (LegInfo, 2022-b). As in previous committee hearings, numerous stakeholders supported and opposed the bill. The Committee passed SB 1148 with a vote of 6-1 (LegInfo, 2022-b). This was the first time someone had voted against the bill. Following the Committee's approval, Senator Laird revised the bill for a fifth time (LegInfo, 2022-b).[39]

[39] The final version of SB 1148 would have added the following language: "(a) The California Environmental Quality Act (CEQA) (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the issuance, pursuant to this chapter, by the department of a state license for a project to engage in commercial cannabis activity if the appropriate local jurisdiction, as the lead agency, has done either of the following: (1) Approved the project, either adopted a negative declaration or mitigated negative declaration for the project or certified an environmental impact report for the project, and filed with the Office of Planning and Research a notice of determination. (2) Approved the project following a determination that the project complies with a local ordinance governing commercial cannabis activity for which an environmental impact report has been certified and the project does not result in an impact that was not analyzed in that environmental impact report. (b) In order to qualify for the exemption in subdivision (a), the local jurisdiction's determination on the project or local ordinance, as applicable and as required under Section 21080.1 of the Public Resources Code shall be final and the local jurisdiction's determination shall not be the subject of pending judicial review. The department shall determine whether the project satisfies this subdivision" (LegInfo, 2022-b).

The final version of SB 1148 exempted state cannabis licensure from CEQA review if the local jurisdiction had either (1) adopted an ND, MND, or EIR for the project and filed a NOD with the Office of Planning and Research; or (2) determined that the project complied with a local cannabis ordinance for which an EIR had been prepared (LegInfo, 2022-b). Further, the amended bill stated that the local jurisdiction's determination "shall be final and the local jurisdiction's determination shall not be the subject of pending judicial review" (LegInfo, 2022-b).

SB 1148 never left the Assembly Appropriations Committee (LegInfo, 2022-b). The Committee postponed its hearing twice without acting further before the legislative session's conclusion (LegInfo, 2022-b). Known as the "suspense file," the Appropriation Committee lets hundreds of bills quietly disappear yearly without public debate or voting (Rosenhall, 2020). Ultimately, despite the significant amendments, the Committee decided to keep SB 1148 from moving forward. It appears that the bill may have failed because of its last amendment.

During the 2023-2024 legislative session, Senator Laird introduced a bill similar to SB 1148 (SB 508), but it faces the same challenges of being passed as there remains stakeholder conflict. The cannabis industry remains in support, with the cities and counties adding their support,[40] and the environmental community remains in opposition, with the Resources Legacy Fund[41] joining in opposition.

[40] The Rural County Representatives of California (RCRC), the California State Association of Counties (CSAC), and the League of California Cities (Cal Cities) write in support: "The Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA) establishes a dual regulatory structure for cannabis businesses: A person who wishes to engage in commercial cannabis activity is subject to regulation at both the state and local levels. In practice, local jurisdictions are often required to perform site-specific CEQA review for all license types, even for cannabis businesses like retail that are located in fully developed areas and posing no meaningful risk of environmental impact. [This bill] would provide that the Department of Cannabis Control is not required to serve as a responsible agency under CEQA if the local jurisdiction acting as lead agency has filed a notice of determination for the commercial cannabis activity following the adoption of a mitigated negative declaration, environmental impact report or a notice of exemption for a retail commercial cannabis project. As the legal cannabis market struggles, we must ensure those coming into the legal market have a pathway to transition from provisional licenses to annual licenses with ease. Reducing duplicative efforts is an important tool for issuing licenses efficiently and effectively." (*Assembly Business and Professions Committee, Tuesday, June 20, 2023*. (2023, June 20). [Video]. California State Assembly. Retrieved June 26, 2023, from https://www.assembly.ca.gov/media/assembly-business-and-professions-committee-20230620).

[41] The Resources Legacy Fund ("RLF") writes in opposition: "Environmental protection is one of voter-approved Proposition 64's primary goals. And implementation of the California Environmental Quality Act (CEQA) is central to advancing that goal when the Department of Cannabis Control (DCC) reviews applications for commercial state annual licenses for cultivation, sale, distribution, and testing of cannabis. Contrary to Proposition 64's intent, SB 508 removes the CEQA requirement that DCC act to protect the environment when it reviews license applications if a city or county has approved an environmental impact report or mitigated negative declaration. CEQA helps save tax dollars by helping prevent or reduce environmental damage before it occurs or by requiring licensees to pay for remediation as part of their state license requirements. Unfortunately, local review of prospective cannabis licenses is very inconsistent across the state as local agencies often fail to adequately evaluate and disclose to the public the environmental and public health risks presented by cannabis operations or take action to avoid or reduce those impacts as required under CEQA. In these instances, DCC review and action is critically important to prevent costly environmental damage from occurring that can impose expensive remediation costs to state and local agencies. During the negotiations on the 2021 cannabis budget trailer bill, RLF and other environmental groups accepted an extension of the CEQA-exempt cannabis "provisional licenses" to January 1, 2026, in part, in return for a statutory provision that there would not be any additional CEQA exemptions related to cannabis [Subdivision (q) of Business and Professions Code Section 26050.2 specifically provides that "…no further exemptions from annual licenses be adopted…]. [This bill] is inconsistent with both the letter and the spirit of this compromise." *Assembly Business and Professions Committee, Tuesday, June 20, 2023*. (2023, June 20). [Video]. California State Assembly. Retrieved June 26, 2023, from https://www.assembly.ca.gov/media/assembly-business-and-professions-committee-20230620.

B. Local Regulation of Commercial Cannabis Activity[42]

The MAUCRSA includes multiple local-control provisions that preserve local government police powers to ban commercial cannabis activity or regulate cannabis businesses through local zoning and land use requirements, business license requirements or other local licenses, permits, or other authorization requirements (Cal. Bus. Prof. Code § 26200 (a)(1)-(2)). Local governments may establish cultivation ordinances that impose more stringent rules for cannabis businesses than the State provides (AB 266, 2015-2016 Leg., Reg. Sess., (Cal. 2015)). However, state law reserves some authority over cannabis development by prohibiting a cannabis business from being located within a 600-feet radius of a school providing instruction in kindergarten or any grades 1 through 12, a daycare center, or a youth center that is in existence at the time of licensure, unless a local government specifies a smaller radius (Cal. Bus. & Prof. Code § 26054(b)). State law also reserves the right for the State cannabis agency to limit the number of licenses issued in an ***impacted watershed*** if the SWRCB and CDFW notify the DCC that cannabis cultivation is causing significant adverse impacts on the environment in a watershed or other geographic area (Cal. Code Regs. tit. 4 §15011(a)(11)). Although a local government could authorize a cannabis business to operate within its borders if the site were within an impacted watershed, the business would be unable to obtain a State license and legally operate under State law.

1. Counties May Amend Their Planning and Zoning Code to Regulate Commercial Cannabis Activity

Counties that use land use law to regulate cannabis operate within a hierarchical system of local government law. At the top of that hierarchy is the General Plan (*Neighborhood Action Grp. v. Cty. of Calaveras*, 1984, p. 406–07)—likened to a "constitution" for the long-term physical development of the county (*DeVita v. Cty. of Napa*, 1995). Each jurisdiction must have a General Plan, and the General Plan must include comprehensive language that describes the county's long-range vision, policies, and objectives for development. California law does not require that jurisdictions update their General Plan according to a set schedule; the law only suggests "periodic" updates.[43]

The next level within the hierarchy is zoning ordinances. Zoning ordinances (defined generally) include maps and text that, when combined, provide specificity as to the type of development (such as outdoor, mixed-light, or indoor cultivation) and size

[42] Much of this content draws on O'Neill et al, 2021.

[43] The General Plan has seven elements: land use, open space, noise, circulation, housing, conservation, and safety. *See* Cal. Gov't. Code § 65302. The Housing Element details how the jurisdiction will satisfy its allocation of the regional housing need and is the only element that must be updated according to a planning schedule.

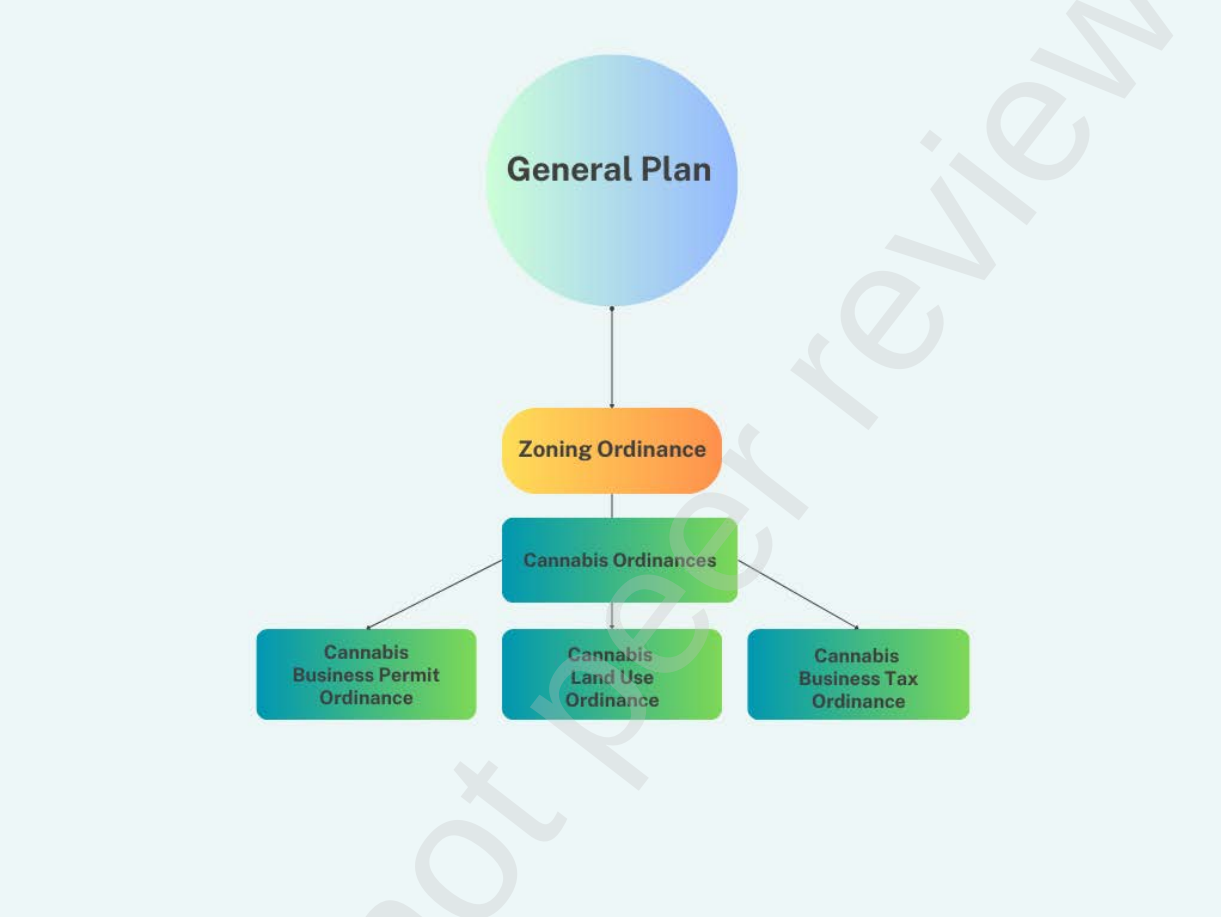
(such as acreage or square footage) permissible within specific areas. Zoning ordinances may include setback requirements and planning approval procedures. The next level of local regulation is cannabis land use ordinances which govern the particular rules applicable to cannabis operators. These rules may include which permits or licenses a cannabis business must obtain, regulations related to water usage, electricity source, odor restrictions, road requirements, sensitive species protection, weights and measures, and operating standards, among other topics.

CEQA environmental review applies to all local legislative actions–thus when a county enacts a local cannabis ordinance to regulate how the county issues a permit or licenses, the local cannabis ordinance itself is considered a "project" under CEQA and requires environmental review (*Union of Medical Marijuana Patients, Inc. v. City of San Diego*, 2019). When enacting cannabis ordinances, local governments conduct a CEQA review of local regulatory cannabis programs or rely on a statutory exemption contained in the MAUCRSA that excuses from CEQA review ordinances that require discretionary review of individual licenses (Cal. Bus. & Prof. Code § 26055(h)).

A final layer of local government regulation is cannabis business tax ordinances levied on cannabis operators for conducting commercial cannabis activity within the jurisdiction. All study sites require cultivators to pay cannabis business taxes to the County Treasurer-Tax Collector. Some counties require operators to obtain a cannabis business license or tax certificate. Local governments base cannabis taxes on gross receipts,[44] square footage of the cultivated area,[45,] or the number of pounds sold.[46] Payment of the annual cannabis tax is often a condition of approval of a land use entitlement or cannabis business permit, and failure to pay the tax may result in permit revocation[47] or denial of a permit renewal application.[48] Figure 3 below describes local government land-use mechanisms and tools.

[44] Nevada County has a gross receipts tax; *See* Nevada Cty. General Code, § G-V 8.4.
[45] Humboldt requires an annual tax based on the square footage of the cultivation area; *See* Humboldt Cty. Code, Chapter 9, § 719-4.
[46] Trinity has a tax based on a flat rate per pound of cannabis harvested and transferred from a cultivator to a distributor; *See* Ballotpedia: Trinity Cty., Cal., Measure G, Marijuana Tax (November 2020).
[47] An applicant's failure to pay annual cannabis taxes in Nevada County may result in the revocation of the applicant's permit under Nevada County Ordinance No. 2456, Section G-V 8.11(D).
[48] An applicant's failure to pay annual cannabis taxes in Monterey County may result in the denial of a permit, or denial of a permit renewal application under Monterey County Code Chapter 7.90.070(F)(3).

Figure 3: LOCAL GOVERNMENT LAND USE MECHANISMS AND TOOLS



2. Counties May Adopt Land Use Approval Pathways with Differing Requirements

In understanding the land use entitlement process, a key distinction is between discretionary and ministerial review. Discretionary review refers to a local government's authority to impose subjective standards when deciding whether to approve proposed development. Ministerial review employs an objective standard that requires a local government to approve a proposed development so long as it conforms to the objective standard. Discretionary review grants the local government the power to reject proposed development for subjective reasons, and ministerial review does not. Ministerial review is often referred to as "by-right" or "as-of-right" development and involves approvals in which a government agency applies the law to facts without using subjective judgment.

We group land use approval processes into three general categories. First, counties can allow for a ministerial or "by-right" process when the proposed development conforms to the terms of its ordinance and meets zoning requirements. Although this pathway is available, it is complicated by the state licensure and CEQA requirements mentioned above.

Second, counties can impose requirements for subjective, discretionary review for projects that require additional review and tailored requirements based on feedback from the county. Examples include conditional use permits and special permits.[49]

Third, counties also impose discretionary review when the proposed project would not comply with the zoning or setback requirements in the applicable zoning ordinance. This includes when the project proponent is seeking an exemption from the zoning ordinance or setback restrictions (described as a "variance").[50]

If a local government approves applications for a cannabis cultivation license or permit through a discretionary process, that approval is a "project" and CEQA applies to the approval itself (Cal. Pub. Res. Code § 21165; 14 CCR § 15367; Cal. Gov't Code §§ 65100, 65101). Local governments conduct CEQA reviews of individual projects to approve a discretionary permit.

Local cannabis ordinances that create a discretionary review and approval process for cannabis permits, licenses, or other authorizations qualify for a statutory exemption from CEQA under the MAUCRSA (Cal. Bus. & Prof. Code § 26055(h)). The MAUCRSA created the statutory exemption on June 27, 2017, and it applied to ordinances passed before July 1, 2019 (Cal. Bus. & Prof. Code § 26055(h)). AB 97 extended the repeal date until July 1, 2021 (AB 97, 2018-2019 Leg., Reg. Sess., (Cal. 2019)). The CEQA approaches of each study county are discussed in more detail below in Table 6.

C. The Interaction of State and Local Regulation of Commercial Cannabis

California counties typically have latitude in what type of processes they use to approve cannabis development, including whether they use discretionary or ministerial reviews. However, as noted above, the State Annual license program is discretionary and requires the DCC to conduct a CEQA review. Thus, regardless of whether a local government uses a ministerial or discretionary process, applicants must still conduct site-specific CEQA reviews to receive an Annual state license. This fact has shaped local governments' decisions on how to structure their regulatory system. Local

[49] *See* e.g., Humboldt Cty. Code, Cal., § 314-55.4.6.2.2.2 (describing open-air cultivation in excess of 1 acre requiring a Conditional Use Permit); Trinity County Code, Title 17, Chapter 17.43.040(B)(1)(b) (describing Type 3 licenses requiring a Conditional Use Permit); Humboldt Cty. Code, Cal., § 314-55.4.6.5.4 (describing a cultivation site located on slopes greater than fifteen percent (15%) but not exceeding thirty percent (30%) may be permitted with a special permit).

[50] *See* e.g., Trinity County Code Section §17.43.050(A)(8) which requires cannabis cultivation to be located at least 350 ft from a legal residential structure on any adjoining parcel, or the cultivator must obtain a commercial cannabis variance.

governments adopting a ministerial program may create greater burdens for applicants who must navigate the CEQA review process at the State level.

Specifically, to obtain an Annual license, applicants must demonstrate CEQA compliance that is site-specific. Before the DCC can grant an Annual license for a project permitted by a local government, the DCC must make an independent evaluation of the document prepared by the local government for the project (Memorandum: CEQA Practice Recommendations from CDFA for Cannabis Licensing, 2019) or documentation provided by the applicant as evidence of exemption from CEQA (Cal. Code Regs. tit. 3 § 8102). If the local jurisdiction issues a ministerial permit or a Categorical Exemption for an individual site-specific project (both of which do not include CEQA review) the State will apply CEQA review to the project, forcing the applicant to navigate the CEQA process directly with the State. This means that if the applicant did not complete CEQA review at the local level, they will have to provide the State with documentation, including a Project Description and CEQA analysis of the site, to prove to the state that the Categorical Exemption or ministerial approval was appropriate.

Ministerial Approval

Counties that initially adopted a ministerial review process, including Humboldt and Mendocino, later added a site-specific CEQA review component to provide their permittees with a document that would meet the State's CEQA review requirements for Annual licensure. Humboldt's Commercial Medical Marijuana Land Use Ordinance ("CMMLUO") allowed cultivators to obtain a ministerial zoning clearance certificate ("ZCC"). However, after ZCCs were issued with a ministerial CEQA exemption, Humboldt subsequently issued these applicants an Addendum to the Program MND, indicating that the project complied with the MND prepared for the CMMLUO.[51] Mendocino's Cannabis Program describes its permitting process as ministerial; however, applicants must complete an Appendix G CEQA checklist demonstrating that their site complies with the County's Mitigated Negative Declaration prepared for its cannabis ordinance. An in-depth discussion of county approaches to ministerial and discretionary approvals is contained in below.

Categorical Exemption

In the case of a Categorical Exemption issued for an individual project at the local level, the DCC will evaluate if an exemption is appropriate for a particular project and therefore supports the issuance of a State Annual license (DCC, 2018-b).[52] An issue that can arise when a local government has issued a Categorical Exemption is

[51] Specifically, the County issued a Notice of Determination that a project was compliant with the county's Mitigated Negative Declaration for its ordinance by attaching an Addendum to the permit.

[52] Additional guidelines regarding how categorical exemptions operate can be found in the California Association of Environmental Professionals, 2022 CEQA Statute and Guidelines, available at the following link: https://www.califaep.org/statute_and_guidelines.php.

that the local approving agency, such as the Planning Department, sometimes has not included documentation with the local approval that includes a project description or enough information to allow the State to conduct its second layer of CEQA review.

To conduct this review, the DCC must have sufficient information and documentation regarding the project. The DCC needs supporting information sufficient to determine not only whether the project is eligible for an exemption, but also whether any relevant exceptions to the exemptions specified in the State CEQA guidelines may apply, thus disqualifying the project from an otherwise applicable exemption (Cal. Code Regs. tit. 14 § 15300 et seq.). Common exceptions applicable to cannabis cultivation include if a project has a "cumulative impact" on the environment or may result in damage to scenic resources (Cal. Code Regs. tit. 14 § 15300.2(b)). To conduct this evaluation, the DCC must have a complete description of the proposed project that provides information about the project site, including existing conditions and facilities, proposed facilities, and improvements (both on and off-site), and the construction methods and operations practices of the proposed project (CDFA, 2019-b).

Figure 4 shows the local and State layers of environmental review required for a cannabis cultivation project.

Figure 4: CASCADE OF CEQA REVIEW APPLICABLE TO CANNABIS CULTIVATION PROJECTS

Local Discretionary Review	**Local Ministerial Review**
[**State**] CEQA Review of State Commercial Cannabis Cultivation Regulatory Program (CalCannabis PEIR) ⇩ [**LOCAL**] CEQA Review of Local Government's Cannabis Ordinance(s) OR no CEQA Review Based on Statutory CEQA Exemption ⇩ [**LOCAL**] CEQA Review of Discretionary Approvals of Permits, Licenses or Other Authorization ⇩ [**State**] CEQA Review of Discretionary State License (Local Government Acts as Lead Agency)	[**State**] CEQA Review of State Commercial Cannabis Cultivation Regulatory Program (CalCannabis PEIR) ⇩ [**LOCAL**] CEQA Review of Local Governments Cannabis Ordinance(s) ⇩ [**LOCAL**] No CEQA Review of Ministerial Permits, Licenses or Other Authorization ⇩ [**State**] CEQA Review of Discretionary State License (DCC Acts as Lead Agency)

III. Historical Framework and Continuing Challenges: What Prior Research Reveals About How Cannabis Legalization Impacts Participation in the Regulated Cannabis Market

Having covered some of the relevant areas of California law that we engage with in our analysis, we now describe relevant empirical work from a wide range of disciplines that informed our research and methods. We review literature from quantitative social science research, qualitative policy research, legal studies, environmental studies, economics, and criminal justice research about cannabis regulation. We synthesize the existing research on the impact of California's regulatory framework–which has changed since California voters legalized cannabis–and how this evolving regulatory framework shapes current cannabis regulations at the local level. We also explore what current research reveals about the barriers that cultivators have faced entering the legal cannabis market and the persistence and perception of the illicit market's remnants. Additionally, we examine media coverage of the legalization of cannabis in California to gain insights into public attitudes toward how legalization and the creation of brand-new regulatory frameworks have impacted local communities and, more broadly, California residents.

Despite its rapid growth in economic value over the past ten years, cannabis remains a poorly understood agricultural crop, with relatively little published research on its production and potential environmental impacts (Butsic et al., 2018). Research on cannabis cultivation practices and how regulatory frameworks impact the cannabis industry is scarce for various reasons. Funding and feasibility challenges are further complicated by cannabis' legality by the federal government, as State and local regimes legalizing cannabis are contrary to federal law, which considers cannabis a Schedule 1 drug and bans its production, distribution, and use (US Drug Enforcement Administration, n.d.). This "quasi-legal" status creates barriers to obtaining federal funding for cannabis research and provides unique challenges to governing cannabis cultivation (Short Giannotti et al., 2017). Other scholars note that the policy scholarship around cannabis is fragmented, with "economic development scholars investigating emerging taxation regimes, health policy researchers analyzing how different legalization approaches impact cannabis usage, [and] crime-concerned researchers studying implications of legalization for public safety" (Kavousi et al., 2021, p. 144). Kavousi et al. argue that it is important for scholars to examine the full range of impacts of cannabis legalization because communities grapple with that full suite, particularly local governments, because it is at the local level that the "rubber hits the road" for stakeholders (Kavousi et al., 2021).

Much of the existing research on local regulation has also focused on Northern California–most often on the Emerald Triangle–and this geographic emphasis has left a gap in the available literature. Prior studies that examined the environmental impact of cannabis in Northern California have suggested that on a per-unit-area basis, illicit cannabis agriculture had similar or even greater environmental impacts than the timber harvest industry, resulting in habitat loss and fragmentation (Wang et al., 2017). This gap in geographic coverage means that existing research fails to capture the impacts of regulation on a broader level or fails to compare the regulatory approach across multiple regions of the State.

Local governments increasingly use their land use and police power authority, taxation, investment, and programming to shape how cultivators, residents, and community members engage with cannabis (Kavousi et al., 2021). Examining how different counties are complying with State laws like MAUCRSA and CEQA while designing and implementing their cannabis ordinances is important to understand how and why local bottlenecks may contribute to California's lack of licensed cultivators.

At least one explanation for why research has limited geographic coverage in California is that the crop was only recently legalized; the CDFA did not begin issuing licenses for commercial cannabis cultivation sites in California until January 1, 2018. For example, many of the planning codes and county ordinances that were the subject of this report underwent significant amendments and changes as late as 2021. Studying the efficacy and impacts of the regulatory processes across multiple counties and how local processes impacted compliance amongst cannabis cultivators is, therefore, novel research in an emerging legal industry.

A. Legalization promotes criminal justice reform goals–but current and future research needs to explore the impact of prior criminalization on how local governments regulate cannabis cultivation today.

Prior research has concluded that there is a wide range of policy justifications behind the legalization of cannabis cultivation in California including criminal justice concerns, environmental protection, and financial considerations. Drafters sought the support of civil rights groups and included provisions in Prop 64 to help remedy the mass incarceration of people of color for drug offenses, uneven sentencing guidelines for drug crimes, and gang violence rooted in the drug trade (Nittle, 2020). Proposition 64 eliminated or reduced most criminal penalties in California for marijuana offenses (“Prop. 64: A Guide to Resentencing & Reclassification,” 2017). Additionally, people with prior convictions for marijuana offenses reduced or eliminated through Proposition 64 (whether they were currently in prison, on probation or parole, or had already

completed their sentence) could petition a court to have their convictions reduced or dismissed.

Prior research concluded that the criminalization of cannabis created a stigma "inherently entrenched and complicit in the subjugation of marginalized groups disproportionately harmed by the United States' long-running war on drugs" (Kavousi et al., 2021, p. 145). Scholars argue that current and future research designs must consider the historic criminal injustices associated with prior criminalization and the challenges some face in accessing the legalized space (Kavousi et al., 2021). Specifically, according to these researchers, this means that methods must "center [] the unequal burdens of cannabis criminalization borne by Black and Brown people; the difficulties of peoples of color, small businesses and formerly illicit operators" may face in trying to access regulated markets (Kavousi et al., 2021). In the context of this research design, the focus of our collection and analysis will focus on potential local regulatory hurdles to moving more illicit growing to the regulated, legal space. In doing this, we can also explore whether the data identify disproportionate impacts on any group and whether prior criminalization plays a role in how local governments regulate cultivation.

The State also explicitly stated that it aimed to reduce the negative criminal justice impacts of cannabis prohibition. In 2013, anticipating that cannabis legalization would be on the 2016 ballot, the State formed the Blue-Ribbon Commission on Marijuana Policy (BRC) to "provide expert research and analysis to help the public and policymakers understand the range of policy issues and options to consider when drafting proposals to legalize, tax, and regulate marijuana" (Blue Ribbon Commission, n.d.). In 2015 the BRC released its first publication, *Pathways Report: Policy Options for Regulating Marijuana in California*. BRC argued that in the transition to a legal cannabis market, one public policy goal should be to reduce the harms associated with the prohibition of marijuana (including the criminalization of people) while capturing the benefits of a legalized system (Newsom et al., 2015).

B. Legalization is meant to help prevent additional environmental damage– but scholars debate the potential impacts of legal cultivation on the environment.

Much of the literature on cannabis cultivation demonstrates that the absence of comprehensive legislation to prevent and mitigate environmental damage exacerbated the harms associated with illicit growing (Carah et al., 2015; Yates & Speer, 2018). However, the full effects of the environmental degradation caused by cannabis remain unclear, and scholars point to the pressing need for a more thorough review of its environmental impact (Zheng et al., 2021).

One of the issues framing the debate on illicit cannabis cultivation in California centers around the crop being grown near sensitive watersheds with high biodiversity (Bauer et al., 2015). Illicit cannabis water demand has historically been considered to threaten California's watersheds' health, yet an accounting of cannabis irrigation has remained elusive (Dillis et al., 2023).

The amount of water cannabis requires can significantly impact small streams and creeks, as water for cannabis cultivation is sometimes taken from small streams in headwater areas where even a few small diversions can dry up an entire stream ("Environmental Impacts of Illegal Marijuana Cultivation," 2017). Also, at least some researchers describe cannabis as a water-intensive crop relative to California's other agricultural staples, requiring nearly twice the irrigation water of wine grapes per plant, or approximately 22 liters of water (about 6 gallons) per day during the growing season ("Environmental Impacts of Illegal Marijuana Cultivation," 2017). There is not a consensus on this topic, however. Recent research "hasn't found cannabis to be particularly thirsty relative to other crops...with legal outdoor production using the same amount of water as a crop like tomatoes" (Public Policy Institute of Cal., 2021). Additionally, research suggests that the water demands vary between permitted and unpermitted cannabis cultivation. A 2023 study by Christopher Dillis and Van Butsic, et. al., drawing on data obtained from both permitted and unpermitted cultivation operations, applied novel water-use models to cannabis farms in Humboldt and Mendocino counties to estimate their cumulative and relative water footprints. Results from scenario modeling indicated that if "all existing unpermitted farms were to become permitted and comply with regulations that prohibit surface water diversions in the dry season, nearly one-third (34 of 115) of the study watersheds would experience a 50% reduction in dry season water extraction" (Dillis et al., 2023, p.1).

This question is important because California's Mediterranean climate limits surface water availability within these watersheds during the cannabis growing season. Moreover, some of these same watershed areas are habitats for several rare State and federally listed species (Carah et al., 2015). Cannabis as a crop may impact California's environmental health if it is a water-intensive crop, given limited water resources. Moreover, illegal cultivation in sensitive ecosystems may generate cumulative environmental impacts that are disproportionately large relative to the area under production (Carah et al., 2015). Cultivation can contaminate waterways with pesticides and cause erosion by removing native vegetation ("Environmental Impacts of Illegal Marijuana Cultivation," 2017).

Many scholars argue that the legalization of cannabis can address ecological impacts because it allows the State to regulate the practice and place greater controls over its environmental impacts (O'Hare et al., 2013). The AUMA provided safeguards to

reduce environmental degradation, including restricting pesticide use and funding enforcement of regulations on water diversions that harm wildlife. Additionally, Prop 64 required licensees to prove they complied with CEQA, the State's Endangered Species Act, lake or streambed alteration agreements, the Clean Water Act, and other environmental regulations in the State.

C. Increasing cannabis tax revenue provides an important policy justification for legalization–but that assumes cannabis operators enter and remain in the legal marketplace.

Legalization allows for tax revenue, revenue that can pay for environmental and health policies related to cannabis. California's independent Legislative Analyst's Office (LAO) estimated that the AUMA would generate between the high hundreds of millions of dollars to over $1 billion annually in tax revenue and up to tens of millions in savings annually ("Proposition 64 [Ballot]," 2016). Specifically, legalization theoretically would generate new cannabis tax revenues to pay for youth programs, prevention and treatment for substance abuse, environmental restoration, and public health initiatives (Silver et al., 2020). After voters approved the AUMA, two new cannabis taxes went into effect on January 1, 2018: a cultivation tax on all harvested cannabis that enters the commercial market (Cal. Rev. & Tax Code §34012(a)) and a 15% cannabis excise tax upon purchasers of cannabis and cannabis products (Cal. Rev. & Tax Code § 34011(a)). In August 2021, the California Department of Tax and Fee Administration ("CDTFA") reported that the total program revenue to date was only $2.8 billion over four years.[53] However, in 2022, Assembly Bill 195 revised the Cannabis Tax Law to discontinue the imposition of the cultivation tax entirely (AB 195, 2020-2021 Leg., Reg. Sess. (Cal. 2021)); therefore, beginning on July 1, 2022, the cultivation tax no longer applies to cannabis or cannabis products that enter the commercial market. In February 2023, CDTFA reported total cannabis tax revenue to date (since January 2018) is $4.6 billion, including $2.3 billion in cannabis excise tax, $1.8 billion in sales tax, and $501.3 million in cultivation tax (CDTFA, 2023). Thus, cannabis tax revenue in California has fallen slightly below the LAO's 2016 estimates of 1 billion dollars annually.

Though cannabis tax revenue provides a major policy justification for legalization, California began constructing a legal framework without complete information about how the illicit trade shaped regional economies (Short-Giannotti et al., 2017). The prohibition and production of illicit substances can operate as "mutually constitutive processes" as the "banning of a particular substance produced in one place often leads to a desperate bid to find a substitute somewhere else" (Banister et al., 2015, p. 367).

[53] The $2.8 billion total includes $1.4 billion in cannabis excise taxes, $347.4 million in cultivation taxes, and $1.0 billion in sales taxes.

Ignoring the economic value of the illicit trade has major implications, as local government opposition, high taxes, and competition from unlicensed businesses may cause some operators to work simultaneously in the legal and illicit markets. This is a major issue in California as the illegal market was estimated in 2019 to be roughly $8 billion annually, twice the volume of legal sales in the same year (Statista, 2022).

Certainly, legalization has led to increased sales and tax revenue. Still, only a fraction of cultivators have entered the legal market (US Department of Agriculture [USDA], 2021). There are potentially thousands of cultivators outside of the permitted system - in 2021 alone, the Department of Justice's annual Campaign Against Marijuana Planting (CAMP) program announced the eradication of nearly 1.2 million illegally cultivated marijuana plants and the seizure of more than 180,000 pounds of illegally processed marijuana (Cal. Office of the AG, 2021). Unregulated cultivation activities do not generate revenue but still impose costs on local and state governments.

D. Research suggests that financial, learning, and psychological costs deter some operators from entering the regulated market.

Prior research on attitudes of California cultivators towards legalization suggests that the financial, learning, and psychological costs associated with participation in the legal market deter some cultivators from entering the legal market (Bodwitch et al., 2021). Financial costs include the costs of compliance with the State and local standards, which can be burdensome (Bodwitch et al., 2021). Learning costs include understanding how the regulatory system operates and preparing applications for permits – these costs can be high given the complex nature of California's regulatory system (Bodwitch et al., 2021). Applicants report psychological costs of compliance associated with market insecurity, regulatory flux, and the fear that interacting with the government to comply with regulation might produce cascading regulatory requirements (Bodwitch et al., 2021). The study suggested that compliance appears to alleviate some of the psychological costs associated with engaging in illicit activities - cultivators who applied for permits were "motivated to do so to mitigate the threat of enforcement, provide security for their family and workers, and to benefit from the future value licenses may hold, suggesting a greater sense of safety, security, and future" (Bodwitch et al., 2021, p. 168). Non-applicants, however, do not perceive that participation will give them these benefits, but to the contrary, "have identified non-compliance as the least taxing, psychologically speaking" (Bodwitch et al., 2021, p. 168). Psychological costs may also include suspicion that if operators comply with local law, they may make themselves vulnerable to potential federal prosecution - research in northern California's Siskiyou County has found that some local police may attempt to prevent growth and distribution even where cultivation is legal, going so far as partnering with federal law

enforcement (Polson & Petersen-Rockney, 2019). The risk of Federal prosecution extends beyond the cultivators themselves, as even landowners leasing land or facilities to cannabis operations can be held liable for criminal activity that occurs on their property and their land seized by the federal government, even in States and localities that permit cannabis activities.[54]

Compliance costs arise from bringing projects into compliance with local ordinances, including upgrading buildings to meet disability access standards, constructing culverts for access roadways, and addressing previous environmental impacts (Bodwitch et al., 2021). These burdens may be further exacerbated by the "inconsistencies and antagonistic cross-purposes among federal, state, and local cannabis policies…aggravated by the denial of basic supportive programs for farmers" (Bodwitch et al., 2021, p. 14).

These burdens matter: One survey of California cultivators suggested high rates of noncompliance with the new regulatory regime and the need to explore further conditions that might incentivize cultivators to apply for cultivation licenses (Bodwitch et al., 2019). Survey responses indicated the regulatory process might need to reduce compliance costs and address concerns about legal repercussions from enhanced government oversight (Bodwitch et al., 2019). Cultivators who responded to the survey characterized legalization as a process that excludes small cultivators by imposing costly burdens that are not well-tailored to the requirements of small cultivators, contributes to an increase in illicit market sales by deterring compliance with regulations, and undermines the economies in rural communities by discouraging legal cultivation by small, legacy cultivators (Bodwitch et al., 2019). Fifty percent of survey respondents explicitly stated that legalization privileged larger, wealthier operations or put small organizations out of business (Bodwitch et al., 2019). The survey results also showed that nineteen percent of respondents indicated they believed that legalization corresponded to a rise in unregulated market exchanges, and 25% of respondents indicated that they felt that the legalization initiative in California was altering community economies (Bodwitch et al., 2019).

These administrative barriers may impact rural communities by placing pressure on small, legacy cultivators that have been key contributors to rural economies (Bodwitch et al., 2021). Moreover, policies that exclude farmers who lack the resources to comply can amplify existing racial, gender, and class-based inequalities, especially to the degree they restrict capital access (Bodwitch, 2017; Byemba, 2020). Local

[54] *See* §856(a)(1) of the federal Controlled Substances Act which states that criminal liability also rests with those who "open, lease, rent, use, or maintain any place, whether permanently or temporarily, for the purpose of manufacturing, distributing, or using" marijuana. Pursuant to subsection (2) of the Controlled Substances Act, liability also extends to those who "manage or control any place, whether permanently or temporarily, either as an owner, lessee, agent, employee, occupant, or mortgagee, and knowingly and intentionally rent, lease, profit from, or make available for use, with or without compensation, the place for the purpose of unlawfully manufacturing, storing, distributing, or using" marijuana."

regulation can contribute to barriers to compliance and impact cultivators and local economies. Additionally, local jurisdictions routinely use zoning and planning to address controversial land uses that may pose public health and safety risks in their communities (Ashe et al., 2003). But “the land use implications for the cultivation, distribution, and use of [cannabis] are just beginning to be dealt with through zoning ordinances" (Salkin, 2011). In this context, zoning may lead to exclusionary outcomes if policies increase participation costs or create other barriers to entry for existing producers (Biber & Ruhl, 2014).

If operators choose to enter the legal market, they face taxes, labor laws, environmental regulations, local regulations, business licenses, and copyright/licensing fees, while illicit businesses can circumvent many of these costs; thus, current literature suggests California’s regulatory system has contributed to an environment where “consumers, from the start, have no particular incentive to favor legal [cannabis]” (Goldstein et al., 2022, p. 24). Depending on which region of California a cultivator is operating in and how the numbers are compounded, the cost discrepancy for licit versus illicit grows is equivalent to a tax rate of around “35 to 50 percent of the retail price for legal weed, which already starts out quite a bit higher than the illegal weed price because of all the regulatory costs along the supply chain.” (Goldstein et al., 2022, p. 49). In their 2022 book *Can Legal Weed Win?: The Blunt Realities of Cannabis Economics* authors Robin Goldstein and Daniel Sumner liken the current cannabis market to that of the alcohol market during the middle of prohibition, where “legal and illegal sellers of substitute goods compete for side by side for business” (Goldstein et al., 2022, p. 10-11). Goldstein and Sumner argue that such costly barriers to entry and a strict and limited set of conditions required for licit cannabis cultivation, like the prohibition of alcohol, can lead to most products “sold outside the legal channel that gives expensive permissions to just one narrow range of specialty businesses” (Goldstein et al., 2022, p. 11).

E. Research supports that regulation over land use has increased in complexity and variability, and this variability may also exist in the way cannabis is regulated in California.

A key focus of our research is land-use regulation of cannabis cultivation, and as noted above, this may be a key barrier to creating a functional legal cannabis market. We, therefore, draw on the academic literature studying land-use regulation to inform our research. We examine how land-use regulation can produce exclusionary outcomes, in which land uses that, in theory, are desirable are effectively prohibited by the operation of the land-use system.

Land use regulation has increased in complexity and variability across jurisdictions (William, 1990), and stringent or exclusionary land use regulation has multiple dimensions (Gyourko & Molloy, 2014; Saiz, 2010-a). Stringency and exclusion are related, but they are not the same thing. Stringent regulation, often measured in terms of restrictiveness, might be a tool to promote the exclusion of certain categories of projects or residents from communities (O'Neill et al., 2020). But stringent regulation may also be used to promote inclusion if, for example, an inclusionary zoning mandate (which researchers may count as an indicator of stringency) operates to support affordable housing development (Jackson, 2018; Schuetz et al., 2009). In the residential context, where most land use research has focused, scholars have identified three common dimensions of stringency in land use regulation (1) prohibition of some or all residential development outright in base zoning; (2) imposition of fees and costs on residential development (Been, 1991), and (3) onerous process that generates increased uncertainty of approval, potentially generating time lags to approvals to build even on parcels that provide for appropriate use and density (Gabbe, 2018; Jackson, 2016; Einstein, D Glick, & Palmer, 2017) or public opposition that may lead to a denial of a right to build.

Academic research has also noted the extensive variability of local land use regulatory systems. Not only do regulatory systems vary by state, but often by region or even by locality within a State (Biber, et al., 2022; O'Neill, et al., 2022). Local governments may use different terms for the same processes; they may call the same processes different terms; and often use very different processes to review and approve the same kinds of projects.

Variability in local land use regulation exists because most land use regulation occurs at the local level, and this is true for cannabis as well. A major compromise of Prop 64 is that CA counties are empowered to prohibit cannabis weed sales, as key "local control" or "local option" provisions of Prop 64 "provide that any city or county in California has the right to ban weed businesses from its jurisdiction." (Goldstein et al., 2022, p. 119). State law gives counties broad regulatory powers to regulate or even prohibit commercial cannabis cultivation, and counties vary in how they have used that authority (Dillis et al., 2021). Additionally, researchers have found that county-level regulations (obtained from official county websites) for a subset of counties included in the current study reveal substantial inter-county variation (Dillis et al., 2021).

F. Conversations in Cannabis Discourse: Contemporary Media Frameworks, and Public Attitudes Towards Cannabis Legalization.

Communication researchers have examined how the news media can use framing of issues to influence public perceptions or attitudes (Scheufele, 1999). Media

narratives can transform and reinforce public perceptions by creating frameworks for public adoption and can influence institutional policy decisions (Brown 2013). A frame refers to a key organizing theme or idea organizer that packages an issue in a specific way to describe the issue (Kim & Kim, 2018). News framing can influence the public's perceptions of public policy, including marijuana legalization (Scheufele & Tewksbury, 2007). Research suggests that harsh policy implications can result from shifts in popular outrage spurred by media representation of issues, even when lacking statistical evidence of the issue actually taking place (Beckett & Sasson 2004). The legalization of commercial cannabis is a recurrent topic examined in local and national media, and we examine high-profile coverage of the legalization of cannabis in California to gain insights into public attitudes toward the development of cannabis regulations in the state.

Media coverage has discussed a perceived boom in illicit sales and identified challenges in establishing a regulated cannabis market in California. In 2022 the Los Angeles Times chronicled the unfolding of cannabis regulations in California through a series titled *Legal Weed, Broken Promises.*[55] The series investigates the original policy aim of Proposition 64 to solve much of the violence and environmental wreckage associated with illicit cannabis but suggests that the outcome of legalization in California has resulted in “huge illegal grows, violence, worker exploitation, and even deaths" (Toledo & Hendry, 2022). As part of their series, The Los Angeles Times also mapped unlawfully grown cannabis in six counties[56] using 2021 satellite imagery from a mix of public and private sources to canvass nearly 3,000 square miles of land in parts of six counties (St John, 2022-a). The investigation found the surveyed area contained 25 million square feet of illicit greenhouses with ample capacity to grow 2.6 million pounds of weed - enough to supply the entire legal California market (St John, 2022-a). Other national media that examined the development of cannabis regulations post Proposition 64 include a 2023 article by the Wall Street Journal Editorial Board that argues high taxes and regulation have made it harder for state-licensed businesses to make money and that “higher prices in the state-regulated market have led to a boom in the black market controlled by drug cartels, which has led to violence and water theft” (WSJ Editorial Board, 2023).

Similar themes are in a 2021 article published in Politico, *California’s Legal Weed Industry Can’t Compete with Illicit Market.* The article points to local government opposition, high taxes, and competition from unlicensed businesses as factors contributing to the failure of the legal market (“California’s Legal Weed Industry Can’t

[55] This series was included in the top ten most-read cannabis-related stories published by the Los Angeles Times in 2022 (LA Times, 2022).
[56] The counties mapped through the Los Angeles Times series were Siskiyou, Trinity, Mendocino, Shasta, Butte, and San Bernardino Counties.

Compete with Illicit Market," 2021). The article further suggests that California's strict regulations have led most industry operators to close their businesses, flee the state or sell in the state's illegal market "that approaches $8 billion annually, twice the volume of legal sales" ("California's Legal Weed Industry Can't Compete with Illicit Market," 2021).

In contrast, a 2021 article in *The Guardian* argues that the challenges that California has encountered are attributable not to the way the legal, and regulatory frameworks have developed but rather are inherent in bringing a gray market that for decades has thrived in the shadows into the light (Lewis, 2021). The proliferation of the illicit cannabis market "runs deeper than any flaws in Proposition 64, or actions taken over the past five years," but rather, the regulated cannabis economy is in disarray largely because of everything that happened in the two decades *before* Prop 64 passed that primed the industry into being accustomed to operating illicitly (Lewis, 2021).

G. Data on Preexisting, and Contemporary Illicit Cannabis Cultivation is Difficult to Quantify Because Different Estimates Exist for Illicit Grows on Private Land, vs. Trespass Grows on Public Land.

One metric for the success of cannabis legalization at the local level would be the proportion of pre-existing cultivation sites that have received local permits and state licenses. However, calculating this metric presents significant challenges because accurately quantifying the total acreage of illicit cannabis cultivation in California is quite difficult. Numbers vary greatly depending on the year, whether the illicit cannabis cultivation is being measured before or after the passage of Proposition 64, and by what type of illicit cannabis cultivation site is being measured. There is no unified publicly-available source for measuring illicit cannabis cultivation sites in California, as counties and state agencies quantify and report their numbers using different methodologies. In some counties, numbers are reported by law enforcement, the planning department, or other county officials. The Los Angeles Times describes the number of illegal cannabis cultivation sites in California as elusive and embarked on its own effort to map illegally grown cannabis using satellite imagery obtained in 2021 from public and private sources (St John, 2022). The Times canvassed nearly 3,000 square miles of land in parts of six counties,[57] two of which are in our study: Mendocino and Trinity (St John, 2022). In Trinity County, the Times found that of the 782 mapped cannabis farms below Post Mountain, all but 68 lacked a state license as of early 2022 (St John, 2022). Although their mapping analysis only covers two of the counties we study, and only partially covers the areas of those counties, the Times found "dramatic shifts" in how cannabis is grown and where it is located, and observed that in all the counties

[57] The six counties include Siskiyou, Trinity, Mendocino, Shasta, Butte, and San Bernardino.

observed, unpermitted cultivation had increased since Proposition 64 passed in 2016 (St John, 2022). This mapping by the Times is helpful to contextualize the numbers of contemporaneous illicit cultivation occurring during our study years but is also limited as it only covers two of our study counties and only certain areas of those counties. As such there could be additional illicit cultivation occurring in Mendocino and Trinity that was not included in the scope of the analysis and doesn't account for illicit cultivation in the other counties we study. As such, although the numbers we provide in this section are helpful for contextualizing our analysis, they should not be relied upon as accurate and should only be utilized as estimates.

There are two categories of illicit or unpermitted production: "trespass grows" which are sites that are unlawfully cultivated on public lands, and private grows which are cultivated on private land but are unpermitted or licensed. Private grows may also be considered "trespass grows" if the individual(s) that are illicitly cultivating are doing so without the permission of the landowner. The total number of grow sites in each category can be difficult to estimate (Dillis et al., 2021). Scientific research, as well as government enforcement programs, indicate that only a fraction of cultivators have entered the legal market since the passage of Proposition 64, and there are thousands of cultivators estimated to be outside of the permitted system (US Department of Agriculture [USDA], 2021). Research estimates the number of trespass sites in California to be in the thousands (McDaniel, 2019, Weber, 2019). In 2021 alone, in an investigation across 26 counties, the Department of Justice's annual Campaign Against Marijuana Planting (CAMP) teams eradicated around 1.2 million unlawfully cultivated marijuana plants, seizing more than 180,000 pounds of illicitly processed marijuana (Cal. Office of the AG, 2021).[58] A 2021 report examining the potential threat to wildlife from illicit cannabis on public lands in California and Southern Oregon suggests that trespass cannabis cultivation may have increased rapidly in the western United States in the past decade, although it is unclear if this is due to more awareness of trespass cultivation rather than an actual increase (Wengert et al., 2021).[59] Unpermitted sites on private lands are likely to be even more numerous (Dillis et al., 2021). Because trespass grows are on land that is not owned or leased by the cultivator, often on public lands, trespass cultivators would be unlikely candidates to enter the legal market even if local permits are available.

Estimates as to illegal cultivation vary significantly as to whether illegal cultivation is increasing or decreasing. While some reports state that the number of trespass grows is increasing, there is some evidence that they may have declined after legalization

[58] These cultivation sites were discovered on both public and private lands, including in the Los Padres National Forest, the Cleveland National Forest, the San Bernardino National Forest, the Shasta-Trinity National Forest, the Klamath National Forest, the Sierra National Forest, and the Sequoia National Forest.

[59] The study notes that this may be due to increased awareness of the issue rather than actual increase in trespass cultivation.

(Klassen and Anthony, 2019); and for the most part, changes in the number of unpermitted grows on private lands is currently unknown (Dillis et al., 2021). Trends in the years closely preceding the passage of Proposition 64 pointed to dramatic growth, as the amount of land used to grow cannabis approximately doubled from 2009 to 2012 (Wang, 2018). In 2019, the illicit market was estimated to be roughly $8 billion annually, twice the volume of legal sales in the same year (Statista, 2022).

Accurate numbers reflecting the volume of illicit cannabis cultivation may be even more difficult to pinpoint in areas that are remote, where the majority of illicit cultivation took place before Proposition 64 was passed. Before the legalization of recreational cannabis cultivation, Humboldt, Mendocino, and Trinity counties were frequently referred to as the "Emerald Triangle" because of the volume of illicit cannabis that was cultivated in these counties. In 2015, the Blue-Ribbon Commission on Marijuana Policy stated that "local officials in Northern California estimated there are more than 30,000 cannabis gardens in the Emerald Triangle region of the State alone" (Newsom, 2015, p. 12). Within one year of the passage of Proposition 64, Humboldt's official estimates indicated there were more than 10,000 large-scale cannabis farms in the county, with only about 2,300 of them having entered the permitting process (Greenson, 2023). The following year researchers estimated that Humboldt and Mendocino counties alone had around 15,000 illegal farms in 2018 ("How Does Cannabis Cultivation Affect California's Water?", 2023).

Nevada County cannabis officials provided a presentation to the Nevada County Board of Supervisors in January 2020 stating they estimated there were 3,500-4,000 cannabis grows in Nevada County, while the County only received 89 cannabis cultivation applications (Nevada County Community Development Agency, Cannabis Program, n.d.). Given the uncertainty in estimates, we do not use these estimates to assess the proportion of sites that have been legalized in Humboldt, Mendocino, Trinity, or Nevada counties.

H. Our Report Aims to Fill Gaps in Prior Research Regarding How Counties Regulate Cannabis and the Extent to Which Local Action Impacts the State's Goals of Legalization.

Our above review of the existing academic literature on cannabis legalization demonstrates that we do not know nearly enough about how local governments regulate cannabis cultivation. There is scant research exploring the regulatory framework across the State, let alone exploring the impact of how local governments are implementing the regulatory framework.

Local regulation of cannabis cultivation in California is implemented in important ways through land use regulation. Accordingly, the academic literature studying the

nature and implications of local land use regulation is important to help frame hypotheses about how local governments might regulate cannabis cultivation. The academic literature has found that local and state governments may have divergent interests and goals for land use policy (Biber et al., 2022, O'Neill et al 2022). In particular, the very different spatial scales of local and State governments can mean that they have divergent incentives to approve specific land uses (Biber et al., 2022). Local governments often resort to discretionary review processes to veto undesirable projects or obtain leverage to negotiate significant concessions from project proponents (Biber et al., 2022, O'Neill et al 2022).

Understanding how local land use operates is complicated by the variability of land use regulation on the ground, as noted above. One research approach to address the complexity and opacity of local land use regulation is to use mixed methods that examine case studies of how particular jurisdictions design and apply their land use regulatory systems (O'Neill et al., 2022). This approach allows for a close examination of how the regulatory systems of individual jurisdictions operate and can identify how terms and processes vary. We will adopt this mixed-methods approach to explore how eleven counties regulate cannabis cultivation.

IV. Research Question and Hypothesis

The objective of our study is to determine whether local government regulation of cannabis cultivation is advancing the purposes of the AUMA and specifically the extent to which local regulation of commercial outdoor and mixed-light cannabis cultivation is taking that cultivation "out of the hands of the illegal market" and "bring[ing] [it] under a regulatory structure that…protects public safety, public health, and the environment" (Proposition 64 § 3(a)).

To meet this objective, this study: (1) summarizes the legal pathways local governments have created for outdoor and mixed-light cannabis cultivation; (2) describes and quantifies the pathways used by projects that have become compliant; (3) quantifies the timeframes for approval processes; and (4) summarizes the terms and conditions imposed by local governments on those approved projects. Achieving these specific aims then allows for analysis of whether local government regulatory processes are demanding and/or which issues local governments are/are not addressing in their regulatory processes.

Based on our review of existing research and the background and context of cannabis, we hypothesized that:

1. Local land use regulation is highly variable, making it difficult for researchers, the public, or the State to evaluate how local regulations support larger State policy goals readily.

2. Prior land use research regarding affordable housing has found a high degree of variability in housing regulations between local jurisdictions because of local control (O'Neill et al., 2021). As we see this phenomenon in other land use contexts, we hypothesize that the local regulation of cannabis land use is also highly variable. State law does not limit local government's police powers to regulate cannabis land use ordinances and allows counties to issue or deny a permit to cultivate medical marijuana (AB 243, 2014-2015 Leg., Reg. Sess., (Cal. 2015)). Prior research has noted the heterogeneity of State-level cannabis regulation (Cambran et al., 2017; Chapman et al., 2016; Garvey & Doyle, 2014; Pacula & Sevigny., 2014) and this could be extrapolated to the state and local dynamics. As no federal law regulates cannabis, states have been left to make their own regulatory frameworks. Similarly, as California did not have a statewide regulatory program for 20+ years, local governments were left to develop their regulatory frameworks post Proposition 64. Each county created its process without a guiding principle for regulation, and we hypothesize that those processes vary significantly.
3. Local regulation has changed substantially over short periods and will continue to change substantially. The dynamic nature of local regulation is partly driven by constant changes in cannabis policy at the state and federal levels. In addition, local governments have been navigating a relatively new area of regulation since the AUMA was passed in 2016, meaning that they may have to change or update regulations as they learn more about how regulation operates.
4. Local regulation may produce new combinations of regulatory systems that are different from previous regulation paradigms. Given the novelty of the regulatory area, local governments may develop new regulatory systems that differ substantially from prior systems applied to areas such as residential development.
5. Local regulation often relies on discretionary review processes to enable local governments to veto locally unpopular projects. Cannabis remains a controversial in California, and neighbors often object to projects in their area. As in the housing context, local governments can best respond to neighbor pressures to reject or modify proposed projects by imposing discretionary review on proposed cannabis cultivation projects.
6. Local regulation will often treat new cultivators differently from legacy cultivators. Given the long history of illicit cultivation in the state, many legacy cultivators in California may pose very different regulatory challenges than new growers. Legacy cultivators may be located in more remote areas, with more environmental compliance challenges, and may have fewer resources to meet

compliance obligations (Bodwitch et al., 2021; Dillis et al., 2021). As a result, local governments may set up regulatory systems that attempt to support these legacy growers; alternatively, they may facilitate new growers who may be easier to navigate through the regulatory process.

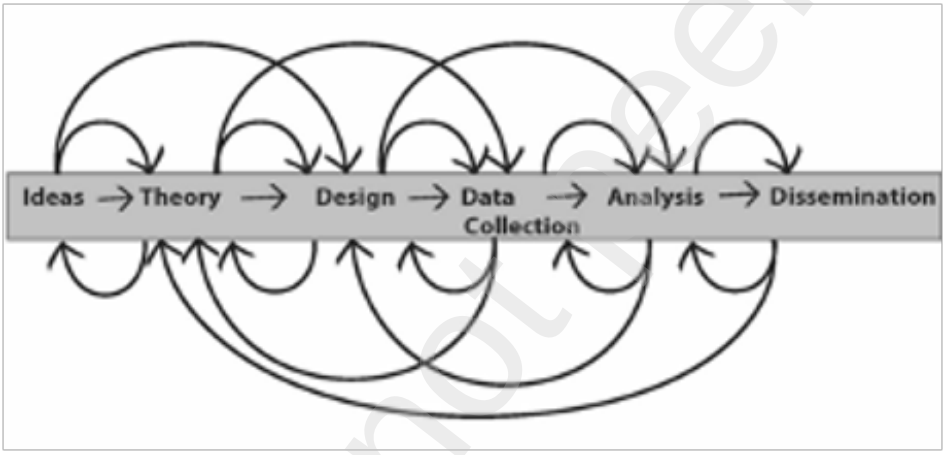
7. Local regulation will significantly constrain where cannabis can be legally cultivated. Given the likelihood of neighbor opposition to many cannabis cultivation projects, we expect that many local jurisdictions will significantly constrain where cannabis cultivation can occur, either through stringent limits on the geographic locations open to cultivation or through caps on the total number of approved projects, or both.
8. Local regulation will impose significant regulatory burdens on cannabis cultivation, many of which will overlap with other regulatory requirements and may not correlate with the environmental and other risks posed by projects. Again, if local governments want to be receptive to the concerns of neighbors and constituents about future projects, they may often impose a range of conditions on projects to respond to those concerns, regardless of whether those concerns reflect real environmental risks. The process of discretionary review can result in the imposition of significant site-specific restrictions on proposed projects due to the political process of that review. Moreover, cannabis legalization has often required proponents to address concerns from diverse stakeholders about the possible impacts of legalization. In the enactment of AUMA, proponents included provisions to address many environmental, labor, and other social issues. Similar dynamics may play out at the local level when local governments enact local ordinances, imposing a wide range of requirements on proposed projects.
9. Local regulators will face difficult choices about whether and how to structure CEQA review for their cannabis regulatory systems, and the complexity of the CEQA process will cause significant delays and challenges for local governments seeking to approve projects. Local regulators will have to decide whether to undertake a programmatic review for their regulatory program or defer review to individual projects. Local regulators will be faced with the challenge of applying CEQA review to an entirely new regulatory system, and that will likely produce many situations where CEQA compliance is inadequate and significantly delays project approvals at the local level.
10. Applicants will face extended time frames for approval of projects, as counties wrestle with novel regulatory systems and CEQA compliance challenges, neighbor opposition to projects, and planning and licensing departments that have limited resources. Legacy cultivators, who may have fewer resources than

new cultivators, and who may be located on sites with more environmental or compliance challenges, will face longer timeframes for approval.

V. Materials and Methods

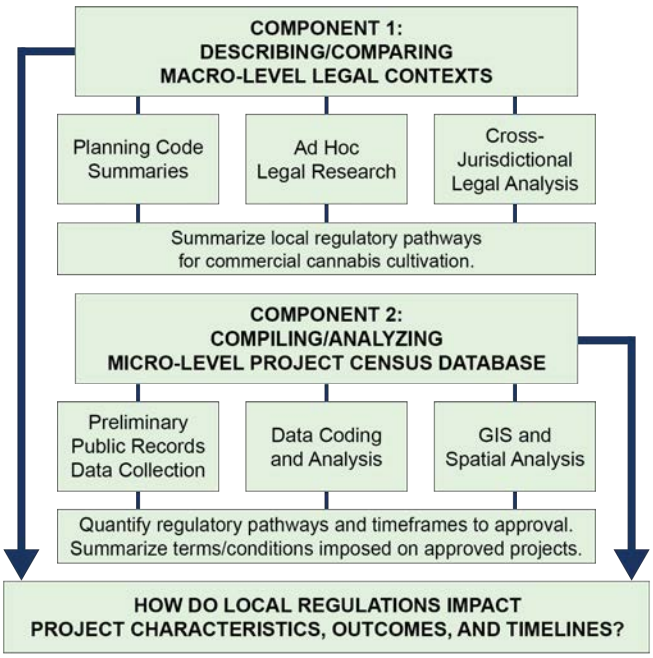
We use a case study approach (Creswell & Creswell, 2018; Yin, 2014) that adopts mixed methods (Creswell, 2013), legal research, and overlapping phases of data collection and analysis (Berg & Lune, 2012). This study also uses a spiraling research approach (compared to a linear approach) to allow for an emergent design that is directly responsive to the novelty of the research and its importance to public policy. We illustrate the difference below. The linear approach assumes all elements of the research will be within a distinct and separate stage, sequenced as seen below (from ideas through dissemination). A spiraling approach permits reexamining theoretical assumptions, possible designs, and sometimes even idea elements throughout the process to allow for an iterative approach. Thus, our findings informed our theory and design throughout this study.

Depiction of a Spiraling Research Approach



In the following sections, we discuss our methodology in detail. We begin by discussing how we chose our study jurisdictions (Section A). We then treat our methodology's two main components: summarizing and analyzing local cannabis regulations in our study jurisdictions (Section B) and constructing and analyzing a project observation census database (Section C). Finally, we discuss the limitations of our research design (Section D).

By summarizing and analyzing relevant local law, we can explore how local cannabis regulations function at the macroscale and how they compare from place to place. Then, by examining individual approved commercial cannabis cultivation projects in our study jurisdictions, we can investigate how those regulations are applied at the micro-scale. By bringing together these macro- and micro-scale patterns within a single study, our research is uniquely suited toward understanding how local regulations impact project characteristics, outcomes, and timeframes.



A. Case Study Jurisdiction Selection Process

To answer questions about the presence and potential impact of specific regulatory and planning tools on commercial cannabis cultivation development patterns in California counties, we used purposeful sampling. We selected eleven counties where the most outdoor cannabis cultivation is occurring. We limited site selection to counties that contained at least 2% of ***California State Water Resources Control Board ("SWRCB")*** permits issued to cannabis cultivators between 2018 and 2019, drawing on Dillis et al., 2021.

B. Summarizing and Analyzing County Cannabis Ordinances

We began our work by reviewing the law applicable to proposed outdoor and mixed-light cannabis cultivation projects within our study jurisdictions. For each study jurisdiction, we generated a planning code summary. We analyzed code provisions most relevant to cannabis cultivation development approvals, starting with the largest-scale planning tools (the General Plan) and then drilling down to the smallest-scale level (use and development controls).

We reviewed each study county's planning and zoning code as they evolved between 2015 and 2023, including medical and adult-use cannabis ordinances and amendments. This allowed us to understand the development of the cannabis regulatory program in each study county. After conducting legal research on the county code, we reviewed county staff policy documents, including cannabis application forms, guides, and FAQs.

We studied county websites, including web pages dedicated to cannabis, planning, building, business licensing, agriculture, and weights and measures. We reviewed county-issued FAQs, performance standards, guidelines, fact sheets, and correspondence and memoranda from county leadership, including the Planning Director, the Board of Supervisors, and cannabis department leadership and staff.

We reviewed environmental documents for each county's cannabis program, including Program Environmental Impact Reports and Program Mitigated Negative Declarations. We retrieved copies of lawsuits filed against counties because of their cannabis programs and studied their outcomes. We also reviewed lawsuits in other jurisdictions within California that discussed the intersection of cannabis and CEQA to understand the precedent set in those cases and how they apply to the jurisdictions we are studying. We analyzed Grand Jury investigations of commercial cannabis programs in Humboldt, Nevada, Monterey, and Santa Barbara.

To supplement our understanding of local law, we attended informational and educational Zoom meetings held by county staff. We watched recorded meetings from the Board of Supervisors and ***Planning Commission*** hearings. We gathered and reviewed news articles regarding cannabis programs from local news outlets to gain insight into local policy contexts.

To gain a deeper understanding of the nuanced issues involved in the land use application process, we also reviewed local cannabis trade association websites, webinars, application guidance materials, and legal memoranda, including material published by Origins Council, the Nevada County Cannabis Alliance, the Humboldt County Growers Alliance, the Trinity County Agriculture Alliance, the Mendocino Cannabis Alliance, the Sonoma County Growers Alliance, and CARP Growers.

To understand community perspectives outside the cannabis industry, we reviewed community-based advocacy and education organization websites, including the Santa Barbara Coalition for Responsible Cannabis.

For each county, we analyzed the following characteristics of local regulation, including:

- Caps on total cannabis acreage, number of permits allowed county-wide permit caps per applicant, and caps on acreage for individual cultivation sites.
- Definitions of mixed-light, outdoor, indoor cultivation**,** canopy, cultivation area, and premises.
- Zoning and setback restrictions.
- Land use permit types, including conditional use permits, zoning clearance certificates, special permits, minor use and major use permits, variances,

licenses, administrative development permits, commercial cannabis permits, use permits, director's use permits, and zoning permits.
- Cannabis business permit types, including cannabis cultivation licenses, annual cannabis permits, and cannabis business licenses.
- Slope and site restrictions.
- County residency and dwelling unit requirements.
- Road requirements.
- Water discharge, water source, and water usage restrictions.
- Energy requirements, including renewable energy, generator usage, public utility, or power upgrade requirements.
- Structure requirements, including rules for buildings, residences, greenhouses, hoop houses, sheds, and shipping containers.
- Lighting and odor mitigation requirements.
- Public hearing and notice requirements, including any appeals process.
- Pre-application meeting requirements and required or recommended CEQA consultants.
- Sensitive species requirements and mitigation measures.
- Fencing and visibility shielding.
- Bathroom and septic system requirements.
- Fire and emergency access requirements, including driveway and road standards.
- Local cannabis cultivation tax rates.
- If applicable, temporary, interim, or provisional authorizations for existing cultivators.
- The CEQA approach each local jurisdiction takes when adopting a cannabis ordinance.
- Ministerial or discretionary approval process and decision-makers; and
- CEQA review process for individual permits, licenses, or other authorization.
- Permitted and restricted uses.
- Rules governing appeals.

We cataloged all characteristics of local processes that appear to be related to cannabis project approvals. From our review, we created tables for comparative analysis, tracking how each county defined terms associated with outdoor and mixed-light commercial cannabis cultivation and whether the counties diverged from terms defined in State law.[60] After completing exhaustive research, we drafted each county's

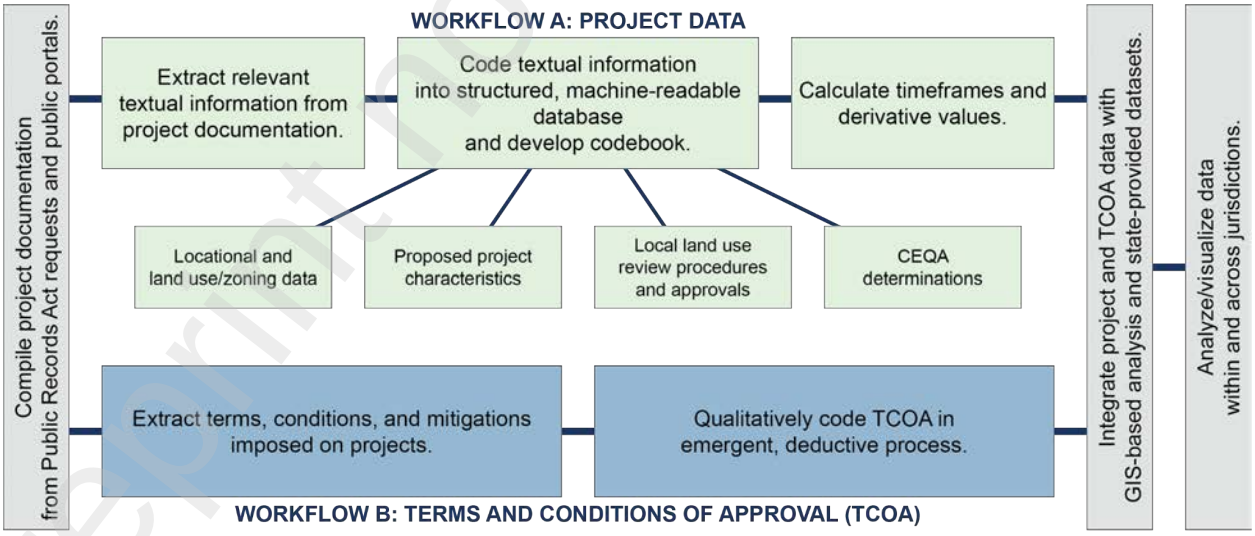
[60] Defined terms tracked throughout our research include each county's definition of "outdoor," "mixed-light," "indoor," "cultivation area," "sensitive-use," and "greenhouse."

preliminary planning code summary. Principal Investigator Professor Eric Biber and researcher Daniel Froehlich reviewed the planning code summaries and provided feedback and further research questions. We incorporated this feedback and edited the planning code summaries to answer any remaining research questions. As local ordinances evolved during this study, we updated and supplemented the planning code summaries with new information.

C. Project Observation Census Database and Analysis

The second primary component of our research design is the construction and analysis of a project observation census database. This database covers locally approved outdoor and mixed-light cannabis cultivation projects in our study jurisdictions and is the micro-level complement to the macro-level legal research and analysis described above. We begin this section by discussing what constitutes an observation in our study context (a). We proceed from there with detailed descriptions of our data-related methods. Specifically, we describe preliminary data collection (b), project data coding (c), and terms and conditions of approval (TCOA) coding (d). Figure 5 provides a schematic overview of this methodological component. This section uses the term “core team” to describe the full-time professional researchers responsible for executing our research program. We use the word “data lead” to describe the core team member who was primarily responsible for developing and managing our data-centric research methods.

Figure 5: WORKFLOW TCOA



1. Defining an Observation

To systematically compile micro-level data concerning individual, locally approved cannabis cultivation projects in our study jurisdictions, we first needed to define what constitutes a valid observation in the context of this study. We define an observation as:

- a proposed commercial cannabis development project.
- which includes an outdoor and/or mixed-light cannabis cultivation component.
- which received all local approvals necessary for securing an annual State commercial cannabis cultivation license.
- between 2018 and 2020.

Though we intentionally formulated this definition as broadly as possible, applying it remained difficult at the local- and project-scales. This difficulty arose for two reasons. First, as discussed previously, one's ability to operate in California's legal, commercial cannabis system functions more as a revocable privilege—subject to ongoing inspection, review, and compliance within a constantly evolving regulatory landscape at both the local and state levels—than as an "entitlement" as traditionally understood in land use regulation generally. Second, we learned from our legal research and analysis that local application and review processes for commercial cannabis cultivation vary widely across jurisdictions, and even within a single jurisdiction, projects with different characteristics may be subject to different processes and/or require different approvals. These factors make it challenging to rely on "entitlement" as a concept in our methodology and complicate pinpointing the "final" local approval for any given project.

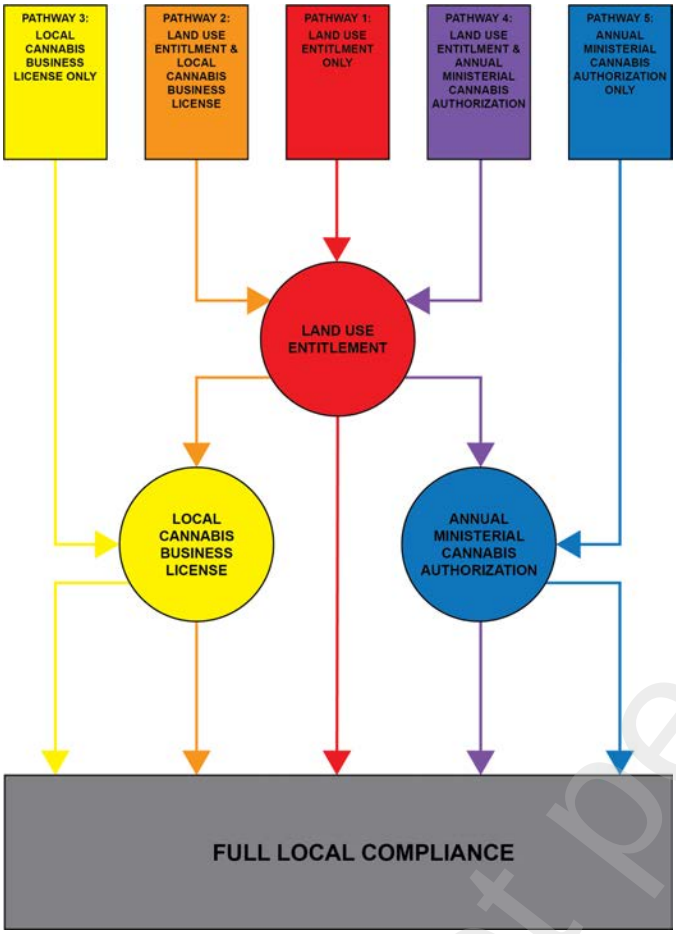
To remedy this situation, we utilized our legal research and early findings from compiling project documentation to develop local cannabis land use review typologies or "pathways" (Table 3). These pathways use functional equivalencies across local regulatory systems to describe what approvals, *at a minimum,* a commercial cannabis cultivation project, would require to be compliant at the local level. Our research identified three primary and distinct approval types: discretionary (or quasi-discretionary) land use entitlements, local cannabis business licenses, and annual local cannabis authorizations. These three approval types are not applicable in all jurisdictions, but each jurisdiction utilized one or more of these approval types in reviewing and approving commercial cannabis cultivation projects.

This typology of pathways allows us to group jurisdictions using similar regulatory approaches while also accommodating the particularities of each jurisdiction's system. While a jurisdiction's regulations may accommodate more than one pathway to local approval, each observation is associated with only one pathway depending on the

jurisdiction in which it is located and its characteristics. This allows us to consistently determine whether a project meets the minimum threshold to constitute an observation without overlooking additional approvals specific to the project. (For example, an observation may require a variance for a setback reduction in addition to the minimum approvals required for any otherwise similar commercial cannabis cultivation project). Furthermore, the pathways framework allows us to compare project outcomes (such as approval timeframes) for similarly regulated projects across jurisdictions.

Table 3: CANNABIS LAND USE REVIEW PATHWAYS

PATHWAY	DESCRIPTION	JURISDICTIONS
PATHWAY 1	Pathway 1 observations require the issuance of a discretionary land use entitlement specific to the commercial cannabis cultivation use.	Humboldt
		Lake
		San Luis Obispo
		Sonoma
PATHWAY 2	Pathway 2 observations require both the issuance of a discretionary land use entitlement specific to the commercial cannabis cultivation use and the issuance of a local cannabis business license.	Monterey
		Santa Cruz
		Santa Barbara
PATHWAY 3	Pathway 3 observations require the issuance of a local cannabis business license only.	Santa Cruz
PATHWAY 4	Pathway 4 observations require both the issuance of a discretionary land use entitlement specific to the commercial cannabis cultivation use and the issuance of an annual local cannabis authorization.	Mendocino
		Nevada
		Trinity
PATHWAY 5	Pathway 5 observations require the issuance of an annual local cannabis authorization only.	Mendocino
		Sonoma
		Trinity



2. Initial Outreach to Jurisdictions and Compiling Project Lists

In June and July 2021, the research team made initial contact with the 11 study jurisdictions, requesting a list of outdoor and mixed-light commercial cannabis cultivation projects from 2018 onward, including such data points as internal planning identifiers, address information, and dated review milestones. In most jurisdictions this initial outreach was informal, but four jurisdictions (Lake, Monterey, Mendocino, and Trinity) required formal Public Records Act requests. Most jurisdictions ultimately provided this information, which we call the "jurisdiction-provided dataset." In general, these jurisdiction-provided datasets were over-inclusive in that they included all cannabis-related uses (not just outdoor and mixed-light cultivation) and all projects in the land use review pipeline (not just approved projects). Additionally, these datasets generally appeared to be standardized, existing reports that staff could quickly generate from existing data management systems or appeared to be internal spreadsheets used to track project information and milestones manually. Therefore, each jurisdiction-provided dataset required substantial upfront vetting to be rendered usable as a basis for preliminary data collection. Depending on the quality and thoroughness of the

dataset, this vetting process may have included verifying the status of each project against the jurisdiction's online public access portal (where available) to identify projects which the jurisdiction had approved and/or reviewing project characteristics (such as proposed lighting typology) against the portal to identify relevant projects. When public access portals were unavailable, we had to review the jurisdiction-provided datasets against the project documentation itself when it became available. We discuss online document availability under "Preliminary Data Collection" below. During this process, the data lead assigned unique internal identifiers to each project to assist with tracking them across workflows and with data integration.

Reviewing jurisdiction-provided datasets was particularly challenging in jurisdictions that bifurcate their cannabis regulatory systems between land use entitlement and local cannabis business licensing components. In these cases, we needed to make requests to multiple local agencies and then cross-reference the datasets together. In Santa Cruz, staff withheld much of the identifiable information required for cross-referencing their datasets, so we also needed to triangulate that information with state cannabis licensing data.

Mendocino and Trinity presented unique challenges in this regard. Because these jurisdictions employed regulatory systems largely dependent on ministerial review, they generated very little formal documentation for such projects and tracked only scant data in their internal systems. We relied largely on extensive, ongoing conversations with jurisdiction staff in order to identify locally compliant cannabis cultivation projects relevant to our study.

While depending on jurisdictions themselves to identify approved commercial cannabis cultivation projects pertinent to our research is a significant limitation, we contend this approach is more appropriate than the alternatives. Given the diverse local cannabis regulatory systems which our study jurisdictions adopted, it would not have been possible to capture the full universe of local cannabis approvals by examining public notices and/or hearing agendas and minutes alone, as many projects were not subject to this type of public review. Furthermore, while we could have begun with state cannabis licensing or SWRCB cannabis registrations to identify potential projects, we are primarily concerned with local regulatory processes and how they interface with state requirements in turn; this approach would have functioned in the opposite direction of our research goals. Our chosen approach allowed us to compile reasonably complete project inventories while focusing on the local-scale, and our interactions with jurisdictions assisted us in better understanding how they apply their local regulations to projects.

Our review of the jurisdiction-provided datasets resulted in a refined list of locally approved commercial cannabis cultivation projects likely to satisfy our definition of a

valid observation for each jurisdiction. We refer to this result as the "initial project list," which served as a guide for preliminary data collection in each jurisdiction.

3. Preliminary Data Collection

We use the term "preliminary data collection" to describe the process in which the research team collected documentation associated with projects from our initial project lists and then extracted relevant textual information from that documentation into a structured template for subsequent review, coding, and analysis. We took an intentionally over-inclusive approach to preliminary data collection, examining as many projects from the initial project lists as possible, even if they might have been outside our temporal scope or did not strictly adhere to our working definition of a valid observation. This approach allowed us to attain a comprehensive understanding of each jurisdiction's regulatory landscape at the micro-scale, and it provided us with the flexibility to refine our definitions and data-based methods as needed over time. In other words, during preliminary data collection we compiled information for more commercial cannabis cultivation projects that ultimately ended up in our final observation list (which we refined through the project data coding workflow described below). Due to its high volume of observations and consistently strong data availability, Humboldt served as our test case and model for this process. Therefore, we discuss the general contours of this process relative to Humboldt now and address jurisdiction-specific considerations later in this section.

Using the initial project list, the data lead queried the jurisdiction's public access portal to assess the types of documents available and the information they contained. Then, using the planning code summary as a guide, the data lead developed a preliminary data collection template that enumerated variables for which textual information would be gathered from each observation's documentation. These variables are grouped into four general categories.

1. Locational and land use/zoning data. These variables indicate where project proponents are siting commercial cannabis cultivation projects as a function of local land use regulation and how this use fits into a jurisdiction's wider land use planning schema.
2. Proposed project characteristics. These variables describe more specifically the nature of the proposed project itself and include the size and lighting typology, proposed water and energy sources for cannabis agriculture, and environmental constraints (such as the presence of steep slopes or prime agricultural soils). These variables speak to the type, scale, and potential impacts of commercial cannabis cultivation allowed by a jurisdiction's land use regulations. They also

represent regulatory areas frequently mentioned in the literature and planning code summaries.

3. Local land use review procedures and approvals. These variables describe the land use actions and other approvals that an observation requires to achieve local compliance, including information about hearings, decision-makers, dated milestones, and administrative appeals. These variables speak to the stringency of a jurisdiction's regulatory framework and allow for the quantification of project review timeframes.
4. CEQA determinations. These variables describe the environmental review mechanisms which the jurisdiction applied to the project.

To assist with the preliminary data collection process, the data lead developed a data dictionary in conjunction with the template explaining each variable's meaning and enumerating key associated terms. The data lead also developed an instruction manual that described how to navigate the jurisdiction's public access portal to retrieve an inventory of relevant project documents (including staff reports, approval letters, environmental documents, and hearing agendas and minutes) and where in the project documentation data collectors could find relevant information. Where possible, data collectors copied textual information directly from the documents and pasted it into the data collection template. This reduced the need for data collectors to exercise independent judgment in interpreting the information and preserved substantial narrative and textual evidence helpful for later data coding.

Both student researchers and core team members assisted with preliminary data collection for Humboldt's observations. However, because observations vary considerably in complexity, the data lead vetted each observation by briefly reviewing its available documentation in the public access portal, assigning more straightforward observations to students, and reserving more complex cases for data collection by core team members. Student researchers attended a training session during which the research team introduced them to the preliminary data collection template and associated materials. The data lead demonstrated the preliminary data collection process, and students also practiced with hands-on examples. Following the training session, the data lead assigned a small group of observations (fewer than ten) to each student, and the students then attempted the preliminary data collection process on their own. The data lead provided thorough feedback on these initial assignments, and students made necessary corrections. Once a student demonstrated adequate proficiency with the preliminary data collection process, the data lead assigned them additional observations (in batches of approximately 20 to 40) to complete on their own. If students demonstrated a particularly strong facility for data collection, we gradually increased the complexity of the observations assigned to them. As a quality control

measure, we assigned all observations designated for data collection by students to two individuals independently.

Core team members also received training in preliminary data collection and its associated materials, including demonstrations from the data lead and hands-on examples. Thereafter, core team members met weekly to discuss the preliminary data collection process and address any questions or issues. Observations designated for data collection by core team members were assigned only once.

Preliminary data collection in other jurisdictions with searchable public access portals and consistent online document availability (Monterey, San Luis Obispo, and discretionary observations in Sonoma) proceeded in a similar manner, with data collectors receiving assigned observations through their preliminary data collection templates, retrieving project documentation from the portals, and extracting textual information from the documents and entering it into the template. To the extent possible, we strove to keep the preliminary data collection template as consistent as possible across jurisdictions, but we adjusted the variables, data dictionaries, and instruction manuals as necessary to reflect an individual jurisdiction's particular circumstances and processes. When we encountered critical gaps in the project documentation for a given observation (such as a missing staff report or terms and conditions of approval), we filed Public Records Act requests to acquire the missing documents and revised the preliminary data collection upon receipt.

However, we had to alter our preliminary data collection workflows for other jurisdictions where document availability was less robust. Some jurisdictions only inconsistently uploaded project documentation to their portals (Nevada), while others used websites or other online applications not readily searchable by unique project identifiers (Lake and Santa Cruz). In these cases, we gathered all online documentation we could on our own, corresponded extensively with jurisdiction staff (either informally or through Public Records Act requests) to fill in documentation gaps, reorganized and inventoried those documents upon receipt, and only then could we proceed with data collection. For jurisdictions relying wholly or substantially on ministerial review processes (Mendocino, Sonoma, Trinity, and Yolo), we found virtually no documentation online and had to rely on our correspondence with jurisdiction staff to acquire what little documentation was prepared for such projects. For jurisdictions utilizing a local cannabis business license process (Monterey, Santa Barbara, and Santa Cruz), we found this process to be particularly opaque and had to acquire all documents associated with it through Public Records Act requests. Due to these challenges, we were rarely able to complete preliminary data collection in a linear manner from start to finish for a given jurisdiction. Instead, we worked on multiple jurisdictions simultaneously, collecting what data we could as sufficient documentation became

available and revising data collection as necessary over time. Additionally, because jurisdictions diverged so significantly in the volume, types, and quality of documentation prepared, the quantity of variables for which we could collect adequate data varies considerably across observations and jurisdictions.

After the research team had completed preliminary data collection for all observations in a jurisdiction, we subjected this preliminary data to quality control procedures. These procedures differed by whether student researchers or core team members collected the data. As described above, we assigned all observations independently to two individuals for student-collected data. Core team members then compiled this duplicated data collection and reviewed all variables for each observation against one another to assess consistency. Where two students agreed on a particular variable for an observation, we considered the data accurate and retained the more detailed information in the reviewed template. When two students collected contradictory or divergent information for the same variable, we considered this a possible error, and the reviewer referenced the project documents and made any necessary corrections to the reviewed template.

For preliminary data collection performed by core team members, we employed a sampling process for quality control. We pulled a random sample of observations for each jurisdiction, and then core team members compared the preliminary data collection results for the sampled observations against the project documentation. When the reviewer detected an error, the reviewer made the necessary corrections in the reviewed template; the reviewer also tracked errors in a spreadsheet so that the team could assess the error rate by variable, observation, and overall, in the sample. We adjusted the size of the random sample and the allowable rate of error in the sample according to the total number of observations in a jurisdiction. For jurisdictions with thirty or more observations, we reviewed a 20 percent sample with an allowable error rate of five percent (indicative of a one percent average error rate overall). We generated a 50 percent sample (with a 2% allowable error rate) for jurisdictions with fewer than 30 observations, and we reviewed all observations for jurisdictions with ten or fewer observations. If the error rate in a sample exceeded the allowable threshold, we generated another sample and repeated the quality control process until we achieved the allowable sample error rate.

4. Project Data Coding

The product of the preliminary data collection process was a dataset of rich narrative and textual information for each observation addressing project characteristics and broad variables relevant to understanding how local commercial cannabis cultivation regulations function at the project scale. However, this data is unstructured

and not machine-readable or appropriate for quantitative analysis. We use the term "project data coding" to describe the systematic process "of reducing [this] data to meaningful and credible concepts which adequately represent the data and address the research problem, purpose, or question(s)" (Adu, 2018). In other words, through project data coding, the research team manually transformed the rich textual information from preliminary data collection into smaller, discrete variables assigned consistent coded values based on prescribed rules and logics.

To facilitate the project data coding process, we developed two integral methodological tools: a codebook and a data coding template. For every variable in the coding structure, the codebook provides a description of the variable, an indication of the variable's data type (text, numeric, date, et cetera), and, where applicable, a list of predetermined values or "codes" that can be assigned to that variable and the codes' meanings. The codebook also provides rules to assist data coders in assigning the appropriate code to each variable according to the textual information in the source data, as well as explanations on how jurisdiction-specific considerations may alter the coding logic for a particular variable. The data lead was primarily responsible for drafting the codebook, which occurred in parallel with preliminary data collection and incrementally as we learned more about each jurisdiction's regulatory framework and how it is applied in practice. The codebook also served as a medium for collaboratively documenting methods decisions made throughout the project data coding process.

The coding template is a highly formatted spreadsheet which provides for each observation a field corresponding to each variable outlined in the codebook. Data coders carried the textual information from preliminary data collection into the coding template and then parsed the information across the relevant variables according to the codebook rules. For variables requiring the selection of a coded value, the coding template provided available codes consistent with the codebook in a dropdown menu, and, as a quality control measure, prevented data coders from entering any values into these variables other than those prescribed by the codebook. The data lead ensured the coding template's functionality—and its consistency with the codebook—by test coding a subset of observations from each jurisdiction, adding variables and codes as necessary to accommodate the complexity of project data across jurisdictions.

Only core team members participated in project data coding. Before formally starting the coding process, they participated in a weeklong series of hands-on training workshops with the data lead in which they were oriented to the codebook and coding template. The data lead demonstrated work examples during the workshops at varying degrees of complexity; core team members also practiced project data coding on their own and reviewed their results together during the workshops. Once the coding work began, core team members also met weekly to discuss the coding process and address

emergent questions or issues, collaboratively adjusting the codebook as needed. Due to their large volume, Humboldt observations were assigned across all members of the core team; the data lead completed project data coding for observations in all other jurisdictions. When data coders identified issues or contradictions in the preliminary data collection, they reviewed the project documentation as necessary, corrected the source data, and coded with the corrected information.

Once core team members had completed project data coding for all assigned observations, the data lead compiled all coded data into a single database. As an initial round of quality control, the data lead corrected any obvious coding errors while compiling the data and resolved any comments left by the data coders in their templates (such as feedback about missing coded values or ambiguous text descriptions not adequately addressed by the codebook). The data lead also addressed known problematic variables, implemented coding structure changes that had occurred since observations were initially assigned, and flagged noticeably complex observations for more intensive review. As another initial quality control measure, the data lead also ran the compiled data by jurisdiction through a Python program to identify obvious errors or violations of coding logic based on summary statistics for each variable group, correcting any detected errors as they arose (for example, a coded value representing a zoning designation not applicable in the given jurisdiction). Finally, we subjected the coded data from each jurisdiction to the same sample-based quality control protocol described previously, with core team members comparing the coded values for a subset of observations against the source data, making necessary corrections, tracking the level of error, and pulling additional samples until reaching the allowable error rate.

While we took an over-inclusive approach to preliminary data collection, we refined our universe of valid observations through the project data coding process to create what we refer to as the “final observation list.” We eliminated observations that lacked all required approvals for local compliance (such as a pending local cannabis business license), removed projects that achieved full local compliance outside the study’s temporal scope, and excluded projects not meeting our definition of a valid observation according to the “pathways” framework discussed previously. As a result, we excluded from project data coding all ministerial projects in Sonoma and all Yolo projects, as these jurisdictions have not yet determined a procedure for complying with the site-specific CEQA review required for state cannabis licensing.

5. Terms and Conditions of Approval (TCOA) Coding

In addition to collecting and coding the project data described above, our research questions also require analysis of the terms and conditions of approval (TCOA) imposed on approved commercial cannabis cultivation projects by the review

authority. TCOA can be generic reassertions of the local law applicable to cannabis cultivation or development generally, or they can be additional rules crafted by the decisionmaker through the discretionary review process to ensure that a project in its specific parameters will comply with local regulations. During preliminary data collection, we compiled TCOA for each observation from three sources as applicable to each jurisdiction's regulatory system: (1) the listing of TCOA specifically enumerated in the observation's approval documents; (2) the mitigation measures identified in a project-specific CEQA document prepared for an observation (such as a Mitigated Negative Declaration); and (3) the Compliance Agreement, Compliance Plan, or Transition Plan (in Humboldt, Mendocino, and Nevada, respectively) which identifies code violations on the project site which the applicant is obliged to cure within a given time period following project approval, as applicable.

To systematically summarize and analyze TCOA across observations and jurisdictions, the research team needed to develop a qualitative coding structure for grouping similar TCOA. As with preliminary data collection, this was an iterative and emergent process that began with Humboldt as a test case. Using the qualitative data analysis software, MaxQDA 2022 (Release 22.6.1), the data lead selected a small but diverse sample of Humboldt observations and manually classified similar TCOA *based on what they regulate and/or what responsibilities they impose on the applicant*. The data lead reworked these groupings continuously as we examined more observations and TCOA formulations, tracking in spreadsheets sample verbiage for each grouping and any emergent patterns. After examining a critical mass of Humboldt observations (about several dozen), the data lead began incorporating samples of observations from other jurisdictions, augmenting, and reclassifying the groupings to accommodate the very different (and often voluminous) TCOA used by different jurisdictions.

This process resulted in a qualitative TCOA coding structure broken down into ten general, thematic categories: (1) cannabis-specific activities; (2) environment, wildlife, and natural resources; (3) fees and taxes; (4) fire-related conditions; (5) lighting, energy, and noise; (6) permitting procedures, inspections, and compliance; (7) project design; (8) roadways and access; (9) water-related conditions; (10) workplace, operations, and performance standards. Within each of these thematic categories are numerous subcategories or "codes" which describe what a TCOA imposes on the project. For every TCOA associated with an observation, we assigned at least one code, grouping it together with other TCOA functioning similarly. If a TCOA regulates multiple aspects of the project, it may be assigned multiple codes and is therefore counted more than once. Table 4 outlines the thematic categories and provides an example code for each.

In addition to coding each TCOA by what or how it regulates, we also code each TCOA as generic or site-specific, meaning every code in the structure potentially has two dispositions or versions. We consider a TCOA to be site-specific *if the condition itself incorporates or references specific information about the project's characteristics or site conditions which dictate why the reviewer imposed the TCOA on the project.* In other words, the TCOA itself contains evidence that the reviewer analyzed information specific to the project and imposed the TCOA to address that particular circumstance. The evidence necessary to determine that a TCOA is site-specific can include explicit references to deficiencies or violations on the project site to be remedied; references to other reports, surveys, or regulatory documents prepared specifically for the project (such as an approved environmental remediation plan); references to specific proper noun places (such as street names) requiring improvements or interventions; or alterations to standard regulations that reflect the project's specific parameters (such as an increased or decreased setback from a waterbody). Because we code TCOA at such a micro-scale, we can readily detect when a condition is identical to others (and therefore likely generic) or when slight changes in verbiage may be indicative of site-specificity. Table 4 also provides generic and site-specific TCOA formulations for an example code under each thematic category.

Table 4: TCOA THEMATIC CATEGORIES WITH EXAMPLE CODES AND GENERIC AND SITE-SPECIFIC CONDITIONS

THEMATIC CATEGORY	GENERIC CONDITION	SITE-SPECIFIC CONDITION	SITE-SPECIFIC EXPLANATION
CANNABIS-SPECIFIC ACTIVITIES	*EXAMPLE CODE: COMMERCIAL BUILDING REQUIRED FOR PROCESSING*		
	Structures used for trimming and/or packaging must comply with the building code and its companion codes as a commercial building, complying with accessibility standards. Permits shall be secured within the time frame for a provisional permit.	The existing shop as it is currently constructed cannot be used for trimming and/or packaging on an on-going basis. These types of activities must take place in a F1 Occupancy Type commercial structure with an accessible restroom and accessible parking. The owner must secure permits and complete any improvement of the structure within the 2-year provisional period. Alternatively, the operator may discontinue this use and process at an off-site licensed third-party facility.	The TCOA implies that the applicant indeed proposes onsite cannabis processing. It references a specific existing building which the applicant must improve to initiate that proposed use.
ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	*EXAMPLE CODE: COMPLY WITH TIMBER CONVERSION PLANS*		
	Comply with the terms of a less-than-3-acre conversion exemption or timberland conversion	The Applicant shall agree to institute the identified Timber Conversion Report mitigation measures relating to the 2.48	The TCOA both references a report specifically drafted for the project site, as well as the particular site conditions

Table 4: TCOA THEMATIC CATEGORIES WITH EXAMPLE CODES AND GENERIC AND SITE-SPECIFIC CONDITIONS

THEMATIC CATEGORY	GENERIC CONDITION	SITE-SPECIFIC CONDITION	SITE-SPECIFIC EXPLANATION
	permit, approved by the California Department of Forestry and Fire Protection (CAL-FIRE), if applicable.	acres of historic timberland conversions identified in the less than 3-acre conversion mitigation report and provide documentation to the County that these measures have been met.	(historic illicit timber conversions) necessitating inclusion of the TCOA.
FEES AND TAXES	*EXAMPLE CODE: PAY TRAFFIC IMPACT FEES*		
	All traffic mitigation fees shall be paid prior to commencement of the operation.	Applicant shall pay traffic fees based on the latest fee schedule adopted by the Nevada County Board of Supervisors, in the amount of .48 ADT times the non-residential trip rate for local and regional traffic impacts.	The TCOA incorporates information specific to the project (an anticipated numerical increase in non-residential traffic) that determine the fee the applicant must pay.
FIRE-RELATED CONDITIONS	*EXAMPLE CODE: FIRE CLEARANCE AREA, DEFENSIBLE SPACE, AND FUEL MODIFICATION*		
	This project is subject to the findings and requirements of the Nevada County Fire Planner regarding fuel modification alongside roadways…	The length of Refuge Road to the subject parcel shall have all tree branches extending over the roadway limbed to create a minimum of fifteen (15) feet of vertical clearance and ensure that a minimum of ten (10) feet of vegetative clearance is maintained on either side of the roadway.	The TCOA references a specific roadway used to access the project site that requires improvement to meet fire regulations.
LIGHTING, ENERGY, AND NOISE	*EXAMPLE CODE: EQUIPMENT AND AMBIENT NOISE STANDARDS*		
	No equipment or process shall be used for the operation that generates noise in excess of the Noise Standards in the Nevada County Land Use and Development Code (LUDC) Section L-II 4.1.7.	The greenhouse will include two 42” fans, one 24” gable fan and several internal air circulation fans all shown to operate within County Noise limits by the Environmental Noise Assessment prepared by Saxelby Acoustics. No equipment or process shall be used for the operation that generates noise in excess of the Noise Standards in the Nevada County Land Use and Development Code (LUDC) Section L-II 4.1.7.	The TCOA references specific proposed equipment, as well as a site-specific report prepared for them, in imposing noise-related restrictions on the project.
PERMITTING PROCEDURES,	*EXAMPLE CODE: SECURE BUILDING PERMITS*		

Table 4: TCOA THEMATIC CATEGORIES WITH EXAMPLE CODES AND GENERIC AND SITE-SPECIFIC CONDITIONS

THEMATIC CATEGORY	GENERIC CONDITION	SITE-SPECIFIC CONDITION	SITE-SPECIFIC EXPLANATION
INSPECTIONS, AND COMPLIANCE	The applicant shall secure permits for all existing and proposed structures related to the cannabis cultivation and other commercial cannabis activity. A letter or similar communication from the Building Division verifying that all structures and grading related to cannabis cultivation are permitted will satisfy this condition.	The applicant shall secure permits for all existing structures related to the cannabis cultivation and other commercial cannabis activity including but not limited to the greenhouses, dry barn, and storage structure. A letter or similar communication from the Building Division verifying that all structures and grading related to cannabis cultivation are permitted will satisfy this condition.	The TCOA enumerates specific structures on the project site that are noncompliant and require permitting.
PROJECT DESIGN	*EXAMPLE CODE: AGRICULTURAL STRUCTURE STANDARDS*		
	Greenhouses shall be constructed without impervious floors in accordance with Humboldt County Code section 314-43.1.3.	The applicant shall remove all impervious flooring from greenhouses.	The TCOA implies that (1) there are already greenhouses onsite and that (2) they are in violation of local regulations by having impervious floors. The TCOA imposes an affirmative responsibility to remedy the deficiency.
ROADWAYS AND ACCESS	*EXAMPLE CODE: REMOVE OBSTRUCTIONS FROM RIGHT-OF-WAY*		
	All fences and gates shall be relocated out of the County right of way. All gates shall be setback sufficiently from the County road so that vehicles will not block traffic when staging to open or close the gate. In addition, no materials shall be stored or placed in the County right of way. This condition shall be completed to the satisfaction of the Department of Public Works prior to commencing operations, final sign-off for a building permit, or Public Works approval for a business license.	All fences and gates shall be relocated out of the County right of way. All gates shall be setback sufficiently from Mattole Road so that vehicles will not block traffic when staging to open/close the gate. In addition, no materials shall be stored or placed in the County right of way. All driveways and private road intersections on the County Road shall also be maintained in accordance with County Code Section 341-1 (Sight Visibility Ordinance). The applicant shall submit photos demonstrating that the work has been completed and the requirement will be satisfied upon the confirmation by Public Works that the County right of way is clear and that the intersection(s) comply with the Sight Visibility Ordinance.	The TCOA identifies a specific roadway at which site improvements are needed. The requirement to document this improvement implies there are present obstructions necessitating inclusion of the TCOA rather than this TCOA being a generic instruction to follow local regulations.
WATER-RELATED CONDITIONS	*EXAMPLE CODE: SECURE LAKE AND STREAMBED ALTERATION AGREEMENT*		
	Comply with the terms of any applicable Streambed	The applicant shall obtain and implement a Final Streambed	The TCOA requires the drafting of a regulatory

Table 4: TCOA THEMATIC CATEGORIES WITH EXAMPLE CODES AND GENERIC AND SITE-SPECIFIC CONDITIONS			
THEMATIC CATEGORY	**GENERIC CONDITION**	**SITE-SPECIFIC CONDITION**	**SITE-SPECIFIC EXPLANATION**
	Alteration (1600) Permit obtained from the California Department of Fish & Wildlife, if applicable.	Alteration Agreement from the California Department of Fish and Wildlife for the aspects of the project within the CDFW jurisdiction (for example, but not limited to: off-stream pond outfall improvements, point(s) of diversion used for domestic use, etc.). The applicant shall provide a copy of the agreement to the Planning Department and adhere to and implement all requirements of the agreement. The applicant shall notify the Planning Department when the projects authorized by the final agreement are completed within five (5) business days.	document from a particular state agency due to specifically-enumerated site conditions.
WORKPLACE, OPERATIONS, AND PERFORMANCE STANDARDS	*EXAMPLE CODE: FARMWORKER HOUSING*		
	On site-housing provided to employees shall comply with all applicable federal, state, and local laws and regulations.	Unless the existing residence has been removed or converted to storage or another non-residential use, the proposed caretaker residence shall be removed from the plan submittal for the second story of the processing building. Alternatively, the 2-bedroom unit shall be designated as agricultural employee housing and a Notice of Restriction for this use limitation shall be recorded on forms provided by the Planning Division.	The TCOA references existing site conditions and specific aspects of the project proposal in imposing restrictions related to farmworker housing,

We note that we do not reference the project data collected and coded for an observation in determining whether a TCOA is site-specific. (The inverse is also true; we do not code for project characteristics based on TCOA, as the prevalence of generic TCOA presents the risk of improperly assuming something about a project that may be untrue). This is an intentional methods decision which allows us to test whether the TCOA imposed on an observation reflect its project characteristics and vice versa. While this may cause us to overlook some TCOA that are site-specific but formulated in a generic way, we contend that the inclusion of project-specific information within the TCOA themselves is an indicator of and proxy for the thoroughness and rigor of regulatory and environmental review conducted by the jurisdictions.

As with project data coding, only core team members assisted with TCOA coding. They participated in a weeklong series of hands-on training workshops with the data lead in which they were oriented to the software and coding structure, with worked example demonstrations by the data lead as well as review of independently completed practice assignments. The data lead provided data coders with a standardized MaxQDA project file already populated with the coding structure to ensure consistency across coders, as well as a spreadsheet giving sample language for each code. Once the coding work began, core team members also met weekly to discuss the coding process, address emergent questions or issues, and collaboratively implement adjustments to the coding structure as needed. Humboldt observations were assigned across all members of the core team, while the data lead completed TCOA coding for observations in all other jurisdictions; this arrangement allowed the team to make measurable progress on Humboldt while allowing the data lead to make necessary coding structure adjustments to accommodate the nuances of each jurisdiction's approach.

Once core team members had completed TCOA coding for all assigned observations, the data lead merged all documents and coded segments into a master MaxQDA project file. As a quality control measure, the data lead reconciled areas where the coding structure had changed since observations were initially assigned and reviewed codes known as problematic from group discussion. The data lead also resolved all TCOA flagged by the data coders for further review and checked all site-specific determinations to ensure consistency across coders. We exported the results out of MaxQDA and aggregated the count of generic and site-specific TCOA for each observation at the thematic category level. This allows us to conduct quantitative analyses of both the number of TCOA applied and the percentage TCOA that are site-specific at various levels of aggregation and in relation to other categorical and quantitative variables in the master database.

6. Geographic Information Systems-Based Analyses

To compare TCOA to observable site characteristics, we also conducted Geographic Information Systems (GIS) -based spatial analysis to compile additional information about project sites. Where available, we downloaded spatial datasets representing parcel geometries from jurisdictions' open data portals. A graduate student researcher then matched the parcel geometries to our observations based on the unique Assessor Parcel Number (APN) identifier(s) associated with the observations as compiled through preliminary data collection. When we failed to achieve an initial match for an observation, the data lead conducted a more thorough review of the observation's staff report as well as site plans, assessor parcel maps, and jurisdiction web mapping

applications to identify alternate or revised APN values for isolating the necessary parcel geometries; we tracked all necessary adjustments through variables in the master database.

Two jurisdictions (Mendocino and San Luis Obispo) did not have publicly available parcel geometry spatial datasets. For these jurisdictions, we downloaded assessor parcel maps for relevant parcels and georeferenced them in the appropriate state plane coordinate reference system using United States Census Bureau (USCB) TIGER/Line roads shapefiles (US Census Bureau, 2022a) as reference datasets. We then manually digitized and extracted the parcel geometries associated with our observations.

Following Dillis et al. (2021), we used the compiled parcel geometries to calculate slope and hydrography characteristics for each observation. Using zonal statistics in Esri ArcGIS Pro 3.0.2, we calculated the mean and maximum slope (percent rise) per observation project site from slope rasters derived from digital elevation models (one-third arc second or ten-meter resolution) downloaded from the United States Geological Survey (USGS) National Elevation Dataset (US Geological Survey, 2023-a). We used features representing perennial, ephemeral, and intermittent watercourses from the National Hydrography Dataset (US Geological Survey, 2023-b) to calculate two additional variables per observation: a binary variable indicating whether a watercourse is present on a project site and a numeric variable describing watercourse density (the sum length of watercourses on a project site in feet divided by the total site acreage). We made all calculations in the Teale coordinate reference system, which is optimized for statewide mapping in California.

7. Data Integration and Analysis

After the research team completed all data-related workflows described above, the data lead integrated all components—coded project data, summarized TCOA data, GIS-based data, and summarized state-provided data—into a single master database using the unique internal identifiers assigned to each observation. We utilized Python scripts (within the Jupyter interactive programming environment) to calculate all derivative values (such as review timeframes) and to conduct all quantitative analyses discussed below. We also utilized the basic data analysis functionalities in MaxQDA to produce some summary statistics relevant to TCOA.

D. Limitations of Research Design

This study analyzed how land use law operates in eleven California jurisdictions relevant to commercial cannabis cultivation using a mixed-method approach. This approach allowed us to collect data from a variety of sources, including cannabis project

approval data from actual entitlement and permitting documentation jurisdictions prepared over three years, spatial data, and legal texts. The quantitative portion of this study relies on uniquely detailed information on individual cannabis cultivation development approvals. For example, we can analyze and compare how similar development (regarding farm size and pre-existing versus new operators) navigated approval processes within and across jurisdictions. The qualitative portion entailed drafting planning code summaries in each study jurisdiction. In sum, we can provide a detailed picture of each study jurisdiction's regulatory environment and offer some insight into which regulations most likely influence cannabis cultivation development outcomes.

As with any research, there are several limitations. First, the findings in each study jurisdiction, or the comparisons across jurisdictions, cannot necessarily be extrapolated to other California jurisdictions. As we discussed above, we encountered considerable variability in the regulatory systems adopted by our study jurisdictions. Throughout this report, we needed to build conceptual frameworks and define key terms in ways that emphasize similarities and differences across these jurisdictions to draw meaningful comparisons and identify critical patterns. This affects how we define an observation, and it is inherent in the project data and terms and conditions of approval (TCOA) coding structures. These methodological concepts help us to describe our empirical experience researching these jurisdictions, but jurisdictions not examined here would not necessarily fit cleanly into these paradigms.

Relatedly, we also note that we only examine county governments, as outdoor and mixed-light commercial cannabis cultivation is more likely to occur in the rural, unincorporated portions of California counties. We do not examine city governments, where we might see different political and regulatory dynamics. Also, we only studied California jurisdictions, where planning and land use systems are complex, local control is important, state, and local government interfaces uniquely in the cannabis regulatory space, and there is a long history of legacy cannabis cultivation. Our findings do not necessarily apply directly to cannabis regulation in other states, though research such as this contributes to the emerging body of cannabis literature which could influence cannabis policy development elsewhere as other states continue liberalizing their approaches to cannabis generally.

Second, our project is limited in temporal scope, including only outdoor and mixed-light commercial cannabis cultivation projects approved by local governments in 2018, 2019, and 2020, the years immediately following the establishment of California's adult-use cannabis regulatory system. Our quantitative analyses do not include projects approved in 2021, 2022, or 2023, though our legal discussions extend into these years when relevant to understanding how commercial cannabis regulatory systems function

in our study jurisdictions. We found from our legal research that local and state cannabis regulations evolved considerably during these subsequent years. Therefore, our quantitative analyses have a historical perspective and cannot necessarily speak to the most recent developments in this regulatory space.

Third, as discussed above, we defined an observation relative to its eligibility for annual state cannabis licensing. This requires that the observations comply with the CEQA review necessary for this licensing, so our database does not include projects that may have received a local entitlement, permit, or other authorization but did not complete the required environmental review. As a result, we excluded project data from some jurisdictions (Trinity and Yolo Counties) entirely, while we excluded considerable segments of projects in others (e.g., ministerial approvals in Sonoma County). These exclusions undoubtedly contain valuable and insightful information. However, we needed to adopt a framework for defining observations to treat projects across jurisdictions consistently and in a manner reflective of how commercial cannabis regulations function in California.

We also noted above that we relied in large part on our data requests and interactions with jurisdictions themselves in identifying potential observations. We may not have captured every possible observation in every jurisdiction, or we may have overlooked some projects when jurisdictions understood their cannabis regulatory systems differently than how we conceptualize them in our research. However, we identified over 700 observations in our jurisdictions during our study period and are confident that we captured a vast majority of potential projects that satisfied our definition of an observation.

Fourth, we only examine outdoor and mixed-light cannabis cultivation projects which our study jurisdictions *approved* during our study period. Our database does not include information about when and how jurisdictions *deny* proposals or why applicants may withdraw their applications during the application process (or even following approval). This line of inquiry could prove insightful in evaluating how local cannabis regulatory systems function and the challenges cultivators face navigating those systems. However, this is outside of our research's scope.

Fifth, we only collected and analyzed data for outdoor and mixed-light cannabis cultivation projects. We did not examine indoor cultivation or other cannabis-related projects that did not include an outdoor and/or mixed-light component. These activities are integral parts of the cannabis supply chain, and they come with their own impacts and complexities. However, our analyses and findings are not necessarily applicable to these uses.

Sixth, data availability and accessibility vary considerably across our study jurisdictions, and this limits our quantitative analyses. In some jurisdictions, we retrieved

nearly all required project documentation from online public access portals, while in others we had to rely almost entirely on informal or Public Records Act requests (and in some cases, still faced documentation gaps). Furthermore, when we receive project documentation, it can be of an inconsistent quality. This means that we cannot assign coded values for every variable to every database observation where sufficient textual information does not exist. (For example, Nevada County documentation rarely discusses the energy sources associated with cannabis cultivation projects). This also means we do not have complete approval timeframe, TCOA, or GIS-based information for every observation. When an analysis involves one of these data components (or some combination of them), we must exclude from that analysis observations without adequate data, and this affects our results. We are confident in our data's coverage. We were able to calculate approval timeframes for almost 90 percent of our observations, compile TCOA information for more than 80 percent, and build GIS-based representations for over 99 percent. We discuss limitations relative to data availability throughout this report as necessary to understand results and findings.

Seventh, as with any observational data, causal inferences can be drawn from the quantitative data only under strong assumptions or with a quasi-experimental research design, which we did not conduct for this report.

Eighth, we did not look at litigation challenging approved projects; however, we are aware of several approved projects in Santa Barbara and Humboldt currently being challenged in court.

Ninth, our research looked at the law as written and applied and did not conduct interviews with planning department staff or applicants. We have not analyzed the impacts of human error, staff turnover, or the human impact on local programs.

VI. Findings from Planning Code Summaries

A. There is little uniformity in how counties regulate outdoor and mixed-light cannabis cultivation.

1. Counties define key terms differently, and these terms also diverge from State definitions.

As cannabis is a new and emerging industry, no agreed-upon set of "industry standards" or nomenclature exists. As a result, understanding and comparing how counties apply their law can be challenging because counties do not define concepts similarly, and local terms sometimes diverge from State law definitions for the same terms. For example, the key terms "***outdoor,"*** "***mixed-light***," "***indoor***," "***light deprivation***," "***canopy***," "***premises***," and "***cultivation area***" vary across jurisdictions. Additionally, definitions regarding the size of a project, including whether a project is

"***small***" or "***large,***" vary across jurisdictions and do not always correspond with State definitions for small, medium, and large licenses.

2. Counties Adopt Different Names for Approval Processes that are Functionally Similar.

Generally, counties do not use the same types of permits to authorize outdoor or mixed-light cultivation or use the same terms to describe their local-level permits. Counties frequently use different terms for ministerial and discretionary approvals. For example, Trinity describes its discretionary approval pathway as a "Commercial Cannabis *License,*" whereas Nevada describes its functionally similar discretionary approval pathway as a "Commercial Cannabis *Permit*." The following sections discuss the different approval pathways and whether they are ministerial or discretionary.

3. Counties Have Varying Approval Pathways that Include a Land Use Entitlement, a Cannabis Business Permit, or a Hybrid Model Requiring Both a Land Use Entitlement and a Business Permit.

Some jurisdictions' regulatory frameworks include land use review and business licensing components, which may occur sequentially or in parallel. Thus, a single cannabis-related facility may include multiple businesses operating under a single land use entitlement or multiple local authorizations processed separately.

Overall, counties have a variety of approval pathways, ranging from (1) requiring a land use entitlement; (2) requiring a land use entitlement in addition to a local cannabis business license; (3) requiring a ministerial permit that is renewed annually; (4) requiring a hybrid discretionary and ministerial approval process, or (5) requiring a land use entitlement and an annual cannabis permit. Table 4 in the methods section outlines these different approval pathways. We discuss each county's approval mechanism below.

Humboldt

Humboldt has three land use entitlement pathways depending on the characteristics of the project, including size and location. These pathways are a Zoning Clearance Certificate, Special Permit, and Use Permit (Humboldt Cty. Code, Cal. § 312-2). A Zoning Clearance Certificate (ZCC) is a land use entitlement pathway available to outdoor or mixed-light commercial medical cannabis operators who can demonstrate the parcel meets zoning and cultivation size limits of the Commercial Medical Marijuana Land Use Ordinance (CMMLUO) (*MMLUO Frequently Asked Questions*, 2016). The administrative review is focused on whether the operation complies with all performance standards in the CMMLUO (*MMLUO Frequently Asked Questions*, 2016). No public hearing is required for a ZCC (*MMLUO Frequently Asked Questions*, 2016). A discretionary Special Permit is required for cultivation areas of a certain size to receive an exemption from the required setbacks. A discretionary Use Permit is required for

projects deemed to have the largest environmental risk due to size or location and is typically approved by the Planning Commission. A Use Permit is triggered based on the zoning, size,[61] location,[62] or type of soil used.[63]

Lake

Lake requires operators to obtain a land use entitlement. There are documented instances of multiple-use permits associated with the same project proponent on the same parcel. There are also documented instances of individually approved permits being subsequently consolidated into a later, larger-scale use permit approval.

Monterey

Monterey requires applicants first to obtain a land use entitlement: either an Administrative Permit or a Use Permit (Monterey Cty. Code, Chapter 21.67.050). This can be obtained by the property owner, not the business operator. In addition to a land use entitlement, all cultivators must obtain a Cannabis Business Permit ("CBP") from the Cannabis Program (Monterey Cty. Code Chapter 21.67.030(B)). The CBP is valid for one year and must be renewed annually by submitting a Renewal Application (Monterey Cty. Code Chapter 7.90.060(C)). In data review, we have discovered that in some instances, the land use entitlement is held by a property owner and Cannabis Business Permit is held by the cannabis operator. A backlog of entitled projects have not yet received business licenses. Also, because multiple businesses can operate on the same site under one entitlement, some facility components may be licensed while others are not.

Mendocino

Mendocino's outdoor medical cannabis program is based on a land use entitlement described as a Cannabis Cultivation Permit (Mendocino Cty. Code § 10A.17.030). Permits must be renewed annually for the cultivation site to remain operational (Mendocino Cty. Code § 10A.17.090).

Nevada

Nevada County requires both (1) a land use entitlement (described as a Commercial Cannabis Permit (Nevada Cty. Land Use & Development Code § L-II 3.30(G)(1)(a)) or Administrative Development Permit (Nevada Cty. Land Use & Development Code § L-II 3.30(G)(2))) and (2) uniquely, an Annual Cannabis Permit. The type of land use entitlement is dependent on the size of the farm (Nevada Cty. Land Use & Development Code § L-II 3.30(G)(1)(a)). The Annual Cannabis Permit is granted *after* the project proponent has acquired a state license.

[61] *See* Humboldt Cty. Code § 55.4.6.2.2(b).
[62] *See* Humboldt Cty. Code § 55.4.5.1.4(a).
[63] *See* Humboldt Cty. Code § 55.4.6.4.3.

Santa Barbara

Santa Barbara requires applicants to obtain a land use entitlement and a business license. A backlog of entitled projects have not yet received business licenses. Also, because multiple businesses can operate on the same site under one entitlement, some facility components may be licensed while others are not. There is also an unknown subset for entitled projects which are not eligible for business licenses under the County's current aggregate acreage cap. In Santa Barbara, obtaining a land use entitlement does not guarantee the issuance of a cannabis business license (City. of Santa Barbara Executive Office, n.d.).

Santa Cruz

Santa Cruz allows some cannabis cultivation projects "by right" if located within certain zoning districts and under certain circumstances, and all local review occurs through the cannabis business licensing process.

San Luis Obispo

San Luis Obispo requires outdoor commercial cannabis cultivators to obtain a land use permit. Minor Use Permits are required for all cannabis cultivation. However, under certain circumstances, a Conditional Use Permit may be required.

Sonoma

Sonoma may require a discretionary use permit issued by Permit Sonoma or a ministerial agricultural permit (with corresponding annual renewals) issued by the Agriculture Department. The permit type depends on the zoning district, cultivation area, and lighting typology. Multiple project proponents can hold agricultural permits on the same parcel.

Trinity

Trinity requires all cultivators to obtain an annual Cannabis Cultivation License issued by the Planning Director (Trinity Cty. Code Chapter 17.43.020(A)). Medium projects over 10,000 square feet and nurseries require a Conditional Use Permit granted by the Planning Commission (Trinity Cty. Code Chapter 17.43.040(B)(1)(b)). Cultivators may need a Variance issued by the Planning Commission to reduce the required setbacks (Trinity Cty. Code Chapter 17.43.050(A)(8)). They may also request a Director's Use Permit issued by the Planning Director to obtain an exemption from the legal dwelling requirement (Trinity Cty. Code Chapter 17.30.020).

Yolo

Yolo's initial commercial cannabis program was based entirely on ministerial licenses and annual renewals without direct connection to zoning districts or land use designations. However, the cannabis program has been completely rescinded, discussed below.

B. Counties Utilize Discretionary and Ministerial Approval Processes to Authorize Commercial Cannabis Cultivation.

Study counties have developed land use approvals for cannabis cultivation, requiring both discretionary and ministerial review. Some counties have an entirely discretionary application process. Other counties have both a ministerial and discretionary application process depending on the type of project. Mendocino County and Yolo have an entirely ministerial application process.

1. Nevada, Santa Cruz, Santa Barbara, Sonoma and Humboldt Have a Ministerial and Discretionary Permitting Process Depending on the Type of Project.

Nevada

Nevada County's commercial cannabis regulations require the issuance of two different land use authorization types for outdoor and mixed-light cultivation depending on canopy area: Commercial Cannabis Permits or Administrative Development Permits. Additionally, a project must also possess an Annual Cannabis Permit which must be renewed annually. Commercial Cannabis Permits authorize outdoor and mixed-light cannabis cultivation projects with up to 2,500 sf of canopy area (Nevada County Code Sec. L-II 3.30(G)(1)(a)). Nevada County's commercial cannabis ordinances do not specifically state whether CCPs are ministerial or discretionary, but they have been described as ministerial in a Planning Commission Staff Report.[64] Administrative Development Permits authorize outdoor and mixed-light cannabis cultivation projects greater than 2,500 sf in canopy area and up to 10,000 sf (Nevada County Code Sec. L-II 3.30(G)(2)). The County considers ADPs discretionary; they are approved administratively and are subject to appeal to the Board of Supervisors. They are also associated with site-specific terms and conditions of approval, Transition Plans, CEQA determinations, and other discretionary actions (such as Management Plans and setback easements).

Santa Cruz

Santa Cruz County generally applies a discretionary review process for permitting cannabis cultivation. Still, it has created a ministerial "By-Right " permitting process that only applies to projects with existing structures in Commercial Agriculture Zones. The County's Board of Supervisors ("BOS") amended the County's cannabis program and created this ministerial carve-out on June 30, 2020, to implement a "more efficient," licensing program to "avoid a threat to public peace, health, and safety caused by potentially unsafe conditions of unlicensed cannabis operations…and pending losses of State licenses by local operators" (Cty. of Santa Cruz, 2020). Districts zoned as

[64] *See* https://www.nevadacountyca.gov/DocumentCenter/View/27167/ORD18-2-EIR18-0001-Cannabis-PC-SR, page 11.

Commercial Agriculture (CA) within Santa Cruz County can obtain approval for cannabis cultivation through a "by-right" permitting process. The County passed an urgency ordinance to allow the updated regulations to go into effect immediately - with the amendments no longer requiring operators to get a Conditional Use Permit for cannabis cultivation in existing greenhouses or hoop houses on parcels zoned CA. The BOS Stated the amendments were aimed at addressing the challenges the program has encountered through the strenuous process of obtaining a Conditional Use Permit. The County still employs "strict discretionary land use requirements for cultivation operations…outside of the CA zone district" (Cty. of Santa Cruz, 2020).

Santa Barbara

Santa Barbara County has a ministerial permitting process for Land Use Permits and a discretionary permitting process for Conditional Use Permits. Whether an applicant receives a Land Use Permit or Conditional Use Permit depends on license type and proximity to nearby sensitive receptors.[65] The County also has a ministerial process for issuing a commercial Cannabis Business License, which operators are required to obtain regardless of what type of land use entitlement they receive. To obtain a Business License, operators must: 1) have an approved land use entitlement, 2) submit a complete cannabis business license application, and 3) pay all required cannabis business licensing fees/deposits (Santa Barbara Cty. Code § 50-7(a)(2)(i)(A)).

Sonoma

Sonoma County issues three different types of use permits to cannabis cultivators - both ministerial and discretionary - depending on the type and size of the cannabis operation (Sonoma Cty. Code § 26-88-250, Tables 1A-D). Sonoma County's Zoning Permit is considered a ministerial permit and is automatically issued once it can be verified through a site visit that the operation meets all the development criteria and operating standards proscribed in the county code (County of Sonoma, n.d.a). Depending on the Zoning designation, Zoning Permits are required for grows 10,000 square feet and under for outdoor cultivation sites and 2,500 square feet and under for Mixed Light grows (Sonoma Cty. Code § 26-88-250, Tables 1A-D). The County's Minor Use Permit is discretionary and is subject to public notification, environmental review, and a determination of compatibility with the neighborhood. After public notice, if no request for a hearing is received, County staff may approve the permit administratively and may add conditions to address any issues. Minor Use Permits are required for Outdoor and Mixed Light Cottage grows in the Resources Rural Development zoning designation (Sonoma Cty. Code § 26-88-250, Tables 1A-D). The County also has a Conditional Use Permit, which is discretionary and subject to public notification,

[65] Cultivation on lots zoned AGII located adjacent to an "Existing Developed Rural Neighborhood", or "Urban-Rural" boundary are required to obtain approval in the form of a Conditional Use Permit.

environmental review, and a public hearing before the Board of Zoning Adjustments (Cty. of Santa Barbara, n.d.-b). Depending on the Zoning designation, Conditional Use permits are required for grows 5,000 square feet and up for outdoor cultivation sites and 2,501 square feet and up for Mixed Light grows (Sonoma Cty. Code § 26-88-250, Tables 1A-D).

Humboldt

Humboldt has a "ministerial" permitting process for Zoning Clearance Certificates issued according to its Commercial Medical Marijuana Land Use Ordinance (CMMLUO, also known as "Ordinance 1.0"). The process is described as ministerial in a FAQ issued by the Planning Director, which explains: "The Zoning Clearance Certificate ("ZCC") is a ministerial (i.e., non-discretionary) pathway to securing a land use entitlement to conduct an outdoor or mixed-light commercial medical cannabis operation provided the parcel meets zoning and cultivation size limits of the CMMLUO" (Cty. of Humboldt Planning & Building Department [HPBD], 2016). However, with the inclusion of compliance agreements, site-specific terms, and conditions, and CEQA documentation, these land use actions seem to function more like administratively approved discretionary permits used in other jurisdictions. Humboldt also has a discretionary permitting process for Special Permits and Conditional Use Permits.

2. Lake, Monterey, San Luis Obispo, and Trinity Adopted a Discretionary Permitting Process

Lake

Lake County's commercial cannabis program requires the issuance of two different discretionary land use entitlement types for cannabis cultivation depending on the proposed state cultivation license type (which dictates canopy size and lighting typology) and zoning district: Minor Use Permits or Major Use Permits.

Monterey

Monterey County's commercial cannabis program requires the issuance of two different discretionary land use entitlement types for mixed-light cannabis cultivation depending on project circumstances: Administrative Permits or Use Permits. Originally, a Use Permit was required for all projects, after 2018, the process was changed to require an Administrative Permit for all projects. However, projects located on farmland that utilize over 50% of the lot are required to obtain Use Permit.

San Luis Obispo

San Luis Obispo County's commercial cannabis regulations require the issuance of two discretionary land use entitlement types: Minor Use Permits (MUP) or Conditional Use Permits (CUP). The entitlement type is dictated by the cannabis-related uses onsite and whether the operation has a history of cannabis-related code violations.

Trinity

Trinity has two discretionary approval pathways including a Conditional Use Permit ("CUP") approved by the Planning Commission for projects between 10,000 sq. ft. and one acre (Trinity Cty. Code Chapter 17.43.040(B)(1)(b)), and a Cannabis Cultivation License approved by the Planning Director for projects less than 10,000 sq. ft. (Trinity Cty. Code Chapter 17.43.040(A)). Additionally, if a project requires an exemption from the legal dwelling unit requirement (discussed below) applicants must obtain a discretionary Director's Use Permit from the Planning Director (Cty. of Trinity Community Development Services [TCDS], n.d.). If an applicant requires a reduction in setbacks from residential structures on adjoining parcels or property lines, they must obtain a discretionary variance from the Planning Commission (Trinity Cty. Code Chapter 17.43.050(A)(8)).

3. Mendocino and Yolo Have an Entirely Ministerial Permitting Program

Mendocino's program for outdoor projects is ministerial. Cultivators must obtain a Commercial Cannabis Cultivation Permit which must be renewed annually. The County considers CCCPs to be ministerial,[66] and they are only subject to standard terms listed on the permit certificate (in addition to a Compliance Plan, if applicable). Yolo County's original commercial cannabis regulations authorize cannabis cultivation projects through the issuance of annual, ministerial Cannabis Cultivation Licenses (CCL).

C. Counties take different approaches in allowing existing medical cannabis cultivators to continue operating while they complete their local application process.

Each county has a different process for transitioning existing medical cannabis operators into the regulated market. Many counties have issued cultivators a temporary permit or affidavit authorizing them to engage in cannabis while completing their land use application process. As cannabis cultivation is an existing industry transitioning into a regulated market, our review of local regulation suggests the local governments prioritized creating a pathway for existing cultivators to continue operating while completing their land use entitlement application. Following the State, which allowed existing operators to obtain a Temporary State license enabling them to continue operating while they complete their local land use application process, local governments enacted local approval processes enabling cultivators to operate, construct greenhouses or structures, and build out their cannabis site before receiving a

[66] Mendocino Cannabis Program Manager Kristin Nevedal states during a video recorded Cannabis Program Information Session on 6/1/21 that "Chapter 10A.17 is a ministerial permit program" (*See* https://www.youtube.com/watch?v=5559O6O2Bkg&t=637s).

land use entitlement. We illustrate varied local approaches to allowing existing cultivators to operate while applying for licenses and entitlements below.

1. **Nevada County Allowed Cultivators to Operate with a Temporary Medical Commercial Cannabis Permit before Passing the County's Final Cannabis Ordinance.**

Five months after the State began issuing Temporary licenses to cultivators, Nevada County had not yet adopted its commercial cannabis ordinance. Nevada County was concerned its existing cultivators would fall behind and be ineligible to receive future State licenses, so the Nevada County Board of Supervisors passed an urgency ordinance designed to offer "a path toward compliance for those who wish to enter the regulated market." Nevada County's ordinance created an application process for cultivators to obtain a "Temporary Medical Commercial Cannabis Permit" ("Temporary Permit") (Cty. of Nevada BOS, 2017). A Temporary Permit allowed cultivators to operate for medical purposes and obtain a state license. To obtain a Temporary Permit, cultivators had to apply; comply with cultivation area size limitations, setbacks, and all other requirements in the County's interim cannabis cultivation ordinance; obtain a temporary State license; complete an on-site inspection; and apply for permits to correct existing code violations on the parcel (Cty. of Nevada BOS, 2017). Nevada County's denial, suspension, or revocation of a Temporary Permit could not be appealed; the County argued that appeals were inconsistent with the need to issue Temporary Permits quickly (Cty. of Nevada Office of The Cty. Council, 2018).

2. **Santa Barbara Allowed Existing Cultivators to Operate Under an Affidavit Before Submitting a Land Use Application.**

In response to the passage of the MMRSA in 2015, Santa Barbara County's Board of Supervisors adopted Ordinance No. 4954, creating a limited exemption for medical marijuana cultivators, known as "legal nonconforming operators," to continue cultivating while they await approval to grow commercially in the County (S.B. Cty. Code, Chapter 35, Article X, § 35-1003(C)(2)). Legal nonconforming operators can utilize this exemption so long as they were in operation before January 2016 and fully complied with state laws. The Board of Supervisors ("BOS") required existing operators to sign a one-page affidavit, under penalty of perjury, stating: (1) the operator's individual or corporate name; (2) that they had been cultivating medical cannabis before January 19, 2016; and the (3) the street address and APN of the site. An example of the affidavit is included in Appendix B. Operators submitted the affidavit to the State to demonstrate "local authorization" to be eligible to receive a State Temporary license.

In 2019 the Santa Barbara County Civil Grand Jury received multiple requests for an investigation into the actions of the BOS surrounding the creation and passage of the County's cannabis ordinances ("Santa Barbara County Grand Jury Report: Cannabis,"

2020, p. 1). The Grand Jury began an investigation and released its findings in June 2020. The affidavit system adopted by the BOS was heavily criticized, as the Grand Jury found "[w]ithout question, one of the most perplexing decisions made by the Board was the utilization of an unverified affidavit system to qualify applicants who claimed to be existing medical cannabis growers and thus eligible to apply for licenses to continue to grow cannabis" ("Santa Barbara County Grand Jury Report: Cannabis," 2020, p. 1). The Grand Jury noted that one of the "major and obvious flaw[s]" was the lack of any required "verification as to the veracity of whether the applicant had indeed been growing cannabis as of January 19, 2016" … a concern previously noted by the Planning Commission who had "recommended a process that included a public hearing wherein the applicant could prove their affidavit was truthful" ("Santa Barbara County Grand Jury Report: Cannabis," 2020, p. 14). The report also noted that because of the absence of a verified benchmark, cultivators who had been growing cannabis previously were likely encouraged to expand their acreage beyond what was in the ground on January 19, 2016.

Several of the Santa Barbara County Superior Court cases against "legal nonconforming operators" are based on allegations defendants committed perjury by lying about their "legal non-conforming" status in the affidavits (Magnoli, 2020). As of January 2020, 270 acres of cannabis were being cultivated in the County, with 199 acres cultivated by "legal nonconforming" operators. As "legal nonconforming" operators do not have a land use entitlement or business license, they may not comply with local regulations (Magnoli, 2020). The only real deadline for "legal nonconforming" operators to stop operating is the expiration of State stacked Provisional licenses, starting in 2023 (Magnoli, 2020).

Santa Barbara's cannabis program is further complicated by an acreage cap that the BOS passed after the affidavit process was created. In 2021, the business license acreage cap was reached and has resulted in many of these preexisting, "legal non-conforming" cultivators not receiving a business license, despite having operated under a State Provisional license, receiving a land use entitlement, and building out their site for cannabis operations. These cultivators are not eligible to receive an Annual license unless they have final local approval and cannot obtain final local approval without receiving a business license from the County. Thus, once their State Provisional license expires, they will be ineligible for an Annual license and need to stop operating.

3. Humboldt Allowed Existing Cultivators to Operate with an Interim Permit While Completing Their Land Use Application.

Humboldt allowed pre-existing cultivators to operate under an "Interim Permit" if they could provide evidence that the cultivation site existed before January 1, 2016, and submitted a complete application to the County before July 14, 2017 (Humboldt Cty.

Code § 55.4.8.11). Interim Permits require a Cannabis Compliance Agreement where cultivators agree to cure any code violations within two years of receiving an Interim Permit (Humboldt Cty. Code, Cal., § 55.4.6.5.7). Potential violations could include unpermitted greenhouses and buildings, unauthorized timber conversion, and unpermitted grading (Humboldt Cty. Code § 55.4.6.5.7). Interim Permit holders were authorized to seek a State Temporary and Provisional license and continue operating while their land use entitlement application is processed by the County.

4. **Monterey Allowed Businesses to Operate After Obtaining a Land Use Entitlement, but before Obtaining a Cannabis Business Permit.**

Monterey operators have a two-step process to receive local authorization. The property owner must obtain a land use entitlement, and the Operator must obtain a Cannabis Business Permit ("CBP"). The land use entitlement must be "cleared" meaning that the entitlement has been approved and any conditions applied to that approval have been satisfied (Cty. of Monterey BOS, 2023). Operators are allowed to operate while working to meet the land use and CBP requirements and obtain a state temporary or provisional license (Cty. of Monterey BOS, 2023). Common challenges for applicants to obtain both land use entitlement and CBPs are water system requirements and financial obstacles related to traffic impact fees, and the installation of fire suppression systems required for processing buildings (discussed below) (Cty. of Monterey BOS, 2023).

5. **Mendocino Allowed Existing Cultivators to Operate After Submitting a Land Use Application.**

Mendocino allowed pre-existing cultivators who could demonstrate they were in operation before January 1, 2016, to submit a permit application for an "embossed application receipt" issued by the Agricultural Commissioner that would allow them to continue to operate. The embossed application receipt functioned as a "provisional permit" (*Borges v. Cty. of Mendocino*, 2022). The County required cultivators to post the embossed receipt at their site to demonstrate to the Mendocino County Sheriff that the cultivator had submitted a permit application and was working toward compliance. An image of an embossed receipt posted on a cultivation site is included in Appendix C. As of June 1, 2021, Mendocino had issued 878 embossed receipts as outlined in Table 5 (Cty. of Mendocino Cannabis Department [MCD], 2021-a). Cultivators provided copies of embossed receipts to the State to demonstrate "local authorization" when applying for a State Temporary or Provisional License (MCD, 2021-b).

Table 5: EMBOSSED RECEIPTS ISSUED BY COUNTY BETWEEN 2017-2021	
YEAR	**NUMBER OF EMBOSSED RECEIPTS ISSUED BY MENDOCINO**
2017	293
2018	338
2019	237
2020	5
2021	5
TOTAL NUMBER OF EMBOSSED RECEIPTS	**878**

D. Counties have different regulations for pre-existing "legacy" cultivators versus new applicants.

Some counties have created a separate application and permit process for pre-existing operators (sometimes called "legacy" operators) and new cultivators. This creates several variations of different approaches within each jurisdiction applicable to the same permit type.

Humboldt adopted its first commercial cannabis ordinance, the Commercial Medical Marijuana Land Use Ordinance, described as "Ordinance 1.0" on September 13, 2016, to regulate medical cannabis operations in the county (Humboldt Cty. Code §§ 313-55, 314-55). Ordinance 1.0 governs pre-existing cannabis operators who applied for land use permits before December 31, 2016, and new operators (Humboldt Cty. Code § 55.4.3.1). Two years later, on May 8, 2018, the Humboldt County Board of Supervisors adopted the Commercial Cannabis Land Use Ordinance, referred to as "Ordinance 2.0," which amended Ordinance 1.0 to encompass regulations for commercial cultivation of adult-use cannabis, in addition to medical. Pre-existing operators who applied for permits under Ordinance 1.0 could operate under Interim Permits. In contrast, new applicants who applied under Ordinance 2.0 are not permitted to start operating until they receive a Zoning Clearance Certificate, Special Use, or Use Permit.

New operators in several counties, including Santa Barbara, Trinity, and Yolo, cannot obtain a land use entitlement or permit because the county has reached its permit or acreage cap and is not issuing new permits. Yolo County previously had a licensing moratorium for new applicants, and only 78 qualified applicants who registered with the Central Valley Regional Water Quality Board ("CVRWQB") by December 31, 2017, were eligible to apply and obtain a permit in 2018 (Cty. of Yolo, n.d.). After Yolo

County repealed and replaced its cannabis ordinance in September 2021, the license cap was brought down to 65 (Yolo Cty. Cannabis Land Use Ordinance § 8-2.1406(G)), and the county created a new process to transition the existing applicants into compliance with the new ordinance (Yolo Cty. Cannabis Land Use Ordinance § 8-2.1404(B)). If any of the existing cultivators don't apply under the new ordinance in 2022, then those Existing Licensees will be precluded from license renewal in 2023, and their license allocation will be returned to the pool of available licenses (Yolo Cty. Cannabis Land Use Ordinance § 8-2.1404(B)). Yolo will open the application process to new applicants for those open spots (if any) at a date not yet determined by the county. Therefore, there will be very limited, if any, opportunities for new cultivators in Yolo.

On April 4, 2017, Mendocino adopted its Medical Cannabis Cultivation Ordinance ("MCCO") No. 4381, enacting Chapter 10A.17 of the Mendocino County Code. Chapter 10A.17 sets forth three successive phases of regulation (Mendocino Cty. Code § 10A.17.080(A)). Under Phase One of the ordinance, Mendocino only issued permits to applicants who could provide proof of prior cultivation—or that cannabis cultivation occurred on the proposed site before January 1, 2016 ("proof of prior cultivation") (*Id*. at § 10A.17.080(B)(1)(a)-(b)). The Phase One application period was only available to outdoor and mixed-light cultivators and closed on October 4, 2019 (MCD, n.d.). The Phase Two application period is open to (1) indoor cultivators and, (2) mixed-light cultivators where cultivation occurs in a greenhouse equipped with filtered ventilation systems in limited industrial zoning districts (Mendocino Cty. Code § 10A.17.080(A)). For Phase Two applicants, proof of prior cultivation is not required (Mendocino Cty. Code § 10A.17.080(A)). Phase Three was intended to open the application process to all new applicants (*Id*. at § 10A.17.080(A)(3)). Phase Three was slated to commence on April 1, 2021. However, the application period has not opened due to difficulties in passing a new ordinance adopting the terms of Phase 3 applicants. As such, Mendocino has a moratorium on new outdoor cultivation applications currently.

Santa Barbara has a different application process for existing operators who once held a State Temporary license versus new operators who have not operated a cannabis business in the county. Before operating, new businesses must obtain both their land use entitlement (either a Coastal Development Permit or Conditional Use Permit) and then apply for and obtain a State Annual license. In contrast, existing operators who held a State Temporary license can continue to operate while they complete their land use entitlement and business license application process. After an existing operator obtains their annual business license, they can transition their State Provisional license to an Annual license. Appendix D describes the different application processes for existing versus new operators in Santa Barbara.

E. State CEQA review has posed major obstacles to county efforts to create cannabis regulatory systems, and counties have taken divergent approaches to managing CEQA review.

Each study county has prepared different CEQA documents for their cannabis ordinance and, in some counties, prepared different CEQA documents for different cannabis-related ordinances.[67] There appear to be four different CEQA compliance pathways that counties have utilized when adopting a cannabis ordinance. A few counties changed their approach to CEQA (Yolo and Trinity) after their original CEQA approach was challenged or litigated. Key question counties must address in managing CEQA review is the tradeoff between doing an early, programmatic CEQA review for enacting a county ordinance for cannabis versus deferring most CEQA review to individual projects. Each county had to decide whether to pursue a programmatic environmental review, and they all took a slightly varying approach. A county can develop a regulatory program more expeditiously by avoiding the time, effort, and cost of performing a programmatic environmental review on an ordinance. In counties that prepared a PEIR for their ordinance, the process took several years of public meetings and was expensive. However, the time gained in not preparing a programmatic CEQA document may be lost as additional time will be needed after an ordinance is adopted to conduct an environmental review on each application. Such a process can be burdensome and cost prohibitive for small farmers to pay discretionary permit and environmental review fees.

1. Humboldt, Nevada, and Santa Barbara Certified a PEIR.

Humboldt, Nevada, Santa Barbara certified a Program Environmental Impact Report ("PEIR") for their cannabis program because their ordinances were deemed to have a significant impact on the environment. Preparing a Program EIR, while the most intensive CEQA compliance pathway, can allow for "***tiering***" for future discretionary project approvals or possible ministerial approvals for individual projects. With tiering, a Program EIR can expedite the CEQA review of discretionary approvals for individual proposed developments, provided that underlying conditions have not changed since the preparation of the Program EIR (Cal. Code Regs. Tit. 14, § 15168). If all the issues have been evaluated in a previous EIR, then no further study is required. If some of the relevant environmental conditions have changed since the prior EIR, then the lead agency can prepare a Supplemental EIR, which only needs to contain information necessary to make the original EIR adequate (Cal. Code Regs. Tit. 14, § 15163). This

[67] Some counties have taken different approaches to CEQA for their medical cannabis ordinance and their adult-use cannabis ordinance. For instance, Humboldt County adopted a MND for their medical cannabis ordinance, the Commercial Medical Marijuana Land Use Ordinance ("CMMLUO"), and a PEIR for their adult-use ordinance, the Commercial Cannabis Land Use Ordinance ("CCLUO").

process can reduce costs for individual applicants, which may be particularly helpful for small cultivators. Humboldt has the largest number of individual permit holders and very complicated environmental issues. Therefore, it may have been faster for the County to analyze the impacts in one PEIR rather than address cumulative impacts on an individual project basis for thousands of projects.

2. Yolo Adopted a Ministerial Ordinance with No CEQA Action, Followed by an EIR.

Yolo County's CEQA compliance has been a convoluted process, partly because of continued uncertainty about its regulatory process and litigation. In November 2017, the Yolo County Board of Supervisors adopted the County's initial cannabis ordinance as an interim measure "to address neighbor complaints and limit harmful environmental impacts" (Cty. of Yolo, n.d.). Yolo County adopted a cannabis ordinance for ministerial approvals and took no CEQA action concerning the ordinance. Yolo County's initial ordinance did not require applicants to participate in any site-specific environmental review process, nor did the ordinance exempt operators from any CEQA requirements via the State statutory exemption according to Cal. Bus. & Prof. Code § 26055(h). Yolo initially had 78 operators who had submitted timely applications and were eligible for annual local ministerial permits,[68] however, none of these operators could obtain state Annual Licenses because the county's ordinance was incompatible with environmental review requirements under CEQA. The County later repealed and replaced its entire cannabis ordinance by passing the Cannabis Land Use Ordinance (CLUO) on September 14, 2021, and certified the ordinance's Final EIR (Yolo Cty. Cannabis Land Use Ordinance, § 8-2.1401)**.** Existing Licensees must apply for a new use permit between March 1, 2022, and December 16, 2022. New licensees may apply for available use permits or licenses (if any) after the processing of existing licensees is substantially underway on a date that has yet to be determined (Yolo Cty. Cannabis Land Use Ordinance § 8-2.1404). The Yocha Dehe Wintun Nation partnered with the Yolo County Farm Bureau, Sierra Club, and the citizen's group Voices for Responsible Leadership in a lawsuit against Yolo County, the Yolo County Board of Supervisors and Yolo County Community Services challenging the county's EIR (Dobson, 2021).

3. Humboldt Adopted an MND for its Medical Cannabis Ordinance and Certified a PEIR for Its Commercial Cannabis Ordinance.

Humboldt adopted a medical cannabis ordinance in 2016 and a commercial cannabis ordinance in 2018. The medical ordinance ("Commercial Medical Marijuana Land Use Ordinance" or CMMLUO) was passed before the passage of Proposition 64 and was associated with a Mitigated Negative Declaration (Cty. of Humboldt Planning

[68] Yolo County limited potential cannabis operators to those who had filed both a Notice of Intent with the Central Valley Regional Water Quality Board by October 11, 2016, and had submitted an initial cannabis cultivation license application by December 31, 2017.

and Building Department [HPBD], 2015). The medical cannabis ordinance sought to establish local-level regulation consistent with the MMRSA (HPBD, 2015). The MND "applies regulations to an existing unregulated land use to help prevent and reduce environmental impacts known to result from unpermitted baseline cultivation operations" (HPBD, 2015). When first enacted, the CMMLUO only permitted medical cannabis but was amended in 2017 to include adult-use cannabis to respond to the passage of the AUMA and the MAUCRSA (Humboldt Cty. Medical Marijuana Land Use Code, § 314-55.3.2-3).[69] The Humboldt-Marijuana Advocacy Project ("HUMMAP") sued Humboldt County to block the environmental damage that the ordinance could potentially cause (*HUMMAP v. Cty. of Humboldt*, 2016). On July 5, 2016, the Board of Supervisors signed a settlement agreement with HUMMAP agreeing to prepare an Environmental Impact Report for all future cannabis matters (Cty. of Humboldt BOS, 2016). Two years later, Humboldt passed its Commercial Cannabis Land Use Ordinance with a PEIR. The purpose of the commercial land use ordinance was to establish legal commercial (in addition to medical) cannabis activities and expand upon the existing regulations set forth under the Commercial Medical Marijuana Land Use Ordinance (CMMLUO) (HPBD, 2018).

4. Monterey and Mendocino Adopted a Programmatic Mitigated Negative Declaration for Its Ordinance.

Monterey has a unique approach in that multiple parties from the cannabis industry took the initiative to prepare and fund a draft Programmatic Initial Study to analyze 45 project sites (Cty. of Monterey BOS, 2020). County staff reviewed and edited the draft Initial Study to reflect the county's independent judgment and presented it to the Board of Supervisors. Ultimately, Monterey conducted a Programmatic Initial Study (Cty. of Monterey Resource Management Agency [RMA], 2020-a) and MND (RMA, 2020-b). To streamline the environmental review of the existing facilities, the County evaluated all 45 project sites within one initial programmatic study. The 45 proposed project sites contain existing greenhouses that were previously used for various agricultural production, including herbs, crops, and cut flowers (RMA, 2020-b). The project did not require demolition or construction of new facilities, as the cannabis operations would use existing greenhouses or buildings. Before adopting the IS/MND in 2020, Monterey had approved 13 applications since the program was created in 2016. Each of those applications was found categorically exempt from the CEQA (Cty. of Monterey BOS, 2020). However, staff determined that there was potential for cumulative impacts that warranted evaluation (Cty. of Monterey BOS, 2020). Forty-five cannabis applicants agreed to fund the preparation of technical reports and an IS to

[69] Humboldt County, Ordinance 2588, Adopted November 14, 2017.

examine the cumulative impacts of cultivation sites outside Salinas, including a few additional sites (Cty. of Monterey BOS, 2020).

Mendocino adopted a Programmatic Mitigated Negative Declaration ("MND") after conducting an Initial Study (14 C.C.R. § 15063(a)) for their medical cannabis program and drafted ordinances with requirements that would mitigate the potential environmental impacts associated with their ordinances (and related local approvals) to bring potential impacts below a level of significance.

5. Lake, Trinity, Sonoma, Santa Cruz, and San Luis Obispo Relied on the MAUCRSA Statutory CEQA Exemption by Requiring Discretionary Review of Individual Projects.

Trinity, Sonoma, Santa Cruz, and San Luis Obispo counties applied a statutory CEQA exemption to their ordinance as it was adopted before July 1, 2019, and the ordinance requires a discretionary permit that is subject to CEQA review, pursuant to Cal. Bus. & Prof. Code § 26055(h). Sonoma, Santa Cruz, and San Luis Obispo conducted environmental reviews for individual projects and prepared environmental documents on a project-specific basis. Depending on the project, approval timeframes could be lengthy, and the costs of environmental review were incurred by the applicants themselves, rather than the county. Trinity County was supposed to conduct an environmental review of its discretionary approvals but failed to conduct the necessary analysis for some permits and was sued. Trinity also provided Categorical Exemptions for projects that were later challenged because the county did not conduct a cumulative impacts assessment for those projects. In 2020, Trinity reversed course and prepared a PEIR. Trinity's process is discussed further in Section VI(B)(1) below.

Each county's CEQA document for their cannabis ordinance is described in Table 6.

Table 6: STUDY COUNTIES APPLICATION OF CEQA TO THEIR CANNABIS CULTIVATION ORDINANCE(S)			
COUNTY	**PROGRAM ENVIRONMENTAL IMPACT REPORT (PEIR)**	**PROGRAM MITIGATED NEGATIVE DECLARATION (MND)**	**STATUTORY CEQA EXEMPTION CONTAINED IN CAL. BUS. PROF. CODE § 26055(h)**
HUMBOLDT	**January 2018**: Board of Supervisors certified a Final Environmental Impact Report for the Amendments to Humboldt County Code Regulating ***Commercial*** Cannabis Activities (SCH# 2017042022).	**January 2016**: Board of Supervisors adopted a Mitigated Negative Declaration for Medical Marijuana Land Use Ordinance – Phase IV – Commercial Cultivation of Cannabis for ***Medical*** Use. NOD was filed on January 28, 2016.	N/A
LAKE	N/A	N/A	**December 2020:** County relies on State statutory exemption when passing Ordinance No. 3100, stating "the Board of Supervisors independently finds and determines that this action is exempt from CEQA pursuant to Business and Professions Code § 26055(h) for the adoption of an ordinance, rule, or regulation by a local jurisdiction that requires discretionary review and approval of permits, licenses, or other authorizations to engage in commercial cannabis activity."
MENDOCINO	N/A	**November 2016**: Board of Supervisors adopted a Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Program for the County of Mendocino Medical Cannabis Cultivation Regulation (SCH# 2016112028).	N/A
MONTEREY	N/A	**June 2020:** Board of Supervisors adopted a Programmatic Mitigated Negative Declaration for Multiple Cannabis Cultivation Facilities in Unincorporated Monterey County (SCH# 2020060325).	The ordinance was found statutorily exempt from CEQA (Business and Professions Code Section 26055(h), with the caveat that individual permits are themselves subject to CEQA (Cty. of Monterey BOS, 2020).
NEVADA	**May 2019:** Board of Supervisors certified a Final Environmental Impact Report for the Nevada County Commercial Cannabis Cultivation Ordinance on May 14, 2019 (SCH# 2018082023)	N/A	N/A
SANTA BARBARA	**December 2017**: Final Environmental Impact Report for the Cannabis Land Use Ordinance and Licensing Program (SCH# 2017071016).	N/A	N/A

Table 6: STUDY COUNTIES APPLICATION OF CEQA TO THEIR CANNABIS CULTIVATION ORDINANCE(S)			
COUNTY	**PROGRAM ENVIRONMENTAL IMPACT REPORT (PEIR)**	**PROGRAM MITIGATED NEGATIVE DECLARATION (MND)**	**STATUTORY CEQA EXEMPTION CONTAINED IN CAL. BUS. PROF. CODE § 26055(h)**
SANTA CRUZ	N/A	N/A	**June 2020:** County relies on State statutory exemption when passing Ordinance No. 5334 stating that the "ordinance is not subject to the CEQA pursuant to Business and Professions Code section 26055(h)."
SAN LUIS OBISPO	N/A	N/A	**November 2017:** County relies on State statutory exemption when passing Ordinance No. 3358 (which replaced and repealed the Interim/Urgency Ordinance No. 3334) stating that the "amendments are exempt from the CEQA pursuant to Section 26055(h) of the California Business and Professions."
SONOMA	N/A	NA	**October 2018**: County relies on State statutory exemption when passing Resolution 18-0442 finding that their cannabis ordinance is "exempt from the CEQA pursuant to Business and Professions Code Section 26055(h), because the Ordinance provides for a discretionary review and approval process, including CEQA review, of permits to engage in commercial cannabis activity."
TRINITY	**December 2020**: Board of Supervisors certified the Final Environmental Impact Report for the Trinity County Cannabis Program on December 21, 2020 (SCH# 2018122049). NOD was filed on December 28, 2020.	N/A	**February 2019:** County relies on State statutory exemption when passing Ordinance No. 315-843 stating that "the County finds that this Ordinance is exempt from the CEQA pursuant to Business and Professions Code section 26055(h)."
YOLO	**September 2021**: Board of Supervisors certified the Final Environmental Impact Report (SCH# 2018082055).	N/A	N/A

F. CEQA created significant issues for counties establishing regulatory programs.

In several counties, the CEQA review process was a major obstacle in establishing a functioning regulatory process. In some counties, the entire regulatory process had to be redone, and projects that appeared to be fully approved had to proceed through additional CEQA review.

1. The MAUCRSA Statutory CEQA Exemption Led to Complications in Trinity County.

The MAUCRSA created a statutory exemption from CEQA review for local cannabis ordinances, creating a discretionary application process (BPC § 26055(h)). Although CEQA review of the ordinance itself is not required, each permit, license, or authorization granted by a local government pursuant to the ordinance requires environmental review (BPC § 26055(h)).

On October 3, 2017, Trinity County enacted cultivation ordinance No. 315-823, which requires the discretionary review of projects by the Planning Director and found that the ordinance is exempt from CEQA according to California Business and Professional Code § 26055(h) because of its discretionary review for individual licenses (Cty. of Trinity BOS, 2017). On February 6, 2018, the county amended its cannabis ordinance, again asserting that statutory CEQA exemption applies because the ordinance requires discretionary review for individual licenses (Cty. of Trinity BOS, 2018).

In January 2019, a lawsuit filed against the county by the Trinity Action Association alleged that the county failed to perform an environmental review when issuing discretionary commercial cannabis licenses pursuant to the ordinance (*Trinity Action Assoc. v. Cty. of Trinity*, 2019, p. 9). The petitioner argued that the county had not undertaken or completed any "license specific or cumulative CEQA review as required by CEQA before approving and renewing, and after that issuing commercial cannabis licenses. The lawsuit sought to compel the county to perform its mandatory statutory duties pursuant to CEQA by (1) recognizing that its license approvals are subject to CEQA, and (2) performing an environmental review for each project.

The lawsuit was settled, and Trinity agreed to conduct an environmental review of each individual project and was ordered to pay attorney's fees to the petitioner ("Attorney Fees Due County to Pay TAA $337,000," 2022). The settlement agreement stipulates that the county may not renew Commercial Cannabis Licenses unless it completes a site-specific CEQA review for each license.

In 2020, the Trinity County Board of Supervisors approved the Trinity County Cannabis Program to regulate commercial cannabis operations in the county's unincorporated area. The County prepared an Environmental Impact Report (EIR)

(State Clearinghouse #2018122049) for the Cannabis Program that evaluated the environmental impacts associated with commercial cannabis operations based on the assumptions in the Cannabis Program. The county created a site-specific Cannabis Program Environmental Checklist template ("Appendix C") (Cty. of Trinity Planning Dept., n.d.). The Appendix C template includes all mitigation measures that were adopted with the approval of the Trinity County Cannabis Program.

To renew an existing CCL, the County must review and approve Appendix C checklists for every license holder. The County has invalidated all CCLs while the Appendix C forms are being reviewed and approved, and cultivators are not allowed to operate while their CCL is invalid. As of May 3, 2022, approximately 300-500 CCL holders are prohibited from operating, and their Appendix C checklists are under review by the County (Cty. of Trinity Planning Dept., 2021–2022). As of May 13, 2022, there is only one active license within the County.[70]

2. Litigation Influenced Counties Approach to CEQA.

CEQA litigation appears to have played a role in how Yolo developed its new cannabis ordinance and influenced Humboldt in adopting a PEIR for its Commercial Cannabis Land Use Ordinance. Litigation against Trinity resulted in the county adopting Appendix C CEQA checklists.[71] After legalization, as local jurisdictions developed their regulatory frameworks for cannabis cultivation, a wave of CEQA-related litigation ensued. In analyzing these lawsuits, we see trends in the claims made by various groups that use CEQA to bring complaints against both county officials and commercial cannabis operators across California.

Broadly, residential neighbors (*Trinity Action Assoc. v. Cty. of Trinity*, 2019), Native American tribes (*Yocha Dehe Wintun Nation v. Cty. of Yolo*, 2021), environmental groups (*Friends of the Eel River v. Cty. of Humboldt,* 2018), and existing agricultural industries including wineries (*SBCRBC, Inc. v. Cty. of Santa Barbara*, 2020) have brought lawsuits. Several counties have faced legal challenges to their ordinances or individual project approvals, including Trinity (*Trinity Action Association v. Cty. of Trinity*, 2019), Humboldt (*Friends of the Eel River v. Cty. of Humboldt,* 2018), and Santa Barbara (*SBCRBC, Inc. v. Cty. of Santa Barbara*, 2020).

An example of the kinds of lawsuits that have been brought is a suit filed in April 2020 by the Santa Barbara Coalition for Responsible Cannabis, Inc., a nonprofit group of farmers, vintners, and county residents. The plaintiffs filed a "multi-faceted" lawsuit

[70] This was confirmed to us via a Public Records Act request response from County of Trinity County Counsel, Prentice Long PC; Supplemental PRA Request, Dated April 15, 2022 (May 13, 2022).

[71] On January 3, 2019, the Trinity Action Association ("TAA"), sued Trinity County, the Planning Director and unnamed cannabis licensees alleging violations of CEQA (Trinity Action Association v. County of Trinity, et al., Case No. 19CV001 (2019). While the county initially disputed some of TAA's allegations they ultimately settled the lawsuit in August 2019, agreeing to complete CEQA review for all new or renewed permits (*See* County, TAA reach settlement in lawsuit. (2019, August 14). *The Trinity Journal*. Retrieved June 26, 2023, from http://www.trinityjournal.com/news/marijuana/article_1a34f77e-be32-11e9-b99c-3bd6852123b3.html).

against the County of Santa Barbara and its Board of Supervisors while also naming as a defendant Sara Rotman, the owner of the 22-acre medicinal cannabis project *Busy Bee's Organics* (Santa Barbara Coalition for Responsible Cannabis, 2020). The lawsuit claimed the county's current cannabis ordinance and licensing program were flawed and that Santa Barbara's environmental review process under CEQA was inadequate. In May 2021, Santa Barbara County Superior Court Judge Thomas Anderle dismissed the lawsuit, holding that the county's environmental review and zoning permit for Busy Bee's Organics fully complied with state laws and county land use policies. The impact of the dismissal and what it might mean for other counties facing similar challenges remains unclear, as legal complaints about inadequate environmental review processes at the local level continue to develop in other counties.

A second example in Humboldt county began in April 2021 (only one month before the dismissal of the CEQA challenge in Santa Barbara) when Citizens for a Sustainable Humboldt (CSH) and the North Coast Environmental Center (NEC) filed a lawsuit in the Humboldt County Superior Court challenging the County's environmental review process and permits approved by the Humboldt County Board of Supervisors for an 8.5-acre cannabis project known as Rolling Meadow Ranch, LLC. CSH and NEC sought to compel the County to prepare an EIR to analyze and disclose impacts more fully and proposed feasible mitigation of the Rolling Meadows project. In November 2021, while the first lawsuit was still pending, plaintiffs claimed that Rolling Meadows had sought and obtained a grading permit, and filed a second lawsuit against Humboldt County, asking the court to issue an order vacating all post-approval project changes. The outcomes for both cases are still pending.

3. Mendocino's Ministerial Permitting Process Was Amended in Response to State Feedback to Include an "Appendix G" CEQA Checklist.

In March 2017, Mendocino's Board of Supervisors adopted a Program Initial Study/Mitigated Negative Declaration (SCH #2016112028) for Ordinance No. 4381, known as the "Mendocino Cannabis Cultivation Regulations" which added Chapters 10A.17 ("Chapter 10A.17") and 20.242 to the Mendocino County Code. Mendocino's Board of Supervisors and cannabis program staff asserted that Chapter 10A.17 created a ministerial application process for outdoor cannabis cultivators, requiring no CEQA review of permits. Permits were issued without any conditions of approval, except requiring applicants to execute an indemnification agreement, and do not require public notice or a public hearing. Mendocino had issued 266 ministerial permits by June 1, 2021, starting in 2018.[72] Ministerial permits last for 12 months and must be renewed each year by submitting a Renewal Application to the Cannabis Department, so

[72] 279 permits were approved but 13 permits were not issued (7 applicants failed to pay their fees, 5 permits were canceled because of the applicant passing away, and 1 permit was withdrawn by the applicant).

applicants who obtained a permit in 2018 were required to renew their permit in 2019, 2020, and 2021 to continue operating (Cty. of Mendocino Cannabis Department [MCD], 2022). On June 1, 2021, 48% of permits had expired and were not renewed.

In addition to permit holders, 878 cannabis cultivators have applied for a ministerial permit but have not yet had their applications approved and are still working through the application process. After applying, cultivators received an "embossed application receipt," as described above. The receipt allows cultivators to continue operating under a State Provisional license while working through their application process with the county.

Mendocino's ministerial cannabis program was developed prior to cannabis legalization and the promulgation of State regulations. As the DCC considers State-issued annual licenses as discretionary and require site-specific CEQA analysis, a ministerial local program does not relieve a project from the environmental review—even though ministerial approval processes normally don't require environmental review. In other words, if a local government has a ministerial program, state CEQA review is still required. Mendocino started issuing ministerial permits in 2018 before realizing in 2019 that their ministerial program did not relieve project proponents from completing an environmental review of their project. Upon realizing this, Mendocino negotiated a pathway to satisfy environmental review for ministerially approved projects with CDFA in 2020. The negotiations culminated in Mendocino creating a "Mendocino County Cannabis Cultivation Permit CEQA Guidelines Section 15168 Review Checklist," known as the "Appendix G Checklist" ("Appendix G"), finalized in early 2021 (Cty. of Mendocino, n.d.). Appendix G allows the County to evaluate a cultivation site and proposed activity to demonstrate that the environmental effects of the activity were evaluated and within the scope of the Program MND, in accordance with § 15168(c)(4) of the State CEQA Guidelines (MCD, 2021-b).

Mendocino permit holders are not eligible for State Annual licenses unless and until they complete the Appendix G site-specific CEQA checklist. Despite being issued a "final" permit from the County, they are still technically not "final" as their local approval does not entitle them to a state-issued Annual license. Instead, they must complete the Appendix G checklist to be eligible for an Annual license. The Appendix G checklist can involve substantial additional review for cultivators, including an analysis of sensitive species. Only a few cultivators have navigated the Appendix G process, and it remains to be seen how other cultivators will manage and proceed with the environmental checklist.

4. Yolo Completely Revoked Its Ministerial Permitting Process Due to Being Incompatible with Annual License Requirements.

Yolo's first ordinance imposed a ministerial process with no public notification or hearing process, which did not require cultivators to go through site-specific environmental review or CEQA compliance. Yolo's system was not compliant with state environmental review requirements under CEQA, and permit recipients could not obtain Annual licenses. In response, Yolo developed a new Cannabis Land Use Ordinance (CLUO), creating a discretionary conditional use permit application process. The environmental impacts of the CLUO were analyzed in a Final Environmental Impact Report (SCH #2018082055). Existing Licensees could apply for a new use permit between March 1, 2022, and December 16, 2022. New licensees may apply for available use permits/licenses (if any) after the processing of Existing Licensees is substantially underway (Yolo Cty. Cannabis Land Use Ordinance § 8-2.1404); the target date for new licensees to apply is currently October 15, 2023 (Cty. of Yolo BOS, 2022-a).

G. Local Ordinances Have Evolved at Different Paces

An issue that our analysis identified is the degree to which local ordinances are constantly changing and adapting in response to changing State requirements, local reactions to county ordinances, and litigation. The local process for obtaining, renewing, and maintaining permits to cultivate cannabis is not linear and is ever-changing. All study counties have amended or revoked their cannabis ordinances since 2017.

Although many of our study jurisdictions have not updated their general plans to include cannabis cultivation, others are amending their general plans. Humboldt County updated its General Plan Land Use Element in October 2017 to include cannabis cultivation (Cty. of Humboldt, 2017). Yolo's new CLUO will amend several policies of the County General Plan (Cty. of Yolo, 2021). Trinity County intends to update its General Plan by March 2024 to "satisfy compliance with statutory requirements, internal consistency, and inclusion of the recently established cannabis program" (Cty. of Yolo, 2021).

Since the passage of the MAUCRSA in 2017, State regulators have provided clarity on specific aspects of the policy contained in the statute by promulgating several sets of emergency[73] and permanent regulations.[74] The regulations have modified specific defined terms, such as "immature plant," have clarified definitions, such as "mixed-light" and "outdoor," have created the temporary licensure application structure, and have clarified what is acceptable evidence of exemption from or compliance with,

[73] The emergency regulations were adopted by CDFA in December 2017 and readopted in June 2018.
[74] The final regulations were adopted by CDFA on January 16, 2019.

CEQA, in addition to many other actions. Local regulation has evolved to adapt to these changes at the state level. Richard Parrott, the Director of the CalCannabis Cultivation Licensing Division, described the emergence of cannabis regulation as “people have said we are building the plane as we're flying, we're building the car as we are driving” (Lim, 2018).

A few counties, like Mendocino and Humboldt, were trailblazers who regulated cannabis before State action; other counties waited to regulate until the passage of the MMRSA in 2015, and the majority waited until the AUMA passed in 2016.

The counties that started regulating cannabis for medical use had to update their ordinances to include adult-use activity. For instance, Mendocino developed its ordinance before State action and found its ordinance incompatible with State environmental review requirements under CEQA.

Counties updated ordinances because of political conflicts over the compatibility of cannabis cultivation with other land uses and to facilitate the transition for pre-existing cultivators. For example, Humboldt’s original Medical Marijuana Land Use Ordinance led to land use conflicts between cultivation and residential uses on land suitable for agriculture. It led to the County adopting a second ordinance, the Commercial Cannabis Land Use Ordinance (Ordinance 2.0), which included provisions related to neighborhood compatibility, municipal spheres of influence,[75,] and removal of the requirement that large cultivation occurs on prime agricultural soil. To encourage new operators to enter the legal market after several years of regulation, a new program for small, “homestead” type operations was promulgated after Ordinance 2.0. The “RRR Program” (discussed below) resulted in license stacking at large facilities without discretionary review.

Santa Barbara’s cannabis ordinance included two separate acreage caps described in Table 7. In 2021, Santa Barbara County received enough business license applications (presumed to be complete) that the acreage cap for business licenses in the Unincorporated area had been fully committed (Cty. of Santa Barbara, n.d.c). No new business license applications will be accepted for the Unincorporated area unless an application currently on the eligibility list is withdrawn, denied, or abandoned. Applicants can be placed on a waitlist to obtain the next available permit if a permit is withdrawn, denied, or abandoned. To be placed on the waitlist, applicants must have an approved land use entitlement and must submit a notification to the County Executive Office of the desire to be placed on the waitlist. The County is now exploring introducing an amendment to free up unused land already authorized for cannabis use under the

[75] The California Association of Local Agency Formation Commissions defines a “sphere of influence” as a “planning boundary outside of an agency’s legal boundary (such as the city limit line) that designates the agency’s probable future boundary and service area. Factors considered in a sphere of influence review focus on the current and future land use, the current and future need and capacity for service, and any relevant communities of interest. With the passage of the CKH Act, spheres for all cities and special districts are reviewed every five years.”

acreage cap. This involves the potential for licensed cannabis operators to lose a portion of the acreage they secured under the cap if they fail to cultivate the total acreage, they applied for by their third license renewal (Hodgson, 2022). Growers would have three years to phase in the full acreage in their land use entitlements, and once that is reached would only be required to maintain 80% of that total. If they failed to reach their full acreage by their third license renewal, they could have the acreage they hadn't cultivated go back into the acreage cap to be offered to the next person in line on the capacity waiting list.

Other counties did revisions to respond to backlogs in the permitting process. Monterey's ordinance required a Conditional Use Permit for all cultivators until the backlog became too great, and the County responded by introducing an Administrative Permit pathway.

And as noted above, multiple counties faced problems with CEQA compliance and ultimately had to amend those programs. Yolo's original cannabis ordinance did not include a CEQA review and included a moratorium on new applications since 2017. In 2021, the Board of Supervisors invalidated the original program and adopted a new ordinance. Existing Licensees in good standing were eligible to apply for license renewal under the new ordinance between March 1, 2022, and December 16, 2022. Trinity relied on the State statutory CEQA exemption for its ordinance, which was challenged in litigation. As a result of the lawsuit settlement, the County has now invalidated all existing licenses. It requires applicants to complete an Appendix C checklist which, as of May 11, 2022, is under review by the County.

This constant flux of local ordinances and regulations reflects local dynamics, policy goals, and socioeconomic contexts but is also a natural consequence of local jurisdictions being tasked with developing their regulations for an industry that the government knows little about and with limited guidance from the State. The uncertainty surrounding the potential cost of obtaining a local permit or authorization is difficult for businesses that need to plan their budget and profit margins in advance of investing in development. As ordinances and State laws change, it becomes harder for operators to predict future expenses.

The regular changes to local programs add cost to the existing demands of meeting the substantive regulatory standards in local ordinances. Cultivators have argued that the cost to bring their property into compliance with local ordinances can be prohibitive, including upgrading buildings to meet disability access standards, constructing culverts for access roadways, and addressing previous environmental impacts (Bodwitch et al., 2021).

H. County Cannabis Ordinances Set Upper Limits for Cannabis Development

1. Permit and Acreage Caps Limit Legal Cannabis Cultivation.

Several counties cap the total cumulative acreage[76] of cannabis cultivation or the number of total permits[77] allowed in the county. Several counties restrict the number of permits[78] or total acreage[79] that can be issued to an applicant. Several counties have reached their permit or acreage cap and are not permitting new cultivation sites, resulting in prohibiting new operators from entering the legal market in that jurisdiction.[80] Humboldt's ordinance is unique in restricting commercial cannabis cultivation by total acreage per watershed (Humboldt Cty. Code § 314-55.4.6.8). Table 7 shows how local ordinances cap cultivation permits, acreage, and farm size.

[76] Humboldt caps cannabis acreage at 1,205 acres county-wide. Santa Barbara caps cannabis acreage at 1,575 acres in unincorporated Santa Barbara County and 186 acres in the Carpinteria Agricultural Overlay District.
[77] Trinity caps the number of cannabis cultivation permits that can be issued county-wide at 530 permits. It limits the number of medium cultivation sites that allow up to 1-acre of cannabis cultivation to 15 permits.
[78] Humboldt caps the total number of cannabis permits that may be issued to a person to 4-permits countywide under their Medical Marijuana Land Use Ordinance ("MMLUO").
[79] Humboldt caps the total acreage that may be issued to a person to 8-acres countywide under their Commercial Cannabis Land Use Ordinance ("CCLUO").
[80] Santa Barbara has two acreage caps: 1,575 acres in the unincorporated areas of the county and 186 acres in the Carpinteria Agricultural Overlay District. Santa Barbara has reached its acreage cap in the unincorporated areas of the county. Trinity county has reached its permit cap until it completes an audit of its current permittees.

Table 7: LOCAL ORDINANCES CAPPING CULTIVATION PERMITS, PERMIT ACREAGE OR FARM SIZE				
COUNTY	**CAP ON NUMBER OF POTENTIAL PERMITS ISSUED COUNTYWIDE**	**CAP ON ACREAGE ISSUED COUNTYWIDE**	**CAP ON NUMBER OF PERMITS ISSUED PER PERSON**	**CAP ON ACREAGE PER PERSON OR PARCEL**
HUMBOLDT	3,500 permits[81]	1,205 acres[82]	4 permits per person under the MMLUO[83]	Max 8 acres per person under the CCLUO[84]
LAKE	N/A	N/A	N/A	No Limit
MENDOCINO	N/A	N/A	2 permits per person on a single parcel[85]	Max 10,000 sq. ft. of canopy per legal parcel[86]
MONTEREY	N/A	N/A	No Limit	No Limit
NEVADA	N/A	N/A	Max 3 permits per person or entity[87]	10,000 sq. ft. of canopy per parcel[88]
SANTA BARBARA	N/A	1,575 acres in unincorporated; 186 acres in the Carpinteria Agricultural Overlay District[89]	No Limit	No Limit
SANTA CRUZ	N/A	N/A	N/A	N/A
SAN LUIS OBISPO	141[90]	N/A	N/A	No Limit
SONOMA	N/A	N/A	N/A	N/A
TRINITY	530 cannabis cultivation licenses[91]	N/A	1 application per parcel.[92] However, the limitation was removed when the ordinance was amended on February 20, 2019, and reincorporated into the ordinance on	10,000 sq. ft. per parcel[94]; or up to 1 acre with Conditional Use Permit on a property of 50 acres or more.[95]

[81] Humboldt Cty. Board of Supervisors, Resolution No. 18-43, Section 2, (May 8, 2018).
[82] Humboldt Cty. Board of Supervisors, Resolution No. 18-43, Section 2, (May 8, 2018).
[83] Humboldt Cty. Code §§ 313-55.4.8.10, 314-55.4.8.10.
[84] Humboldt Cty. Code §§ 313-55.4.5.4, 314-55.4.8.10.
[85] Mendocino Cty. Code, Cal., §10A.17.070(D).
[86] Mendocino Cty. Code, Cal., §10A.17.060.
[87] Nevada Cty. Land Use & Development Code § L-II 3.30(F)(7).
[88] Nevada Cty. Land Use & Development Code § L-II 3.30(F)(1)(b).
[89] Santa Barbara Cty. Code, § 50-7(a)(3).
[90] San Luis Obispo Cty. Code, § 22.40.050(A)(2).
[91] Trinity Cty. Code Chapter 17.43.040(A).
[92] Trinity Cty. Code Chapter 17.43.030(G).
[94] Trinity Cty. Code Chapter 17.43.030(A)(1).
[95] Trinity Cty. Code Chapter 17.43.040(B).

Table 7: LOCAL ORDINANCES CAPPING CULTIVATION PERMITS, PERMIT ACREAGE OR FARM SIZE				
COUNTY	**CAP ON NUMBER OF POTENTIAL PERMITS ISSUED COUNTYWIDE**	**CAP ON ACREAGE ISSUED COUNTYWIDE**	**CAP ON NUMBER OF PERMITS ISSUED PER PERSON**	**CAP ON ACREAGE PER PERSON OR PARCEL**
			December 15, 2020.[93]	
YOLO	65 (of which no more than 5 may be in the Capay Valley)[96]	N/A	N/A	2-acres[97]

2. Nevada and Humboldt cap the number of permits that one person or entity can obtain.

Nevada County's ordinance caps the number of permits issued to a person or entity to three (3) total permits countywide. Additionally, no person or entity may have a ***financial interest*** in more than eight commercial cannabis businesses unless they are participating in a cannabis cooperative[98] as defined by the Business and Professions Code, Division 10, Chapter 22 (Nevada Cty. Land Use & Dev. Code § L-II 3.30(F)(7)). Humboldt's Medical Marijuana Land Use Ordinance ("MMLUO") allows a single person or business to be issued four commercial cannabis activity permits for any permit type (Humboldt Cty. Code § 313-55.4.8.10 & § 314-55.4.8.10).

3. Santa Barbara and Humboldt cap the total cumulative acreage of cannabis cultivation permitted countywide.

Santa Barbara's ordinance includes two separate acreage caps on cannabis operations; first, there is a cap of 1,575 acres of cannabis cultivation, nurseries, and microbusinesses within the unincorporated area of Santa Barbara County; second, there is a separate limit of 186 acres (Santa Barbara Cty. Code § 50-7(a)(3)) in the Carpinteria Agricultural Overlay District.[99] These caps are administered through the County Executive Office's cannabis division and are based on cannabis business licensing. There are two eligibility lists from which cannabis business licenses subject to

[93] Trinity Cty. Ordinance No. 315-848.
[96] Yolo Cty. Cannabis Land Use Ordinance § 8-2.1406(G).
[97] Yolo Cty. Code § 5-20.03(L).
[98] A Cannabis Cooperative Association is defined in State law as "an association of three or more natural persons who hold a single Type 1 or Type 2 license; are engaged in cannabis cultivation; collectively do not grow more than four acres of total canopy throughout the State; and associate for the purpose of cultivating, marketing, or selling the cannabis products of its members" (Bus. and Prof. Code §26223(a)).
[99] The purpose of the Carpinteria Agricultural Overlay District is to "designate geographic areas of AG-I zoned lands in the Carpinteria Valley appropriate to support future greenhouse development and to designate areas appropriate for the preservation of open field agricultural uses. The intent is to ensure well-designed greenhouse development and to limit the loss of open field agricultural areas from piecemeal greenhouse expansion by providing well-crafted development standards that protect the water quality, visual resources, and rural character of the Carpinteria Valley" (Santa Barbara Cty. Code Art. 2 § 35-102F).

the cap will be issued: one for the county's unincorporated areas and one for the Carpinteria Agricultural Overlay District ("CAOD"). To be placed on the eligibility list, an operator must: (1) have an approved land use entitlement; (2) submit a complete cannabis business license application that the County Executive Office has accepted, and (3) pay all required cannabis business licensing fees/deposits. As of April 2022, the acreage issued to operators for the unincorporated area of Santa Barbara County has reached 1,535.40, and 39.6 acres remain for the County to issue (Cty. of Santa Barbara, n.d.-b). The acreage issued to operators in the CAOD is 185.97 (Cty. of Santa Barbara, n.d.-a).

4. Four counties cap the total number of permits countywide.

Four counties limit the number of permits that can be issued countywide. Table 8 describes the caps on the total number of permits that can be issued countywide in the four counties with permit caps.

Table 8: COUNTY CAPS ON THE TOTAL NUMBER OF PERMITS ISSUED COUNTYWIDE

COUNTY	NUMBER OF CANNABIS PERMITS OR LICENSES AUTHORIZED BY CANNABIS ORDINANCE
HUMBOLDT	3,500 permits in the aggregate across all watersheds and coastal plan areas[100]
SAN LUIS OBISPO	141 permits[101]
TRINITY	530 commercial cannabis licenses[102]
YOLO	65 permits (of which no more than 5 may be in the Capay Valley)[103]

Humboldt

Humboldt caps the total number of permits that can be issued countywide at 3,500 permits in the aggregate across all watersheds and coastal plan areas. [104]

San Luis Obispo

San Luis Obispo County limits the maximum number of cannabis cultivation operations to 141 (San Luis Obispo Cty. Code § 22.40.050(A)(2)). Within the Agriculture land use category, on sites between 10 and 25 acres, the maximum number of outdoor cultivation operations is only two; for sites in the agriculture land use category that are larger than 25 acres in area, only three outdoor cultivation operations are allowed. Only one outdoor cultivation operation is permitted for sites within the Rural Lands land use category.

[100] Humboldt Cty. Board of Supervisors, Resolution No. 18-43, § 2, (May 8, 2018).
[101] San Luis Obispo Cty. Code § 22.40.050(A)(2).
[102] Trinity Cty. Code Chapter 17.43.040(A).
[103] Yolo Cty. Cannabis Land Use Ordinance § 8-2.1406(G).
[104] Humboldt Cty. Board of Supervisors, Resolution No. 18-43, § 2, (May 8, 2018).

Trinity

Trinity caps the number of Cannabis Cultivation Licenses ("CCLs") at five hundred thirty (530) (Trinity Cty. Code Chapter 17.43.040(A)). At least thirty (30) licenses must be issued to properties located within the Trinity County Waterworks District #1 (Trinity Cty. Code Chapter 17.43.040(A)). Waterworks District #1 is in Hayfork, a historical legacy cannabis-producing region (McDaniel, 2016). As of December 4, 2021, the cap of 530 CCLs has been met and potential new applicants have been placed on a waiting list to be processed if other CCL applicants do not complete the application process (Cty. of Trinity Cmty. Dev. Services, n.d.). Of the 530 licenses, only 15 may be issued to a "Type 3" Medium Outdoor license. To be eligible for a Type 3 Medium Outdoor license ("Type 3"), the property must be fifty (50) acres or more (Trinity Cty. Code Chapter 17.43.040(B)). Priority for Type 3 licenses is given to applicants with a valid 2016/2017 Trinity County license (Trinity Cty. Code Chapter 17.43.040(B)). As of December 20, 2019, all fifteen (15) available Type 3 licenses have been reserved, and no additional Type 3 licenses are available to be issued by the County (Cty. of Trinity Cmty. Dev. Services, n.d.). The Director of the Planning Department may increase the number of Type 3 licenses to up to thirty (30) if the Program Environmental Impact Report supports the increase. The ordinance does not include any standards by which this increase may be assessed, and it is entirely left to the discretion of the Planning Director (Trinity Cty. Code Chapter 17.43.040(B)(2)).

Yolo

Yolo caps the number of Cannabis Use Permits that can be issued at 65, of which no more than 5 may be in the Capay Valley. The County BOS is responsible for selecting the procedure for allocating Use Permits where demand is expected to exceed the available number of permits. Once a permit and license have been granted, the license allocation will be considered secure, and Annual license renewal will not be subject to subsequent competitive allocation requirements. The BOS is also responsible for determining whether an area is "over-concentrated" based on the number of Cannabis Use Permits issued within the area. The Capay Valley has been identified as an area of over-concentration, resulting in the amount of Cannabis Use Permits being limited to five. New or relocating Cannabis Use Permits are not allowed in the Capay Valley.

5. Some counties limit the number of permits per legal parcel.

Trinity's ordinance allows one application per legal parcel (Trinity Cty. Ordinance No. 315-823(3)(b); Chapter 17.43.040(G)). This limitation was included in the first urgency ordinance adopted in 2017, then was inadvertently removed when the ordinance was amended on February 20, 2019; it was then added back into the ordinance on December 15, 2020. Mendocino prohibits a person from applying for more

than two permits of any type on a single parcel, and two different persons cannot apply for a permit on the same legal parcel. Permits can be granted at a maximum density of one permit per legal parcel. Still, a person may obtain two separate permits of different permit types on a single legal parcel if the total square footage of the two permits does not exceed the largest maximum square footage on a parcel for the relevant zoning district (Mendocino Cty. Code § 10A.17.070(D)).

6. Some counties limit the size of each permit.

The AUMA's findings and declarations provide that the AUMA will "ensure the nonmedical marijuana industry in California will be built around small and medium-sized businesses by prohibiting large-scale cultivation licenses for the first five years" (AUMA § (2)(J)). The MAUCRSA prohibits any "large" cultivation licenses from being issued until January 1, 2023 (Cal. Bus. & Prof. Code, § 26061, subd(c)). Some local governments have sought to restrict the size of cultivation licenses further they issue.

The largest cultivation permits allowed in Mendocino and Nevada (Nevada Cty. Land Use Dev. Code § L-II 3.30(F)(1)(b)) are 10,000 square feet, the equivalent of a "small" State license. This policy was supported in Mendocino by "multi-generational family farmers in the belief that it would prevent large-scale farms from entering the market" (Maxwell, 2018).

Trinity County allows a maximum of 515 cultivation sites of up to 10,000 square feet (the equivalent of a "small" State license) and a maximum of 15 outdoor cultivation sites of up to one acre (the equivalent of a "medium" State license).

Humboldt's CCLUO allows no more than eight acres of commercial cannabis cultivation permits to be issued to a single person or business (Humboldt Cty. Code § 313-55.4.5.4 and § 314-55.4.8.10).

Chapter 20 of Yolo's County code (now repealed) allows for commercial cultivation of cannabis on up to one acre of garden canopy (Yolo Cty. Code, § 5-20.04(2)(a)(1)). Cultivation of marijuana of less than one thousand (1,000) square feet is prohibited (Yolo Cty. Code, § 5-20.04(2)(a)(1)). Additionally, although the cultivation area for mature plants is capped at one acre, an applicant can also apply for a nursery permit of unlimited size on the same parcel.[105]

7. Humboldt includes sub-county limits on potential permits.

Humboldt County limits commercial cannabis cultivation activities in the coastal zone by permit and total acreage per the Local Coastal Area Plan[106] under the County's

[105] Sec. 5-20.16 stipulates that the Yolo County Board of Supervisors may approve a nursery license if the applicant complied with all aspects of the competitive solicitation process undertaken by the County Administrator's Office in connection with nursery and processing facilities; and issuance of the proposed license would not result in an exceedance of the maximum number of authorized nursery or processing facilities; the maximum number is set by the Board of Supervisors and can be changed at their sole discretion.

[106] The County of Humboldt's Local Coastal Program regulates all development in the Coastal Zone. The following six Local Coastal Plans comprise the certified Humboldt County Local Coastal Program: Eel River Area Local Coastal Plan, Humboldt Bay Area Local

Commercial Cannabis Land Use Ordinance ("CCLUO") (Humboldt Cty. Code § 313-55.4.6.8). Once the permit cap for a given local coastal plan is reached, no additional permits for open-air cultivation activities will be processed until the County Planning Commission and Board of Supervisors considers a review of the limits and approves an increase in the cap by amending the Humboldt County Code, as certified by the California Coastal Commission. The permit and area acreage caps are listed by the coastal plan area in Table 9.

Table 9: HUMBOLDT COUNTY CULTIVATION AREA CAPS, COASTAL ZONE[107]

COASTAL PLANNING AREA	PERMIT CAP	ACRE CAP
NORTH COAST AREA PLAN	4	2
TRINIDAD AREA PLAN	0	0
MCKINLEYVILLE AREA PLAN	4	2
HUMBOLDT BAY AREA PLAN	38[108]	13
EEL RIVER AREA PLAN	112	39
SOUTH COAST AREA PLAN	13	5
TOTAL	**171**	**61**

Humboldt limits commercial cannabis cultivation activities outside the coastal zone by permit and total acreage per watershed under the ***CCLUO*** (Humboldt Cty. Code § 314-55.4.6.8.). The County Board of Supervisors adopted Resolution No. 18-43 in May 2018, establishing permit and acreage cap limits for the twelve Humboldt County watersheds (Cty. of Humboldt BOS, 2018).[109] Once the permit cap for a given watershed is reached, no additional permits for cultivation activities can proceed until the County performs an analysis of the condition of the planning watersheds in coordination with CDFW, the NCRWQCB, the SWRCB, and the Department of Forestry and Fire Protection and approves an increase in the cap by amending the Humboldt County Code (Cty. of Humboldt BOS, 2018). The permit and acreage caps are listed by watershed in Table 10; 3,500 permits can be issued across 1,205 acres permitted in the twelve Humboldt County watersheds.

Coastal Plan, McKinleyville Area Local Coastal Plan, North Coast Area Local Coastal Plan, South Coast Area Local Coastal Plan, and Trinidad Area Local Coastal Plan.

[107] Humboldt Cty. Code § 313-55.4.6.8.

[108] Humboldt Cty. Code 313-55.4.6.8 (stating that "cannabis cultivation sites with public water from the Humboldt Bay Municipal Water District may be exempt from the cap with a will-serve letter from the district providing public water service to the site").

[109] The permit caps were reaffirmed by the Board of Supervisors in September 2019 (Mukherjee, 2019).

Table 10: HUMBOLDT COUNTY CULTIVATION AREA CAPS, OUTSIDE COASTAL ZONE		
HUMBOLDT COUNTY (OUTSIDE COASTAL ZONE) WATERSHEDS	**PERMIT CAP**	**ACRE CAP**
CAPE MENDOCINO	650	223
EUREKA PLAIN	89	31
LOWER EEL	336	116
LOWER KLAMATH	161	56
LOWER TRINITY	169	58
MAD RIVER	334	115
MIDDLE MAIN EEL	360	125
REDWOOD CREEK	141	49
SOUTH FORK EEL	730	251
SOUTH FORK TRINITY	86	29
TRINIDAD	19	6
VAN DUZEN	425	146
TOTAL	**3,500 permits**	**1,205 acres**

In addition, permits for new open-air and indoor cultivation activities and the expansion of lawful pre-existing cultivation sites are temporarily prohibited in nine subwatersheds (Cty. of Humboldt BOS, 2018). These nine subwatersheds are impacted by low stream flows due to high concentrations of current cannabis cultivation activities (Cty. of Humboldt BOS, 2018). The nine subwatersheds are Headwaters Mattole River, Middle Mattole River, and Upper Mattole River in the Cape Mendocino Watershed; Noisy Creek-Redwood Creek and Minor Creek-Redwood Creek in the Redwood Creek Watershed; Redwood Creek, Salmon Creek, and Sprowel Creek, in the South Fork Eel River Watershed; and Hoagland Creek-Van Duzen River, Butte Creek, and Little Van Duzen River, in the Van Duzen River Watershed (Cty. of Humboldt BOS, 2018).

I. Water and Energy Requirements Limit Properties Eligible for a Permit Based on Site Constraints

1. Irrigation Water Source Requirements.

Each study county has different requirements for irrigation water, depending on the water source. Water sources that may be permitted or prohibited can include

surface water, groundwater, rainwater, stored water (in ponds, tanks, and bladders), trucked water, and municipal water. Several counties prohibit cultivators from using trucked or hauled water for irrigation, except for emergencies which are defined differently by each county.[110]

Mendocino

Mendocino prohibits cultivators from using water that has been illegally diverted (Mendocino Cty. Code § 10A.17.040(G)). Wells may be used if a Well Permit, Well Completion Report, Residential Building Record, or Department of Water Resources Letter is provided to the County (Mendocino Cty. Code § 10A.17.090(K)).

Nevada

Nevada requires cultivators to use a legal and permitted water source. It prohibits unlawful or unpermitted drawing of surface water (Nevada Cty. Land Use & Dev. Code § L-II 3.30(D)(6)(j)). Wells may be used if applicants provide the county with a well permit, well completion log, and estimated gallons per minute (Cty. of Nevada Community Development Agency [NCDA], n.d.)

Trinity

Trinity allows cultivators to use permitted wells, and as part of the application and renewal process, applicants must provide the County with groundwater monitoring data for existing on-site well facilities that document water usage and changes in groundwater levels during each month of the year. If monitoring data identifies potential drawdown impacts on adjacent well(s), surface waters, waters of the State, and sensitive habitats, and indicates a connection to the operation of the on-site wells, then the cannabis operator must develop adaptive management measures[111] to allow for recovery of groundwater levels that would protect adjacent wells and habitat conditions that could be adversely affected by declining groundwater levels. If monitoring demonstrates that the well is hydrologically connected to surface water, the well usage will be subject to surface water diversion requirements and restrictions (Trinity Cty. Code Chapter 17.43G.030(X)). Trinity requires ponds to be constructed using "environmental and animal-friendly linings" but does not describe any specific requirements (Trinity Cty. Code Chapter 17.43.060(T)).

Humboldt

Humboldt limits the types of water sources allowable for cultivators. Cultivators may use Stored Water from Non-Diversionary Sources (i.e., captured rainfall or a local water source that is diverted and stored not for contemporaneous irrigation and water not withdrawn from a water body). Cultivators may also use water from a Public or

[110] Humboldt Cty. Code § 314-55.4.12.2.5.; Trinity Cty. Code Chapter 17.43.060(C); Nevada Cty. Land Use & Development Code § L-II 3.30(D)(6)(j).

[111] Adaptive management measures include forbearance (prohibition of groundwater extraction from May to October), water conservation measures, reductions in on-site cannabis cultivation, alteration of the groundwater pumping schedule, or other measures determined appropriate by the county.

Private Water Supplier if the water supplier determines that there is sufficient water capacity for irrigation use.[112] Diversionary sources may be permitted with a Special Permit pursuant to the Streamside Management Area Ordinance, county code section 314-61.1, and subject to performance standards for diversionary water use (Humboldt Cty., Cal., Cty. Code § 314-55.4.6.3.2).

Humboldt reserves the right to reduce the allowed cultivation area approved under a permit in special circumstances such as drought or low flows if continued water withdrawal would substantially adversely affect fish and wildlife resources (Humboldt Cty. Code § 313-55.4.5.10; § 314-55.4.5.10). Humboldt allows ponds if located "off-channel," compliant with setbacks, and designed by a licensed civil engineer (Humboldt Cty. Code § 314-55.4.12.8.1). However, using bladders and above-ground pools is prohibited (Humboldt Cty. Code § 314-55.4.12.8.1). Water storage tanks are permissible if compliant with flood zone conditions and grading and building permits (Humboldt Cty. Code § 314-55.4.12.8.1). Trucked water is not allowed except for emergencies, defined as a sudden, unexpected occurrence demanding immediate action (Humboldt Cty., Cal., Cty. Code § 314-55.4.12.2.5).

San Luis Obispo

San Luis Obispo County requires water offset for cannabis cultivation and cannabis nurseries in areas with a Groundwater Basin at a Level of Severity unless a higher offset is required by CEQA review through the land use permit process. The water offset can be achieved through a County-approved water conservation program for the respective basins. Cannabis activities cannot use trucked-in water as a source of water for the activity (San Luis Obispo Cty. Code, § 22.40.050(D)(5)(a)). A permit from the Central Coast Regional Water Quality Control Board is required for cannabis cultivation. Cannabis cultivation sites that require a land use permit and are in a groundwater basin must provide an estimate of water demand prepared by a licensed Professional Geologist, Certified Engineering Geologist, Certified Hydrogeologist, or another expert on water demand and approved by the Director of Planning and Building, and a detailed description of how the new water demand will be offset (San Luis Obispo Cty. Code, § 22.40.050(D)(5)(a)).

Santa Cruz

In Santa Cruz County, permit applications must be accompanied by a letter from the Water District serving the area stating that adequate capacity is available to serve the use. Otherwise, the applicant shall demonstrate it has an approved on-site source or another adequate alternative source of water (Santa Cruz Cty. Code, Chapter 13.10.650(17)(a)). All water used for cultivation purposes must be obtained from an

[112] A "Public or Private Water Supplier" means "a retail water supplier, as defined in Section 13575 of the Water Code, including community services districts or similar public or private utilities serving 11 or more customers whose primary beneficial use of water is municipal or domestic" (Humboldt Cty., Cal., Cty. Code § 55.4.6.3.2).

approved on-site source, except for water used in the case of emergencies and water obtained from a Department of Public Health, Food, and Drug Branch licensed purveyor that is used solely for the initial filling of water tanks used to meet on-site water storage requirements for firefighting purposes (Santa Cruz Cty. Code, Chapter 13.10.650(17)(b)). Cannabis is not allowed to be cultivated in the County with the use of a shared water source or water extraction equipment without the express permission of all the persons holding an ownership interest in that water source or water extraction equipment. Applicants are required to submit an identification of the water supply to be used for cultivation and documentation demonstrating that the source is following all ***statutes***, regulations, and requirements of the California State Water Resources Control Board, Division of Water Rights (Santa Cruz Cty. Code, Chapter 13.10.650(17)(b)).

Sonoma

Sonoma County requires operators to have an on-site water supply source adequate to meet all on-site uses on a sustainable basis (Sonoma Cty. Code § 26-88-254(g)(10)).[113] Trucked water is not allowed except for emergencies requiring immediate action (Sonoma Cty. Code § 26-88-254(g)(10)). Additionally, before beginning grading or construction, operators are required to prepare and implement a stormwater management plan and an erosion and sediment control plan (Sonoma Cty. Code § 26-88-254(f)(20)). The County also requires that a wastewater management plan be submitted identifying the amount of wastewater, excess irrigation, and domestic wastewater anticipated, as well as disposal (Sonoma Cty. Code § 26-88-254(g)(9)).

Lake

Lake County requires operators to submit a map and a sketch of the proposed cultivation site showing the location of any water bodies and/or watercourses (Lake Cty. Code § 27(at)(2)(i)(b)b(2)). Identification of all water sources used for cultivation activities and the estimated volume of water used monthly must also be provided to the County planning department. Applicants must also send the County answers to a set of "performance standards questions," which include whether the cultivation site is located outside a floodplain and whether the applicant has a legal, on-site source of water (Lake Cty. Code § 27(at)(2)(i)(b)(4)(i-xiii)).

Yolo

[113] Operators have to verify that their on-site water supply is adequate by providing any of the following types documentation: "documentation from the municipal water source that adequate supplies are available to serve the proposed use; an existing legal water right and, if applicable, a Streambed Alteration Agreement issued by the California Department of Fish and Wildlife; documentation that the proposed use would not result in a net increase in water use on-site through the implementation of water conservation measures, rainwater catchment or recycled water reuse system, water recharge project, or participation in a local groundwater management project; or a hydro-geologic report prepared by a qualified professional providing supporting data and analysis and certifying that the on-site groundwater supply is adequate to meet the proposed uses and cumulative projected land uses in the area on a sustained basis" (Sonoma Cty. Code § 26-88-254(g)(10)(a-c)).

In Yolo County, drainage and stormwater must be discharged by cultivators into approved on-site stormwater management systems (Yolo Cty. Code, § 8-2.1408(J)). Applicants must comply with 100-foot setback requirements from lakes, perennial ponds, rivers, creeks, sloughs, and perennial streams (Yolo Cty. Code, § 8-2.1408(MM)). Cultivators are also required to identify the source of all water proposed to be used for the operation, substantiate a legal right to use the water if from a surface source, and demonstrate that adequate capacity is available to serve the use on a sustainable basis (Yolo Cty. Code, § 8-2.1408(VV)). If the operation involves more than 25 persons (including employees, property owners, and visitors) at least 60-days per year, the site is required to comply with public water system requirements and obtain a water supply permit from the Division of Environmental Health (Yolo Cty. Code, § 8-2.1408(VV)).

2. Renewable Energy Requirements and Limits on Generator Usage.

Several county ordinances require that any generators used to support the cultivation operations be used as a backup (Mendocino Cty. Code, § 10A.17.110(E)), secondary or temporary[114] power source, and not as a primary source of energy. Trinity allows generators to be used as a backup until January 1, 2023. If generators are used, several counties, including Mendocino (Mendocino Cty. Code, § 10A.17.110(E)), Humboldt,[115] Trinity (Trinity Cty. Code Chapter 17.43.060(B)), and Nevada, limit the noise levels that the generator may produce. In Lake County, except for generators for temporary use in the event of a power outage or emergency that is beyond the permittee's control, cultivators cannot rely on generators powered primarily by personal gasoline, diesel, propane, or similar fuels (Lake Cty. Code, § 27 (at)(31)(ii)).

Trinity and Monterey require cultivators to utilize a renewable energy source exclusively. This term is defined differently across jurisdictions. Monterey requires on-site renewable energy for indoor and nursery license types but not for mixed light, though it is encouraged (Monterey Cty. Code, § 21.67.050(B)(9)). Trinity requires all electricity sources used for all licensees to be from renewable-compliant sources (Trinity Cty. Code, § 17.43G.040(G)). Humboldt's CCLUO (Ordinance 2.0) requires all permittees to utilize electricity that is exclusively provided by a renewable energy source and/or grid power supplied by a 100% renewable source (Humboldt Cty., Cal., Cty. Code, § 55.4.6.3.1). Table 11 shows the definition of renewable energy source in Humboldt, Trinity, and Monterey.

[114] Monterey does not permit generators as a permanent power source (Monterey Cty. Code, § 21.69.060(Q)(4)). The use of generators short-term is allowed, but generator use requires air quality permits from the Monterey Bay Air Resources District.
[115] Humboldt requires generators to comply with performance standards for generator noise (Humboldt Cty. Code, § 55.4.6.5.6).

Table 11: DEFINITION OF RENEWABLE ENERGY SOURCE	
HUMBOLDT	"Renewable energy source" means electrical power provided by a renewable energy system and/or grid power, supplied from one hundred percent (100%) renewable source. "Renewable energy system" means equipment for generating and supplying power without the use of petroleum or other fossil fuels, and instead using appropriate technology including but not limited to wind turbines, photovoltaic panels, and hydroelectric systems, in concert with private devices and systems for energy storage and distribution including batteries, grid inter-tie, or other means (Humboldt Cty., Cal., Cty. Code, § 314-55.4.4). The county provides information regarding Renewable Energy Source options in an FAQ posted on its website (HPBD, 2016). They provide information on PG&E's Solar Choice Program. The Solar Choice Program allows PG&E customers to purchase up to 100% of their electricity from a community renewable program generating renewable power within California, without needing to install private rooftop solar panels.
TRINITY	All electricity sources used for all licensees must be from renewable-compliant sources by conforming to one or more of the following standards by January 1, 2023, for consistency with California Code of Regulations Title 3, Division 8, Chapter 1, Section 8305 (Renewable Energy Requirements): ● Grid-based electricity supplied from one hundred percent renewable sources.116 ● On-site power supplied fully by renewable source (e.g., photovoltaic system). ● On-site power supplied by partial or wholly non-renewable source with purchase of carbon offset credits; and ● Some combination of the above. (Chapter 17.43G.040(G); EIR Mitigation Measure 3.8-1b.)). ● Generators may be used as a backup until January 1, 2023.
MONTEREY	Onsite renewable generation is designed to offset anticipated energy demand to the maximum extent feasible and purchase of carbon offsets of any portion of power not provided from onsite renewable sources; or ongoing participation in a rate program offered by the electric utility provider that provides energy from one hundred percent (100%) renewable source. Examples of such programs include the Central Coast Community Energy 3CPrime program, and Pacific Gas and Electric Company's Solar Choice or Regional Renewable Choice programs.

Santa Barbara County requires applicants for a mixed-light cannabis business license to prepare and submit an Energy Conservation Plan (Santa Barbara Cty. Code § 50-10-(b)). The Energy Conservation Plan is specific to electricity use only, must establish the proposed operation's net energy demand, and must demonstrate the required energy reduction or no net increase. Energy reduction, or no net increase in energy demand, can be achieved through participating in an annual energy audit, measuring and recording net energy use, upgrading, and maintaining efficient heating/cooling/dehumidification systems, utilizing natural light when possible, or ensuring that energy use is below or in-line with industry benchmarks (Santa Barbara Cty. Code § 50-10-(b)(1-2)).

J. Counties Restrict Areas Where Cannabis May Be Cultivated

All study counties limit the areas where cannabis may be located, described colloquially within the industry as the "Green Zone" (Levey, 2020). All study counties require setbacks from sensitive uses, including schools and property boundaries. Some

[116] *See* Cty. of Trinity Public Utilities Department. (n.d.). *Trinity PUD Provides Renewable Energy to Our Customers.* Retrieved from https://www.trinitypud.com/about/renewable-energy.

counties require setbacks from environmental features, such as waterways and sensitive habitat areas. Several counties have adopted “opt-in” or “opt-out” areas where cannabis cultivation is encouraged or prohibited. Humboldt restricts the amount of prime agricultural soil that can be utilized for cannabis cultivation to twenty percent (20%) of the total prime agricultural soil on the parcel (Humboldt Cty. Code § 55.4.6.4.3). Some counties limit the slope of cultivation areas. The cumulative effect of all these factors (setback buffers, zoning, slope, land use designation, and required soil) generally limits the area available for cannabis cultivation significantly.

1. Counties Allow Cannabis Cultivation in Specific Zones

Counties generally utilize zoning to limit areas where cannabis cultivation may occur. Counties tend to allow cultivation in Agricultural, Forestry, Industrial, Residential, Rural Residential, and Commercial zones. Yolo county is unique as the first iteration of a cannabis ordinance in Yolo County did not contain any restrictions for outdoor cannabis cultivation based on zoning classes – nor were there references to cannabis cultivation in Yolo County’s Zoning Code. However, in 2021 the Yolo County BOS approved the updated Proposed Cannabis Land Use Ordinance (CLUO); the CLUO repealed and replaced the earlier cannabis ordinance and contained more comprehensive zoning requirements. The CLUO allows cultivation in Agricultural, Industrial, and specified Commercial zones (Yolo Cty. Code § 8-2.1407).

Table 12 shows the permissible zones for cannabis cultivation in each county and the number of observations associated with each zoning designation. A given observation can be associated with multiple zoning designations. There are no observations in Trinity or Yolo county.

Table 12: IDENTIFIED ZONING DESIGNATIONS BY JURISDICTION			
JURISDICTION	**DESIGNATION**	**CODE**	**OBSERVATION COUNT**
HUMBOLDT	AGRICULTURE EXCLUSIVE	AE	165
HUMBOLDT	AGRICULTURE GENERAL	AG	50
HUMBOLDT	NEIGHBORHOOD COMMERCIAL	C1	0
HUMBOLDT	COMMUNITY COMMERCIAL	C2	1
HUMBOLDT	FLOOD PLAIN	FP	17
HUMBOLDT	FORESTRY RECREATION	FR	81
HUMBOLDT	HEAVY INDUSTRIAL	MH	6
HUMBOLDT	INDUSTRIAL COMMERCIAL ZONE	C-3	0
HUMBOLDT	LIMITED INDUSTRIAL ZONE	ML	0
HUMBOLDT	HIGHWAY SERVICE COMMERCIAL	CH	1
HUMBOLDT	RESIDENTIAL SINGLE FAMILY	RS	0
HUMBOLDT	RESIDENTIAL SUBURBAN	RSUB	5
HUMBOLDT	RURAL RESIDENTIAL AGRICULTURE	RA	1
HUMBOLDT	TIMBERLAND PRODUCTION	TPZ	123
HUMBOLDT	COMMERCIAL TIMBER	TC	0
HUMBOLDT	UNCLASSIFIED	U	183
LAKE	AGRICULTURAL PRESERVE DISTRICT	APZ	2
LAKE	AGRICULTURAL DISTRICT	A	19
LAKE	PLANNED DEVELOPMENT COMMERCIAL	PDC	4
LAKE	RESORT COMMERCIAL	RESC	0
LAKE	RURAL LANDS	RL	45
LAKE	RURAL RESIDENTIAL	RR	7
MENDOCINO	AGRICULTURAL DISTRICT	AG	0
MENDOCINO	FOREST LANDS DISTRICT	FL	0
MENDOCINO	TIMBERLAND PRODUCTION	TPZ	0
MENDOCINO	LIMITED INDUSTRIAL	I1	0
MENDOCINO	GENERAL INDUSTRIAL	I2	0

Table 12: IDENTIFIED ZONING DESIGNATIONS BY JURISDICTION			
JURISDICTION	**DESIGNATION**	**CODE**	**OBSERVATION COUNT**
MENDOCINO	PINOLEVILLE INDUSTRIAL	PI	0
MENDOCINO	RANGELAND	RL	0
MENDOCINO	RURAL RESIDENTIAL	RR	1
MENDOCINO	UPLAND RESIDENTIAL	UR	2
MONTEREY	AGRICULTURAL CONSERVATION (IN COASTAL ZONE)	ACCZ	0
MONTEREY	FARMLAND	FARM	4
MONTEREY	HEAVY INDUSTRIAL	HI	0
MONTEREY	LIGHT INDUSTRIAL	LI	0
NEVADA	GENERAL AGRICULTURE	AG	50
NEVADA	AGRICULTURAL EXCLUSIVE	AE	0
NEVADA	FOREST	FR	5
SAN LUIS OBISPO[117]	AGRICULTURE	A	25
SAN LUIS OBISPO	RESIDENTIAL RURAL	RR	3
SAN LUIS OBISPO	RURAL LANDS	RL	6
SAN LUIS OBISPO	INDUSTRIAL	I	0
SANTA BARBARA	AGRICULTURE I	A1	1
SANTA BARBARA	AGRICULTURE II	A2	8
SANTA BARBARA	LIGHT INDUSTRY	M-1	0
SANTA BARBARA	GENERAL INDUSTRY	M-2	0
SANTA CRUZ	AGRICULTURE	A	1
SANTA CRUZ	COMMERCIAL AGRICULTURE	CA	10
SANTA CRUZ	PARKS, RECREATION, AND OPEN SPACE	PR	1
SANTA CRUZ	SPECIAL USE	SU	1
SANTA CRUZ	TIMBER PRESERVE	TP	0
SONOMA	DIVERSE AGRICULTURE	DA	2

[117] San Luis Obispo County employs a unique land use regulatory system wherein there are no zoning designations separate from the land use designations. The Land Use Element of the comprehensive plan, the Land Use Ordinance, contiguous and continuous Area Plans, and combining districts interact in such a way to regulate land use without use of a separate zoning system.

Table 12: IDENTIFIED ZONING DESIGNATIONS BY JURISDICTION			
JURISDICTION	**DESIGNATION**	**CODE**	**OBSERVATION COUNT**
SONOMA	LAND EXTENSIVE AGRICULTURE	LEA	5
SONOMA	LAND INTENSIVE AGRICULTURE	LIA	2
SONOMA	RESOURCES AND RURAL DEVELOPMENT	RRD	4

1. Functional Zoning Equivalents Across Counties

We have identified functional zoning equivalents across the eleven study counties that fall into the following overarching categories. These have been coded into our database enabling us to identify trends across jurisdictions that utilize different zoning terminology.

A. **Natural Resources:** Mendocino, Humboldt and Nevada allow cultivation on forested parcels. Mendocino allows cultivation on Forest Lands, Humboldt on Forestry Recreation, and Nevada on Forest. Table 13 shows the functional equivalents for natural resources, including their designation and description regarding the intent of the zoning.

Table 13: FUNCTIONAL EQUIVALENTS: NATURAL RESOURCES		
PROTECTS FORESTED AREAS FOR TIMBER PRODUCTION AND RECREATION, AND FLOODPLAINS		
HUMBOLDT	FORESTRY RECREATION	Humboldt's code states that the intent of this zone is "Intended to be applied to forested areas of the County in which **timber production and recreation** are the desirable predominant uses and agriculture is the secondary use, and in which protection of the timber and recreational lands is essential to the general welfare." (Humboldt Cty. Code § 314-7.3).
HUMBOLDT	FLOOD PLAIN	Humboldt's code states that the Flood Plain or FP Zone is "intended to be applied to areas which have been inundated by flood waters in the past and which **may reasonably be expected to be inundated by flood waters in the future**. The Flood Plain Zone is intended to limit the use of areas subject to such inundation and flooding to protect lives and property from loss, destruction, and damage due to flood waters and to the transportation by water of wreckage and debris." (Humboldt Cty. Code § 314-5.2).
MENDOCINO	FOREST LANDS DISTRICT	Mendocino's code describes the intent of this zone as: "This district is intended to encompass lands within the Coastal Zone which are suited for and are appropriately retained for the **growing, harvesting and production of timber and timber-related products**. The district includes lands eligible to be zoned Timberland Production (TP), as well as intermixed smaller parcels and other contiguous lands necessary for the production and efficient management of timber resource lands." (Mendocino Cty. Code § 20.360.005).
NEVADA	FOREST	Nevada's code states that the intent of the FR District is that it "Provides areas for the **protection, production and management of timber, timber support uses**, including but not limited to equipment

		storage and temporary offices, low intensity **recreational uses**, and open space." (Nevada Cty. Code § L-II 2.3(B)(3)).
SAN LUIS OBISPO	RURAL LANDS	The purpose of San Luis Obispo's "Rural Lands" land use category is: "a. To encourage rural development at very low densities that maximizes preservation of open space, watershed, and wildlife habitat areas. b. To retain large parcel sizes where rural residences may be established on lands having open space value but limited agricultural potential. c. To maintain low population densities in rural areas outside of urban and village reserve lines where an open and natural countryside with very low development intensity is preferred. d. To establish areas where non-agricultural activities are the primary use of the land, but where agriculture and compatible uses may co-exist."[118]
SANTA CRUZ	PARKS, RECREATION, AND OPEN SPACE	Santa Cruz's ordinance states that the PR District is included in the zoning ordinance to achieve the following purposes: (A) General. To preserve the County's undevelopable lands and public park lands as open space; and to protect open space in the County by allowing commercial **recreational uses** which preserve open space by means of large acreage sites with low intensity uses which are compatible with the scenic values and natural setting of the County; and to preserve agriculture as an open space use. (B) **Commercial Recreation**. To provide for commercial recreation facilities and uses which aid in the conservation of open space in the County; to recognize and encourage these uses as a major component in the County's economy; to provide standards for their development and operation so as to ensure the preservation of open space, an appropriate intensity of uses, adequate public access and services, and proper management and protection of the environment and the natural resources of the County. (C) State and Federal Parks, Preserves, and Biotic Research Stations. **To provide for the State and Federal park lands, preserves and biotic research facilities in the County**; to provide density and development standards for such uses consistent with the availability of adequate access and services, land development capacities, agricultural protection, and the preservation of open space. (D) Local Parks. **To recognize existing park sites and to designate and protect those locations** designated by the adopted County General Plan for local park use, and to provide development and operation standards for such uses. (E) **Open Space**. To designate and to preserve, through careful and limited development and use, those lands designated on the General Plan which are not appropriate for development due to the presence of one or more of the following resources or constraints: (1) Coastal bluffs and beaches; (2) Coastal lagoons, wetlands and marshes; (3) Riparian corridors and buffer areas; (4) Flood ways and floodplains; (5) Wooded ravines and gulches which separate and buffer areas of development; (6) Slopes over 30 percent inside the urban services line; over 50 percent outside the urban services line; (7) Sensitive wildlife habitat areas and biotic resource areas (Santa Cruz Cty. Code Chapter 13.10.351).
SANTA CRUZ	SPECIAL USE	Santa Cruz's code states that the Special Use district is intended to achieve the following purposes: "(A) General. To provide for and regulate the use of land for which **flexibility of use and regulation** are necessary to ensure consistency with the General Plan, and to encourage the planning of large parcels to achieve integrated design of major developments, good land use planning, and protection of **open space, resource, and environmental values**. (B) Lands with a Variety of Physical Constraints. To provide for the development of lands with a variety of physical hazard constraints or about which there is a lack of sufficient information about the particular characteristics of the land or where some unusual feature of the

[118] Id. p. 6-13

		known characteristics of the land precludes effective use and regulation of such land under any other zone district. (C) Mixed Uses. To provide for the development of lands which are designated on the General Plan for **mixed uses**, and where the specific portions of the land reserved for each use have not yet been specified or determined in detail. [Ord. 3432 § 1, 1983]." (Santa Cruz Cty. Code Chapter 13.10.381).
SONOMA	RESOURCES AND RURAL DEVELOPMENT	Sonoma's code states that the Resources and Rural Development zones "protect agricultural land and natural resource and open space areas, support the county's agricultural and natural resource economic base in a sustainable manner, and manage and conserve natural resources to avoid depletion and promote replenishment of these resources. Specific. Resources and rural development (RRD). The RRD zone: a. Protects lands needed for: (1) Commercial timber production, geothermal production, aggregate resources production; (2) Watershed, fish and wildlife habitat, biotic resources; and (3) Agricultural production activities not subject to the agricultural resources element of the general plan. b. **Allows very low-density residential development** and recreational and visitor-serving uses where **compatible with resource use** and available public services; and c. Implements the resources and rural development land use category of the general plan." (Sonoma Cty. Code Article 06, § 26-06-020).

B. **Timberland Production Zone ("TPZ"):** We include TPZ as its own zone separate from natural resources because TPZ zones are covered by a state regulatory program. The California Timberland Productivity Act of 1982 passed by the California legislature created a state policy to maintain the limited supply of timberland, discourage premature or unnecessary conversion of timberland to urban and other uses, discourage expansion of urban services into timberland, and encourage investment in timberlands based on reasonable expectation of harvest. (Cal. Government Code § 51102(a)). Timberland production zone or "TPZ" means an area which has been zoned pursuant to Government Code Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses approved by the county. Several counties allow cultivation in TPZ zones. Humboldt[119] allows cultivation on Timberland Production (TPZ) for some projects.[120] Humboldt's CMMLUO ("Ordinance 1.0") allows existing projects to be permitted in TPZ areas on parcels of at least one acre, on the cultivation area that existed prior to January 1, 2016, but no expansion of the existing cultivation area is permitted (Humboldt Cty., Cal., Cty. Code § 313-55.4.8.2 and 314-55.4.8.2.2). Santa Cruz

[119] Per the 2017 Humboldt County General Plan, there are "1.2 million acres of private forested land and 0.3 million acres of public forested land in Humboldt County, covering more than 80% of the County's land area. Roughly 990,000 acres are zoned Timber Production Zone (TPZ), two-thirds of which are held by timber companies" (Humboldt County General Plan, Part 2, Chapter 4.6.2, adopted October 23, 2017).

[120] Timberland Production or TPZ Zones are "intended to provide standards and restrictions for the preservation of timberlands for growing and harvesting timber" (Humboldt Cty. Code § 314-7.4).

allows cultivation on Timber Preserve (TP)[121]. Trinity prohibits cultivation on TPZ unless the applicant is a Phase 1 legacy applicant[122] (Trinity Cty. Code § 17.43.050(A)(4)). Mendocino allows existing cultivation sites in the TPZ zoning districts that were previously enrolled in a permit program pursuant to the County's Chapter 9.31 to obtain a zoning clearance unless the applicant seeks to expand beyond the size previously cultivated under such permit program (Mendocino Cty. Code § 20.242.040(B)). Table 14 shows the functional equivalents for TPZ across the counties.

Table 14: FUNCTIONAL EQUIVALENTS: TIMBERLAND

PROTECTS TIMBERLANDS FOR GROWING AND HARVESTING TIMBER		
HUMBOLDT	TIMBERLAND PRODUCTION	Humboldt's code states the intent of the Timberland Production zone is to "provide standards and restrictions for the **preservation of timberlands for growing and harvesting timber**." (Humboldt Cty. Code § 314-7.4).
HUMBOLDT	COMMERCIAL TIMBER	Humboldt's code states that Commercial Timber zone allowable activities "includes the **on-site production of commercial timber** products. The following are Commercial Timber Use Types: The Timber Production Use Type refers to the growing, management, and **harvesting of trees of any commercial species used to produce timber and other forest products** including Christmas trees and may include any use which is integrally related to the growing, harvesting and processing of forest products, including but not limited to roads, log landings, and log storage areas, portable chippers, and portable sawmills." (Humboldt Cty. Code § 314-173).
MENDOCINO	TIMBERLAND PRODUCTION	Mendocino's code states that the Timberland Production district is intended to "be applied to areas of the County which because of their general soil types, location and timber growing capabilities are suited for and should be **devoted to the growing, harvesting, and production of timber** and timber related products and are taxed as such." (Mendocino Cty. Code § 20.068.005).
SANTA CRUZ	TIMBER PRESERVE	Santa Cruz's code states that the Timber Preserve district serves to achieve the following purposes: "(A) To **protect and maintain the timberland** of the County through regulation of timberland use; to establish a zone district consistent with the mandates of the **California Timberland Productivity Act of 1982**; to protect the health, safety and welfare of the people of Santa Cruz County; and to preserve agriculture and other open space uses where compatible with timberland uses." (Santa Cruz Cty. Code Chapter 13.10.371).
TRINITY	TIMBERLAND PRODUCTION	Trinity's code states that the Timberland Production zone is "Intended to provide for timberland zoning and restrictions for a minimum of a ten (10) year period. Such zoning allows land to be valued for property taxation, in general, on the basis of its use for **growing and**

[121] The TP District is included in the zoning ordinance to achieve the following purposes: "(A) To protect and maintain the timberland of the County through regulation of timberland use; to establish a zone district consistent with the mandates of the California Timberland Productivity Act of 1982; to protect the health, safety, and welfare of the people of Santa Cruz County; and to preserve agriculture and other open space uses where compatible with timberland uses" (Santa Cruz Cty. Code Chapter 13.10.371).
[122] A qualified Phase I applicant is "a person or entity who completed enrollment in the NCRWQCB Order #2015-0023 in reference to a Trinity County-based operation by August 1, 2016."

		harvesting timber and compatible uses." (Trinity County Zoning Ordinance 315, § 14.1(A)).

C. **Agriculture:** Several counties allow cultivation in agricultural zones where agriculture is the desirable predominant use, and to protect land capable of producing agricultural products. The agriculture category is often further divided into "Agriculture Exclusive" or "Agriculture Preserve" where agriculture is the sole, primary use, and any support facilities must support the agricultural use, and "Agriculture General" where agriculture is the desirable predominant use and non-agricultural uses, such as rural residential uses are secondary. Table 15 shows the functional zoning equivalents for agriculture across counties.

Table 15: FUNCTIONAL EQUIVALENTS: AGRICULTURE

AGRICULTURAL USE IS PROTECTED, PRESERVED AND PRIORITIZED		
HUMBOLDT	AGRICULTURE EXCLUSIVE	Humboldt's code states that the Agriculture Exclusive zone is intended to apply to "fertile areas in which agriculture is and should be the desirable predominant use and in which the **protection** of this use from encroachment from incompatible uses is essential to the general welfare." (Humboldt Cty. Code § 314-7.1).
HUMBOLDT	AGRICULTURE GENERAL	Humboldt's code states that the Agriculture General zone is intended to apply to parcels where "agriculture is the desirable predominant use and rural residential uses **are secondary**." (Humboldt Cty. Code § 314-7.2).
LAKE	AGRICULTURAL PRESERVE DISTRICT	Lake's code states that the Agricultural Preserve District applies to "Lands in agriculture **preserve** and for the conservation and **protection** of land capable of producing agricultural products. The uses specified in this section have been determined to be compatible uses consistent with the California Land Conservation Act of 1965." (Lake Cty. Zoning Code, Article 4, § 21-4).
LAKE	AGRICULTURAL DISTRICT	Lake's code states that the Agricultural district is intended to "protect the County's agricultural soils, provide areas suitable for agriculture, and prevent development that would preclude their future use in agriculture." (Lake Cty. Zoning Code, Article 5, § 21-5.1).
MENDOCINO	RANGELAND	Mendocino's code states that the Rangeland district is "intended to create and preserve areas for (A) the **grazing of livestock**, (B) the production and **harvest of natural resources**, and (C) the protection of such natural resources as watershed lands from fire, pollution, erosion, and other detrimental effects. **Processing of products produced on the premises would be permitted as would certain commercial activities associated with crop and animal raising**. Typically, the R-L District would be applied to lands for incorporation into Type H Agricultural Preserves, other lands generally in range use, and intermixed smaller parcels and other contiguous lands, the inclusion of which is necessary for the protection and efficient management of rangelands." (Mendocino Cty. Code § 20.060.005).
MENDOCINO	AGRICULTURAL DISTRICT	Mendocino's code states that the Agricultural district is "intended to **encompass lands within the Coastal Zone which are suited for and appropriate for retention in agricultural uses** including lands presently under Type 1 Agricultural Preserve contracts, lands having

Table 15: FUNCTIONAL EQUIVALENTS: AGRICULTURE		
AGRICULTURAL USE IS PROTECTED, PRESERVED AND PRIORITIZED		
		present or future potential for significant agricultural production and contiguous or intermixed smaller parcels on which non compatible uses could jeopardize adjacent agricultural lands." (Mendocino Cty. Code § 20.356.005).
MONTEREY	AGRICULTURAL CONSERVATION (IN COASTAL ZONE) [AC (CZ)]	Monterey's code states that the Agricultural Conservation District is intended "to **preserve** and enhance the use of relatively small pockets of prime agricultural soil and productive grazing lands in the County of Monterey while also providing the opportunity to establish support facilities for grazing uses and clustered residential uses." (Monterey County Coastal Implementation Plan Title 20.32.010).
MONTEREY	FARMLAND	Monterey's code states that the Farmland district is intended to "provide a district to **preserve and enhance the use of the prime, productive and unique farmlands** in the County of Monterey while also providing opportunity to establish necessary support facilities for those agricultural uses." (Monterey Cty. Code Chapter 21.30.010)).
NEVADA	AGRICULTURAL EXCLUSIVE	Nevada's code states that the Agricultural Exclusive zone "provides for the **preservation and protection of important agricultural lands** that are being used for commercial agricultural production. It is consistent with all agricultural-oriented General Plan land use designations, as well as those designations that allow for more intensive uses. **Agricultural uses are of primary importance** and all other uses determined to be incompatible with agriculture shall not be permitted." (Nevada Cty. Code § L-II 2.3(B)(2)).
NEVADA	GENERAL AGRICULTURE	Nevada's code states that the General Agriculture zone is intended for "farming, ranching, agricultural **support facilities** and services, low intensity uses, and open space. It is consistent with all agricultural-oriented General Plan land use designations, as well as those designations that allow for more intensive uses. Agricultural uses are of primary importance and **all other uses are secondary**." (Nevada Cty. Code § L-II 2.3(B)(1)).
SAN LUIS OBISPO	AGRICULTURE	The purpose of San Luis Obispo's "Agriculture" land use category is: "a. To **recognize and retain commercial agriculture as a desirable land use** and as a major segment of the county's economic base. b. To designate areas where **agriculture is the primary land use with all other uses being secondary**, in direct support of agriculture. c. To designate areas where a combination of soil types, topography, water supply, existing parcel sizes and good management practices will result in the protection of agricultural land for agricultural uses, including the production of food and fiber. d. To designate areas where rural residential uses that are not related to agriculture would find agricultural activities a nuisance or be incompatible. e. To protect the agricultural basis of the county economy and encourage the open space values of agriculture to continue agricultural uses, including the production of food and fiber. f. To recognize that agricultural activities on a small scale can supplement income from other sources, particularly where older subdivisions have resulted in parcels smaller than would currently qualify for new subdivisions within the parcel size range for the Agriculture category. g. Support conversion of agricultural lands to other uses only when such conversion would be appropriate or because the continuing agricultural productivity of a specific site is infeasible, considering the factors in purpose statement c, above. h. To give high priority to the protection of commercial prime and nonprime agricultural soils where the commercial viability, siting (whether inside or outside urban reserve lines), and natural resources

Table 15: FUNCTIONAL EQUIVALENTS: AGRICULTURE		
AGRICULTURAL USE IS PROTECTED, PRESERVED AND PRIORITIZED		
		allow for agricultural uses, including the production of food and fiber. (San Luis Obispo County. (2018). *Coastal Zone Framework for Planning, San Luis Obispo County General Plan*. https://www.slocounty.ca.gov/Departments/Planning-Building/Forms-Documents/Plans-and-Elements/Elements/Framework-for-Planning-Coastal-Zone.pdf).
SANTA BARBARA	AGRICULTURE I	Santa Barbara's code states that Agriculture I areas are "**appropriate for agricultural uses** within Urban, Inner Rural, Rural (Coastal Zone only) and Existing Developed Rural Neighborhood areas that are shown on the Santa Barbara County Comprehensive Plan land use maps. The intent of the AG-I zone is to provide standards that will **support agriculture as a viable land use** and encourage **maximum agricultural productivity**." (Santa Barbara Cty. Land Use and Development Code Chapter 35.21.020 (A)).
SANTA BARBARA	AGRICULTURE II	Santa Barbara's code states that the intent of the Agriculture II zone is "to **preserve** these lands for **long-term agricultural use**. The AG-II zone also includes a minimum gross lot area designation…that limits the subdivision potential of land and in some cases affects the range of allowable land uses. (Santa Barbara Cty. Land Use and Development Code Chapter 35.21.020 (B)).
SANTA CRUZ	COMMERCIAL AGRICULTURE	Santa Cruz's code states that the purpose of the Commercial Agriculture zone district is to "**preserve** the commercial agricultural lands within Santa Cruz County which are a limited and irreplaceable natural resource, to maintain the economic integrity of the economic farm units comprising the commercial agricultural areas of the County, to implement the agricultural preservation policy of SCCC 16.50.010, and to maintain and enhance the general welfare of the County as a whole by **preserving and protecting agriculture**, one of the County's major industries. Within the CA Commercial Agriculture Zone District, commercial agriculture shall be **encouraged to the exclusion of other land uses** which may conflict with it." (Santa Cruz Cty. Code Chapter 13.10.311(A)).
SANTA CRUZ	AGRICULTURE	Santa Cruz's code states that the purpose of the Agriculture Zone District is to "**encourage and provide for noncommercial agricultural uses, such as family farming and animal raising**, and to allow limited commercial agricultural activities, on the small amounts of agricultural land remaining in the County which are not designated as commercially suitable, **but which still constitute a productive natural resource**; to provide for agricultural uses of a higher intensity in rural areas than those allowed in the RA Residential Agricultural Zone District where such use is compatible with the surrounding land uses and the environmental constraints of the land; to maintain options for a diversity of farm operations; to implement the agricultural preservation policy of Chapter 16.50 SCCC; and to maintain productive open space and rural character in the County." (Santa Cruz Cty. Code Chapter 13.10.311(B)).
SONOMA	LAND INTENSIVE AGRICULTURE	Sonoma's code states that the purpose of the Land Intensive Agriculture zone is to "**protect agricultural land and natural resource and open space areas**, support the county's agricultural and natural resource economic base in a sustainable manner, and manage and conserve natural resources to avoid depletion and promote replenishment of these resources. Specific. Land intensive agriculture (LIA). The LIA zone: a. Enhances and protects lands best suited for permanent agricultural use and capable of relatively high

Table 15: FUNCTIONAL EQUIVALENTS: AGRICULTURE		
AGRICULTURAL USE IS PROTECTED, PRESERVED AND PRIORITIZED		
		production per acre of land; and b. Implement the land intensive agriculture land use category of the general plan and the policies of the agricultural resources element." (Sonoma Cty. Code Article 06, § 26-06-020).
SONOMA	LAND EXTENSIVE AGRICULTURE	Sonoma's code states that the purpose of the Land Extensive Agriculture zone is to "**protect agricultural land** and natural resource and open space areas, support the county's agricultural and natural resource economic base in a sustainable manner, and manage and **conserve natural resources** to avoid depletion and promote replenishment of these resources. The LEA zone: a. Enhances and **protects lands best suited for permanent agricultural use** and capable of relatively low production per acre of land; and b. Implements the land extensive agriculture land use category of the general plan and the policies of the Agricultural Resources Element. (Sonoma Cty. Code Article 06, § 26-06-020).
SONOMA	DIVERSE AGRICULTURE	Sonoma's code states that the purpose of the Diverse Agriculture zone is to "**protect agricultural land and natural resource and open space areas**, support the county's agricultural and natural resource economic base in a sustainable manner, and **manage and conserve natural resources to avoid depletion and promote replenishment of these resources**…the DA zone "(A) Enhances and protects land where soil, climate, and water conditions support farming but where small acreage intensive farming and part-time farming activities are predominant, and where farming may not be the principal occupation of the farmer; and (B) Implement the diverse agriculture land use category of the general plan and the policies of the Agricultural Resource Element." (Sonoma Cty. Code § 26-06-020).

D. **Rural Residential:** Humboldt, Lake, and Mendocino permit cannabis cultivation in Rural Residential ("RR") zones. RR zones are areas where residential development and limited agriculture coexist on a parcel. RR parcels in some counties have no public services such as water or sewer. Table 16 shows the functional zoning equivalents for Rural Residential across counties.

Table 16: FUNCTIONAL EQUIVALENTS: RURAL RESIDENTIAL		
RESIDENTIAL DEVELOPMENT IN RURAL AND SEMI-RURAL AREAS WITH AGRICULTURAL USE		
HUMBOLDT	RURAL RESIDENTIAL AGRICULTURE	Humboldt's Code does not provide a meaningful description or intent for this designation. Principally and conditionally permitted uses are enumerated in tables, along with development standards. (Humboldt Cty. Code § 314-6.6).
LAKE	RURAL RESIDENTIAL	Lake's code states that the Rural Residential zone is intended to "provide for single-family residential development in a **semi-rural** setting along with **limited agriculture**." (Lake Cty. Zoning Code, Article 8, § 21-8.1).

Table 16: FUNCTIONAL EQUIVALENTS: RURAL RESIDENTIAL		
RESIDENTIAL DEVELOPMENT IN RURAL AND SEMI-RURAL AREAS WITH AGRICULTURAL USE		
LAKE	RURAL LANDS	Lake's code states that the Rural Lands zone is intended to "provide for **resource related and residential uses** of the County's undeveloped lands that are **remote** and often characterized by steep topography, fire hazards, and limited access." (Lake Cty. Zoning Code, Article 7, § 21-7.1).
MENDOCINO	RURAL RESIDENTIAL	Mendocino's code states that the Rural Residential zone is intended to "create and enhance residential areas where **agricultural use compatible** with a permanent residential use is desired. Typically, the "R-R" District would be applied to **rural or semi-rural areas** where urban levels of service are not available and where large lots are desired." (Mendocino Cty. Code § 20.056.005).
MENDOCINO	UPLAND RESIDENTIAL	Mendocino's code states that the Upland Residential zone is "Intended to create and enhance **farming and low-density agricultural/residential uses**. Typically, the U-R District would be applied to nonprime production lands which have constraints to commercial agriculture, timber production or grazing but which are absent of such limitations as inadequate access, unacceptable hazard exposure or incompatibility with adjoining resource lands." (Mendocino Cty. Code § 20.048.005).
SAN LUIS OBISPO	RESIDENTIAL RURAL	The purpose of San Luis Obispo's "Residential Rural" land use category is: "a. To provide for **residential development at a low density compatible with a rural character and life-style** which maintains the character of the open countryside and is **compatible with surrounding agricultural uses**. b. To allow limited, compatible non-residential uses commensurate with rural parcel sizes. c. To **emphasize residential uses in areas where agriculture is clearly a secondary use**, or where agriculture is not feasible, yet large open space areas are maintained as part of a residential life-style. d. To encourage agricultural and other open space uses as part-time or incidental "hobby" activities, such as horse raising or specialty farming." (San Luis Obispo County. (2018). *Coastal Zone Framework for Planning, San Luis Obispo County General Plan*. https://www.slocounty.ca.gov/Departments/Planning-Building/Forms-Documents/Plans-and-Elements/Elements/Framework-for-Planning-Coastal-Zone.pdf).

E. **Industrial:** Humboldt, Mendocino, and Monterey allow cultivation in Industrial zones. Table 17 shows the functional zoning equivalents for industrial across these counties.

Table 17: FUNCTIONAL EQUIVALENTS: INDUSTRIAL		
TO PRESERVE AREAS FOR MANUFACTURING AND INDUSTRIAL USES		
HUMBOLDT	HEAVY INDUSTRIAL	Humboldt's code states that the Heavy Industrial zone is "Intended to apply to areas devoted to **normal operations of industries** subject only to regulations as are needed to control congestion and protect surrounding areas." (Humboldt Cty. Code § 314-3.3).

Table 17: FUNCTIONAL EQUIVALENTS: INDUSTRIAL		
TO PRESERVE AREAS FOR MANUFACTURING AND INDUSTRIAL USES		
HUMBOLDT	LIMITED INDUSTRIAL ZONE	Humboldt's code states that the Limited Industrial Zone is "Intended to apply to areas in which **light manufacturing and heavy commercial uses** of the non-nuisance type and large administrative facilities are the desirable predominant uses." (Humboldt Cty. Code § 314-3.2).
HUMBOLDT	INDUSTRIAL COMMERCIAL ZONE	Humboldt's code states that the Industrial Commercial Zone is "intended to apply to areas where **heavy commercial uses and compatible light industrial uses** not serving day to day needs are the desirable predominant uses." (Humboldt Cty. Code § 314-2.3).
MENDOCINO	LIMITED INDUSTRIAL	Mendocino's code states that the Limited Industrial zone is "Intended to create and preserve areas where **manufacturing and industrial uses** which evidence no or very low nuisance characteristics may locate. Nonindustrial uses which support or are adjuncts to industrial uses and are compatible with such uses are permitted within the zone particularly administrative, sales and service uses." (Mendocino Cty. Code § 20.096.005).
MENDOCINO	GENERAL INDUSTRIAL	Mendocino's code states that the General Industrial zoning district is "Intended to create and **preserve areas where a full range of industrial uses** with moderate to high nuisance characteristics may locate. Typically, this district would be applied to locations where large land acreages were available and where the impacts associated with the unsightliness, noise, odor, and traffic, and the hazards associated with certain industrial uses, would not impact on residential and commercial areas." (Mendocino Cty. Code § 20.100.005).
MENDOCINO	PINOLEVILLE INDUSTRIAL	Mendocino's code states that the Pinoleville Industrial zoning district is "intended to be applied to **all lands zoned Limited Industrial (I-1) within the Pinoleville Rancheria.** The objective of the P-I District is to **provide for industrial uses** and at the same time to protect the health, safety and general welfare of the residents living within the Rancheria. Creation of a new zoning district was determined to be preferable to rezoning lands within the Rancheria from I-1 to a commercial or residential zone because the new zoning district avoided making existing industrial uses nonconforming. But because some industrial uses may be incompatible with existing or future residential use of the Rancheria, it is the intent of the P-I District to require use permit approval for such uses, and further, that approval of Minor or Major Use Permits within the P-I District shall be granted only if the proposed use is compatible with residential use of the Rancheria and will not cause any significant nuisance or hardship to Rancheria residents. Within the P-I District the allowable uses shall be as specified in Sections 20.102.010 through 20.102.050." (Mendocino Cty. Code § 20.102.005).
MONTEREY	HEAVY INDUSTRIAL	Monterey's code states that the Heavy Industrial district is intended to "provide a district which will assure an environment conducive to the development and protection of **modern industry, research institutions and administration facilities,** all well designed and properly landscaped, which are not dependent on pedestrian traffic." (Monterey Cty. Code Chapter 21.28.010; Monterey Cty. Code Chapter 21.42.030).
MONTEREY	LIGHT INDUSTRIAL	Monterey's code states that the Light Industrial district is intended to "provide areas **exclusively for light industrial uses** and to encourage sound industrial development by setting forth appropriate

Table 17: FUNCTIONAL EQUIVALENTS: INDUSTRIAL		
TO PRESERVE AREAS FOR MANUFACTURING AND INDUSTRIAL USES		
		areas for these uses to protect nearby residential, commercial, and industrial uses from undue hazards, noise, and other disturbances." (Monterey Cty. Code Chapter 21.26.010).
SAN LUIS OBISPO	INDUSTRIAL	The purpose of San Luis Obispo's "Industrial" land use category is: "a. To identify areas **suited to industrial activities that will not adversely affect adjacent areas of other uses**. b. To provide opportunities for the **concentration of industrial uses** to enable efficient use of transportation, circulation, and energy facilities. c. To protect adjacent land uses from harmful influences, as well as to prevent the intrusion of incompatible uses into industrial areas. Residences are allowed only as caretaker or accessory uses. d. Where the Industrial category is located outside of urban or village reserve lines, it is intended to reserve appropriately located areas for industrial uses requiring large areas of land, nearby transportation or energy facilities, or related activities compatible with agricultural and other rural uses." (San Luis Obispo County. (2018). *Coastal Zone Framework for Planning, San Luis Obispo County General Plan*. https://www.slocounty.ca.gov/Departments/Planning-Building/Forms-Documents/Plans-and-Elements/Elements/Framework-for-Planning-Coastal-Zone.pdf).
SANTA BARBARA	LIGHT INDUSTRY	Santa Barbara's code states that "the M-1 zone is applied to areas to provide exclusively for **light industrial uses**. The intent is to encourage sound industrial development through appropriate areas for these uses, and to protect nearby residential, commercial, and industrial uses from hazards, noise, and other disturbances." (County of Santa Barbara Planning and Development. (n.d.). *SUMMARY OF ZONES IN SANTA BARBARA COUNTY*. https://content.civicplus.com/api/assets/c7887fde-96aa-4b17-988b-6d103b64eaa2).
SANTA BARBARA	GENERAL INDUSTRY	Santa Barbara's code states that "the M-2 zone applied to areas to provide for **all types of industrial uses** while providing the level of project review necessary to ensure that adverse impacts will be minimized and that these uses will be compatible with surrounding properties." (County of Santa Barbara Planning and Development. (n.d.). *SUMMARY OF ZONES IN SANTA BARBARA COUNTY*. https://content.civicplus.com/api/assets/c7887fde-96aa-4b17-988b-6d103b64eaa2).

F. **Commercial:** Humboldt and Lake allow cultivation in commercial districts that focus on shopping centers, commercial facilities, and tourist recreational development. Table 18 shows the functional zoning equivalents for commercial across these counties.

Table 18: FUNCTIONAL EQUIVALENTS: COMMERCIAL		
DEVELOPMENT OF COMMERCIAL FACILITIES OR SHOPPING CENTERS		
HUMBOLDT	NEIGHBORHOOD COMMERCIAL	Humboldt's code states that the Neighborhood Commercial or C-l Zone is "intended to provide for **neighborhood shopping centers** which will provide convenient sales and service facilities to residential areas without detracting from the residential desirability of such areas." (Humboldt Cty. Code § 314-2.1).
HUMBOLDT	COMMUNITY COMMERCIAL	Humboldt's code states that the Community Commercial zone is "intended to apply to areas where more complete **commercial facilities** are necessary for community convenience." (Humboldt Cty. Code § 314-2.2).
HUMBOLDT	INDUSTRIAL COMMERCIAL ZONE	Humboldt's code states that the Industrial Commercial zone is "intended to apply to areas where **heavy commercial uses and** compatible light industrial uses not serving day to day needs are the desirable predominant uses." (Humboldt Cty. Code § 314-2.3).
HUMBOLDT	HIGHWAY SERVICE COMMERCIAL	Humboldt's code states that the Highway Service Commercial or CH Zone is "intended to provide **necessary services and conveniences for the traveling public along main roads and highway** frontages at proper intervals and locations in developments designed for safety, convenience and suitable appearance." (Humboldt Cty. Code § 314-2.4).
LAKE	PLANNED DEVELOPMENT COMMERCIAL	Lake's code states that the intent and purposes of the Planned Development Commercial district are: "(a) To provide a means for encouraging creative and innovative **commercial or industrial developments** that are environmentally pleasing through the application of imaginative land planning techniques not permitted within other zones with fixed standards; (b) To provide for an orderly and cohesive growth and physical development pattern and the efficient delivery of County or community service; (c) To assure conformance of the project with the Lake County General Plan with respect to use, intensity, circulation, public facilities, and the preservation of natural features; (d) To encourage the design of commercial planned developments for compatibility with both existing and potential land uses, including a proper functional relationship with such adjacent areas; (e) To assess the development's impacts on public and private services through cost- benefit analyses and on other commercial trade areas through market analyses; (f) To promote equitable distribution of public facilities by encouraging developers to provide recreational facilities, community centers, streets, water and wastewater, fire protection and other public services in order to avoid the overcrowding of existing facilities used by established residents and provide for a balance of community services. (Lake Cty. Zoning Code, Article 15, § 21-15.1).
LAKE	RESORT COMMERCIAL	Lake's code states that the intent and purposes of the Resort Commercial district is "to provide for **tourist recreational development** in areas of unique scenic and recreational value, while providing for maximum conservation of the resources of the parcel." (Lake Cty. Zoning Code, Article 17 § 21-17.1).

G. **Unclassified:** Humboldt and Trinity allow cultivation in the Unclassified ("U") zones, which are unincorporated areas in the county that are not otherwise

zoned. Table 19 shows the functional zoning equivalents for unclassified zones in Humboldt and Trinity.

Table 19: FUNCTIONAL EQUIVALENTS: UNCLASSIFIED		
UNINCORPORATED AREA OF THE COUNTY NOT OTHERWISE ZONED		
HUMBOLDT	UNCLASSIFIED	Humboldt's code defines Unclassified zones as "all of the unincorporated area of the County not **otherwise zoned** is designated as the Unclassified or U Zone." (Humboldt Cty. Code § 314-8.1).
TRINITY	UNCLASSIFIED	Trinity's code defines Unclassified Districts as "those areas of the County **not classified into zoning districts of a particular use** at this time. A list of uses permitted on a parcel in an unclassified district include: One Single Family Dwelling, Christmas Tree Farm, Forestry, Orchard, Row and Field Crops." (Trinity County Zoning Ordinance 315, § 11).

H. **Residential:** Humboldt allows cultivation in Residential zones. Table 20 shows the residential zones where cannabis cultivation is permitted in Humboldt.

Table 20: FUNCTIONAL EQUIVALENTS: RESIDENTIAL		
AREAS OF THE COUNTY WHERE RESIDENTIAL USES ARE PERMITTED		
HUMBOLDT	RESIDENTIAL SINGLE FAMILY	Humboldt's code states that "the Residential Single Family Principally Permitted Use includes the following uses: Single Family Residential, Second Residential Unit, Cottage Industry; subject to the Cottage Industry Regulations, and Minor Utilities to serve these uses." (Humboldt Cty. Code § 313-163.1.9.5).
HUMBOLDT	RESIDENTIAL SUBURBAN	Humboldt's code states that "the Residential Suburban or RS Zone is intended to be applied in areas of the County which are particularly suited to large-lot development." (Humboldt Cty. Code § 314-6.1).

2. Counties Create Opt-In Areas Where Cannabis Cultivation is Allowed and Opt-Out Areas Where Cannabis Cultivation is Prohibited

In Trinity, commercial cannabis cultivation is permitted in Rural Residential ("RR") zones for existing operators, as many pre-existing cultivators were in RR-zoned areas. Essentially this "grandfathered in" existing operators on RR land. However, this caused some conflict with the non-cannabis community, particularly in Lewiston. As a result of this community friction, residents and property owners within Lewiston signed a petition requesting that commercial cannabis be prohibited as detrimental to local neighborhoods. The County responded with Zoning Ordinance 315-850, an urgency interim ordinance passed on June 15, 2021, which imposed a temporary moratorium on the issuance of new commercial cannabis cultivation licenses within the Lewiston Opt-Out Extension Area. Trinity County also issued an urgency interim ordinance,

Ordinance No. 315-845, imposing a temporary moratorium on the issuance of cultivation licenses within the area of Rush Creek Estates. These opt-out areas were created by urgency ordinance based on local activism and specific ad hoc complaints. There is no mechanism in the county code for creating these opt-out areas other than through amendments to the code by the Board of Supervisors.

The Mendocino County Code provides two types of "combining districts"[123] for cannabis cultivation. Code § 20.118 provides for a "CA" Cannabis Accommodation Combining District, an "Opt-In District," and Code § 20.119 provides for a "CP" Commercial Cannabis Prohibition Combining District, an "Opt-Out District." CA Combining Districts are intended to create areas with greater flexibility in development standards related to cannabis cultivation operations for existing commercial cannabis cultivation sites (MCC § 20.118.010).[124] Reciprocally, CP Combining Districts are intended to create areas where commercial cannabis operations are prohibited (MCC § 20.119.010).[125] Both CA and CP Combining Districts must be ten contiguous legal parcels or more in size (MCC § 20.119.020). One or more property owners of property within the boundaries of a proposed CA or CP Combining District may initiate the establishment process for such a district (MCC §§ 20.118.030(B), 20.119.030(B)). Districts ultimately are approved by the Board of Supervisors after a significant public process.[126]

3. Humboldt's Unique Retirement, Remediation, and Relocation ("RRR" Program") Provides Incentives to Relocate Cultivation Sites to Environmentally Superior Locations

To incentivize pre-existing cannabis operators to relocate their operations from environmentally sensitive and undesirable sites to environmentally superior sites, Humboldt created the Retirement, Remediation, and Relocation Program ("RRR Program"). The RRR program has similarities to a "density bonus"[127] concept, whereby

[123] Commercial Cannabis Accommodation Combining Districts (Opt-In Districts) are areas intended to support continued operations by existing growers, and Commercial Cannabis Prohibition Combining Districts (Opt-Out Districts) are areas where commercial cannabis operations would be restricted.

[124] Mendocino's CA Combining Districts during our study years are: Covelo Core, Covelo Fairbanks Road, Laytonville, and South Leggett (Mendocino Cty. Code § 20.118.070).

[125] Mendocino's CP Combining Districts during our study years are: Deerwood and Boonville Road – Woodyglen (Mendocino Cty. Code § 20.119.070).

[126] Applications for a combining district are filed with the County Planning and Building Services Department. Applicants must include either a petition demonstrating support for the proposed combining district of more than 60 percent of affected property owners or an alternative demonstration of landowner support, such as a landowner survey. The Board of Supervisors, with Planning Commission recommendation, acts on a combining district application consistent with standard conditions for rezoning under County Code § 20.212. MCC §§ 20.118.030(C), 20.119.030(C), 20.212. Under Section 20.212, the Planning Commission holds a public hearing on the proposed combining district, after which the Commission forwards a report including a written recommendation to the Board of Supervisors. MCC § 20.212.025. The Board approves, modifies, or disapproves the recommendation after public hearing. Any modification to a combining district application by the Board must first be referred back to the Planning Commission for report and recommendation, without public hearing (Mendocino Cty. Code § 20.212.030(B)).

[127] A "Density Bonus" is a state provision that "allows denser residential development in return for provision of affordable housing" (Cal. Gov't Code §§ 65915–65918). The incentive operates by allowing the developer a "density increase over the maximum allowable gross residential density" where the proposed new development provides for senior or affordable housing (Id. § 65915(f)).

Humboldt allows larger development (more square footage of cultivation area) for cultivators who relocate to more environmentally suitable areas. Pre-existing cultivation sites operating between 2006 and 2016 and located in less-than-ideal locations were permitted to relocate to a more environmentally ideal location and increase their square footage. RRR applicants were required to remediate their former site to its original condition as a condition of receiving a new, larger permit.

The RRR incentive-based program encourages the relocation of cultivation operations occurring in marginal and environmentally challenging sites to environmentally superior sites (MMLUO Frequently Asked Questions, 2016). To be eligible for the RRR Program an existing cultivator must be operating on a site before January 1, 2016, that meets several factors, including: (1) Located in TPZ, RA, U, AG, FR, or AE zones; (2) Includes a source of irrigation water from a surface water diversion without DWR water right or permit or CDFW streambed alteration permit; (3) Parcel is served by roads that do not conform with road performance standards;[128] (4) Parcel has slopes more than 15%; and (5) Does not comply with setbacks (Humboldt Cty. Code § 314-55.4.6.5.9(a)). Cultivators whose sites meet these criteria may be eligible to move their site to a new location that meets specific eligibility and siting criteria and applicable performance standards contained in the code.

To incentivize pre-existing cultivators to move to a new, environmentally superior site, cultivators can apply for a cultivation area at a new site up to four times the pre-existing RRR site. For projects located at a new site using up to 20,000 sq. ft. of cultivation area, applicants are eligible for a ministerial Zoning Clearance Certificate ("ZCC"). For new sites with a cultivation area above 20,000 sq. ft., applicants are eligible for a discretionary Special Permit. Applications for RRR sites had to be received before December 31, 2018.

As a condition of maintaining the ZCC or Special Permit, applicants must commit to remediating the former site and pay a bond to cover the cost of remediation if they fail.[129] Additionally, they must provide documentation regarding water sources, and

It also provides waivers from specific development standards (detailed within the local or state law—often referred to as "on menu") in exchange for the developer providing specific types (and percentages) of senior housing or affordable housing.

[128] Roads providing access to a parcel or premises on which cannabis activities occur must: "(1) comply with dead end road length standards (cannot be located more than 2-miles from the nearest intersection with a Category 4 road or secondary access for emergency vehicles); (2) meet or exceed the Category 4 road standard; (3) private roads and driveways must be designed and retrofitted to protect water quality and stream habitat" (Humboldt Cty. Code § 314-55.4.12.1.8).

[129] The operator of an RRR site must "prepare a plan for the full environmental remediation of the RRR site, including removal of all cultivation related materials, equipment, and improvements, re-grading to pre-existing contours, reseeding with native vegetation, reforestation, and habitat restoration, as determined appropriate by the Planning Department" (Humboldt Cty. Code § 314-55.4.6.5.9.5). The operator must execute an agreement to complete the work specified in the remediation plan within twelve (12) months and must post a bond in a sufficient amount that will allow the County to contract to complete the remediation work if the operator of the RRR site fails to do so. Additionally, the operator or the property owner of record for the original RRR site shall record a covenant executed by the property owner to not commercially cultivate cannabis or disturb the remediation area on the subject property in perpetuity, and in the event the covenant is violated, the County will be entitled to a lien on the property in the amount necessary to remediate the property, but not less than fifty thousand dollars ($50,000). If the covenant is violated and the operator of the RRR site retains any interest in the former RRR site property, all permits for operation of the relocation site shall be terminated.

slopes, and that the proposed relocation site is eligible and does not exceed four (4) times the square footage of the preexisting cultivation site (HPBD, n.d.).

The RRR Program was embroiled in controversy in October 2020 when County planning staff informed the Board of Supervisors that they believed the RRR program was being used incorrectly to acquire and sell "RRR permits" as commodities (Burns, 2020). Director John Ford explained:

> "*This has allowed cultivators to stack permits, resulting in some large-scale operations that are not subject to staff discretion, as the RRR permits can be issued as ZCCs for up to 20,000 sq. ft. Of the 57 RRR applications currently being processed, 39 are slated to be "stacked" onto four grow sites, one along State Route 36, two along the Avenue of the Giants, and a fourth just outside Rio Dell. At least two of those planned operations have been the subject of controversy and neighbor complaints." (*Humboldt Cty. Code § 314-55.4.6.5.9.5).

Director Ford suggested that the County modify its regulations so that anyone who wants to stack more than two RRR permits on a single site would need to apply for a discretionary Conditional Use Permit subject to approval by the Planning Commission. The Board voted to allow Director Ford to create a discretionary permit system for RRR permits and to provide suggestions at a future date, which is still to be determined (Humboldt Cty. Code § 314-55.4.6.5.9.5.).

4. Some Counties Limit the Permissible Slope of a Cultivation Site

Humboldt requires all cultivation sites to be confined to areas of a parcel where the slope (natural grade) is fifteen percent or less in both the coastal and non-coastal zones (Humboldt Cty. Code §§ 313-55.4.6.4.1, 314-55.4.6.4.1). There is an exception for pre-existing small cultivation sites in both the coastal and non-coastal zones if a permittee obtains a Zoning Clearance Certificate (Humboldt Cty. Code §§ 313-55.4.6.5.1(e), § 314-55.4.6.5.1(e)). In such pre-existing small cultivation sites with a zoning clearance certificate, an existing area of cultivation may be located on slopes between fifteen and thirty percent (Humboldt Cty. Code § 313-55.4.6.5.1(a); § 314-55.4.6.5.1(e)). Trinity County requires applicants with a cultivation area of more than a 35% slope to enroll as a Tier 2[130] project under the NCRWQCB Order #2015-0023, or regulations established by the SWRCB[131] (Trinity Cty. Code Chapter 17.43.060(D)).

[130] Commercial cannabis projects must enroll under the SWRCB General Order. Tier 2 applies to commercial projects that have a disturbed area of over 1-acre. "Disturbed area" is defined as "land areas where natural conditions have been modified in a way that may result in an increase in turbidity in water discharged from the site. Disturbed land includes areas where natural plant growth has been removed whether by physical, animal, or chemical means, or natural grade has been modified for any purpose" (Cal. State Water Res. Control Board., 2017). Tier 2 cannabis cultivators are required to monitor and submit an annual monitoring report to the applicable Regional Water Board.

[131] The regulations established by the SWRCB are discussed in Section II(A)(5). The NCRWQCB Order #2015-0023 is the California Regional Water Quality Control Board North Coast Region Order No. 2015-0023. The Order is a Waiver of Waste Discharge Requirements and General Water Quality Certification for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects In the North Coast Region. The purpose of the Order is to

Nevada County will not approve permits if development, including access, is within steep slopes (slopes over 30%) and high erosion hazard areas (areas determined to have highly erodible soils based on soils surveys prepared by the U.S. Soil Conservation Service and U.S. Forest Service) (Nevada Cty. Land Use & Development Code § L-II 4.3.13(C)). If steep slopes and high erosion hazard areas cannot be avoided, the disturbance is allowed subject to the approval of a Management Plan.

5. Counties Impose Setbacks from Sensitive Uses, Parks, Waterbodies, Roads, and Other Sites

Each of the study counties include setback requirements in their cannabis ordinances applicable to sensitive uses (including areas where children are present such as schools and daycare centers), public parks, water bodies, bus stops, public roads, tribal cultural resources, ceremonial sites, property lines, and neighboring structures. The setbacks are described in Table 74 in Appendix E. Trinity County and Nevada County allow setbacks to be reduced if the applicant obtains a discretionary variance (Nevada Cty. Land Use & Development Code § L-II 3.30(G)(4)); Trinity Cty. Code Chapter 17.43.050(A)(8)). Nevada allows a reduction in setbacks from the property line if an applicant obtains approval of an easement agreement[132] from the Planning Department (Nevada Cty. Land Use & Development Code § L-II 3.30(E)(2)(a)). Mendocino allows applicants to seek a reduction in the setbacks from youth-oriented facilities, schools, parks, and adjoining legal parcels with an Administrative Permit (Mendocino Cty. Code § 10A.17.040(A)(1)-(5)).

K. Counties Include Residency and Dwelling Requirements Which Limit Who May Participate in the Regulated Market

1. Trinity's First Ordinance Included a "Residency Requirement" That Was Revoked in 2019

Mirroring State law, Trinity's first ordinance included a residency requirement that was removed on March 20, 2019 (Cty. of Trinity BOS, 2019). The AUMA prohibited licensing authorities from issuing licenses to persons who are not residents of California until December 31, 2019 (AUMA § 26054.1(a)). The MAUCRSA repealed the residency requirement from State law (*Bill Text - SB-94 Cannabis: The Medical Cannabis Regulation and Safety Act (MCRSA)*, 2017). Trinity's first urgency ordinance passed in 2017 included a residency requirement whereby applicants had to prove they were residents of Trinity County for at least one year prior to applying by submitting documentation that demonstrated their physical presence in the County.

provide a water quality regulatory structure to prevent and/or address poor water quality conditions and adverse impacts to water resources associated with cannabis cultivation on private land.

[132] A "setback easement" is a formal dedication of land, intended to provide adequate building setbacks for all affected parcels. The applicant must obtain approval from their neighbor for the recording of the setback easement.

2. Four Counties Require a Legal Dwelling on or Near the Cultivation Site

Trinity requires each premise upon which cultivation will occur to have a legal dwelling unless the licensee is cultivating on a contiguous legal parcel with a legal dwelling which is under identical ownership as the parcel upon which cultivation will occur (Trinity Cty. Code § 17.43.030(F)). An operator can be exempt from this requirement if they have an active building permit and a Director's Use Permit ("DUP") for a temporary construction RV (Trinity Cty. Code § 17.43.050(A)(3)). An applicant can obtain a DUP to camp in a recreational vehicle for over 30 days (Trinity Cty. Code § 17.30.080(C).

Mendocino requires parcels with cultivation to have a dwelling unit unless they are located within certain zoning districts.[133]

Nevada requires a legally permitted and occupied residence on the parcel where cultivation occurs (Nevada Cty. Land Use & Development Code § L-II 3.30(C)(36)).[134] If buildings are not legally permitted at the time the application is submitted, they can be brought into compliance over two years in accordance with a Transition Plan.[135]

Humboldt requires an on-site residence for cannabis cultivation on small pre-existing cultivation sites (Humboldt Cty. Code § 313-55.4.6.5.1(a)). To obtain a permit to cultivate up to 3,000 square feet of Outdoor or Mixed-Light Cultivation (on a parcel 20 acres or larger in the coastal zone or 5 acres or larger in the inland zone) on a pre-existing site an operator's principal residence must be located on the same parcel and the residence must have been in existence on or before January 1, 2016 (Humboldt Cty. Code § 313-55.4.6.5.1(a)).

L. Counties impose additional stringent regulatory provisions on cannabis projects.

Most individual cannabis farms are in the North Coast region of California, including Humboldt, Mendocino, Sonoma, and Trinity counties. Most of the cannabis acreage cultivated in California is grown on the ***Central Coast*** in Santa Barbara, Monterey, San Luis Obispo, and Santa Cruz. Our study sites include Inland areas, including Nevada, Lake, and Yolo. Each region has its unique ordinance features that vary on a regional basis and sometimes relate to the environment of each county. For example, North Coast counties have habitats for many protected and endangered

[133] Upland Residential (U-R), Agricultural (A-G), Rangeland (R-L), Forest Land (F-L), Timberland Production (TPZ), Limited Industrial (1-1), General Industrial (1-2), and Pinoleville Industrial (P-1). In addition, legal conforming parcels in Rural Residential, lot size ten (10) acres (R-R:L-10), are also exempt from the dwelling unit requirement upon issuance of an Administrative Permit (Mendocino Cty. Code § 10A.17.070(E)).

[134] The residence must be a "fully enclosed permanent structure that has been legally established, permitted and certified as a single-family or multifamily dwelling. RVs, trailers, motorhomes, tents, or other temporary housing do not constitute a residence" (Nevada Cty. Land Use & Dev. Code Sec. L-II 3.30(D)(3)(a)).

[135] An exception to the dwelling unit requirement applies if the residence is located on a parcel adjacent to the cultivation site that is held under common ownership and has a permitted water source.

species, such as the Northern Spotted Owl and Coho Salmon. Therefore, they include requirements related to sensitive species in their ordinances (Katz et al., 2013; Gabriel et al., 2018).

1. Timberland Conversion is Prohibited in Humboldt, Trinity, Mendocino, and Nevada County.

Humboldt prohibits the conversion of timberland, and sites can only exist in a non-forested area that existed before January 1, 2016 (Humboldt Cty. Code § 55.4.6.4.2). If trees were removed prior to applying for a permit to facilitate cannabis cultivation and no 3-Acre Conversion Exemption or Timberland Conversion Permit was obtained, the applicant must prepare a restoration plan to reforest the site (Humboldt Cty. Code § 313-55.4.6.6; § 314-55.4.6.6).

2. Humboldt, Mendocino, Monterey, Nevada, Sonoma, and Trinity Include Ordinance Provisions Relating to Fire.

Researchers have found that cannabis agriculture is geographically more threatened by wildfire than any other agricultural crop in California (Kan-Rice, 2022). Humboldt,[136] Mendocino,[137] Nevada, Sonoma,[138] and Trinity[139] have experienced severe wildfires that have negatively impacted cannabis cultivators. These counties have ordinance provisions related to fire.

Humboldt's adult-use ordinance contains several provisions related to fire-safe road access and access for emergency vehicles and personnel, including wildland fire equipment (Humboldt Cty. Code § 313-55.4.12.1.8.1)).

Mendocino cultivators must maintain "defensible space" protocols and distances, as established by the California Department of Forestry and Fire Protection, around structures located on the legal parcel (Mendocino Cty. Code § 10A.17.110(H)).

Monterey requires cannabis drying facilities to install fire sprinklers as a condition of their land use entitlement.[140] The cost to install sprinklers has proven too high for some cultivators as sprinkler installation can often require structural upgrades of the facility itself.[141] Several significant issues related to fire have plagued Monterey County in recent years. One major issue arises from the taxation of cannabis cultivation,

[136] See Kemp, K. (2020, September 14). Humboldt Cannabis Industry Comes Together in the Face of Fires. *Redheaded Blackbelt.*
[137] See CBS San Francisco. (2021, July 9). Cannabis Company Reportedly Takes Responsibility for Broiler Fire in Mendocino County. *CBS Bay Area.*
[138] See Mozingo, J. (2017, October 29). Wildfires devastate California pot farmers, who must rebuild without banks or insurance. *Los Angeles Times*; ABC News. (2020, October 9). Wildfire Impact: Sonoma Co. cannabis growers concerned about smoke taint after fires. *ABC7 San Francisco*.
[139] See Good Day Sacramento. (2020, September 25). Locals Refuse to Abandon Large Marijuana-Growing Area Threatened by Wildfire. *CBS News Sacramento.*
[140] Monterey's Board of Supervisors explains that cannabis is treated no differently than other businesses as Monterey "follows regulations and statutes that are mandated by federal, state, and local regulations. These regulations for cannabis are no different than any other business seeking a land use entitlement and/or operating permit." *See* County of Monterey Board Of Supervisors. (2023, March 14). County of Monterey Meeting - File #: 23-216.
[141] *See* Monterey County Civil Grand Jury Report: Monterey County's Cannabis Industry Up in Smoke (2022). Monterey County Civil Grand Jury.

particularly a business tax imposed by the Monterey County Regional Fire District in 2018 (Ordinance No. 2018-01).[142] Monterey County is the only county in California to charge a regional fire tax and other business taxes such as a cultivation and a nursery taxes (Balderas, 2022). In 2018 a fire started at a cannabis operation in Greenfield and eventually burned down multiple greenhouses, none of which were equipped with fire sprinklers. Fire personnel stated that the fire would have been inhibited had sprinklers been installed throughout the facility (Kukura, 2018).

Nevada requires cannabis cultivators to comply with fire-safe regulations for commercial properties. These regulations, which apply to all commercial properties, include standards regarding driveways, fire alarms, fire water flow, hydrants, defensible space,[143] fire sprinklers,[144,] and Wild Urban Interface[145] requirements (Cty. of Nevada Community Development Agency [NCDA], n.d.-d). § L-II 4.3.18 of the Land Use Development Code applicable to Wildland Fire Hazard Areas requires secondary access roads to be built where the project is served by a dead-end road[146] that exceeds the maximum length in local standards.[147] Secondary access roads must be improved to the Fire Standard Access Road standard and consistent with overall county road standards (Nevada Cty. Land Use & Development Code § L-II 4.3.18(C)(2)(b)). The requirement to include secondary access for dead-end roads may be waived at the discretion of the permitting authority.[148]

Sonoma County requires applicants to prepare and implement a fire prevention plan for construction and ongoing operations and obtain any permits required from the fire and emergency services department (Sonoma Cty. Code § 26-88-254(f)(16)). The fire prevention plans must include emergency vehicle access and turn-around ability at the facility site, vegetation management, and fire break maintenance around all structures (Sonoma Cty. Code § 26-88-254(f)(16)), and that all outdoor and mixed-light

[142] *See* Ballotpedia. (2018, June). *Monterey County Regional Fire District, California, Measure H, Marijuana Tax.*
[143] Defensible space of 100 ft. is required around structures in accordance with CA Fire Code § 4906 and Public Resource Code § 4291.
[144] Fire sprinklers are required based on specific occupancy type per the California Building/Fire Codes. Depending on the available fire flow, occupancy type, and construction type at the site a structure greater than 3,600 sq. ft. could require fire sprinklers to be installed.
[145] Any new construction of a structure that changes use/occupancy is required to meet WUI construction requirements per chapter 7A of the California Building Code. Accessory structures such as greenhouses with a minimum setback of 50 ft. to support structures or residences may be exempt from these construction standards.
[146] Dead-end road is defined as "a road which has only one point of vehicular ingress/egress, including cul-de-sac and lopped roads" (Nevada County Land Use and Development Code § L-II 4.3.18(B)(1)).
[147] The standards are in County Road Standards, § L-XVII 3.4.I
[148] To be eligible for a waiver, applicants must "attest that there will be no special events held on the premises and the public will not have access to the premises; ADP applicants must additionally attest that they will have no more than ten (10) employees, and the Fire Authority must approve the exemption. Cultivators must submit their application to their local fire district and pass a fire site inspection prior to commencing operations. The requirement to include secondary access for dead-end roads may be waived at the discretion of the permitting authority" (Nevada Cty. Land Use & Development Code § L-II 3.30(C)(14)). Fire Authority is defined as "The CAL Fire unit chief, Fire Marshal, or the Fire Chief of any local fire protection district located in whole or in part within the County of Nevada, and all chief officers, Office of Emergency Services staff, contractors or designees, company officers and trained prevention staff as may be designated by a Fire Chief to enforce the provisions of this Section."

cultivation sites be screened by non-invasive fire-resistant vegetation and fenced with locking gates with a “Knox lock” (Sonoma Cty. Code § 26-88-254(f)(21)).

Trinity requires cultivators to comply with CalFire regulations, including activity related to the clearing of land (Trinity Cty. Code § 17.43.060(N)). Vegetation can't be burned unless the cultivator submits proof that required permits have been obtained, including a burn permit or CalFire approval for a less-than-three-acre conversion. (Trinity Cty. Code § 17.43.060(X)).

3. San Luis Obispo has Strict Odor Control Requirements.

In San Luis Obispo County, all cannabis cultivation must be sited and/or operated in a manner that prevents cannabis nuisance odors from being detected offsite (San Luis Obispo Cty. Code § 22.40.050(D)(8)). All structures utilized for indoor cannabis cultivation (defined as cultivation within a permanent structure using a combination of natural light, light deprivation, and/or artificial lighting) are required to be equipped with sufficient ventilation to eliminate nuisance odor emissions from being detected offsite.

4. Monterey Requires Cultivators to Pay for Intersection Improvements.

Monterey’s existing mixed-light cannabis industry is required to be located on sites with pre-existing agricultural operations and buildings or greenhouses (e.g., greenhouses used for the cut flower industry that is no longer active). Monterey’s Programmatic MND identified a primary impact of traffic changes because of these conversions. As such, the MND included mitigation measures such as traffic improvements for both direct and indirect impacts (Cty. of Monterey BOS, 2020). Mixed-light applicants covered by the Programmatic MND pay a proportional fee to the County, which will complete intersection improvements (Cty. of Monterey BOS, 2020).

M. Counties Modified their Ordinances and Cannabis Programs After January 1, 2021.

Several counties have modified or proposed modifications to their ordinances after January 1, 2021, through May 1, 2023, which is outside of our study years. These changes do not impact our analysis of existing issued permits included in our study; however, they may impact those permittees in the future, or they may have impacts for new applicants. They are discussed here as they may impact our policy recommendations.

1. Humboldt County Cannabis Reform Initiative Qualified for The Ballot in 2024.

A local group of residents has gained signatures to place a ballot initiative on the ballot in 2024, the “Humboldt County Cannabis Reform Initiative”, (hereafter referred to

as “the HCRI”).[149] The HCRI seeks to overhaul the existing cannabis ordinance and amend the Humboldt County General Plan, in order to “protect the County’s residents and natural environment from harm caused by large-scale cannabis cultivation. Specifically, the Initiative seeks to promote environmentally responsible cultivation practices and support watershed health for residents, property owners, and ecosystems affected by cannabis cultivation activities.” (HCRI, 2022).

The Humboldt County Growers Alliance (“HCGA”), a trade association that represents licensed cannabis operators in Humboldt, has expressed concerns that the HCRI contains “catastrophic” policies that would “throw Humboldt’s cannabis ordinances into chaos, with devastating effects on the environmental, economic, and equity goals of a functional cannabis program” (DeLapp & Gordon, 2023).

The most significant changes in the HCRI for existing operators would require any “expansion” of a permitted cultivation site to receive a new permit that would be subject to the standards of the HCRI, standards that might differ from the original permit. The measure defines “expanded” as any increase in the “size, intensity, or resource usage, of commercial cannabis cultivation activities on a parcel or premises where such activities have previously been permitted”, including “an increase in cultivation area, water usage, energy usage, or the number or size of any structures used in connection with cultivation” (HCRI, 2022, p. 8). The HCRI proposes that existing permitted farms over 3,000 sq. ft. that “expand” would be required to seek a conditional use permit (CUP), special permit, or equivalent discretionary permit (HCRI, 2022). The discretionary permits would be subject to environmental protection provisions pertaining to instream flows and wells;[150] an expanded diversionary water source forbearance period (extending the period from May 15th - October 31st to March 1st - November 15th); generator standards, and Category 4 road standards[151] (HCRI, 2022). HCGA argues that the potential application of Category 4 road requirements to pre-existing cultivation sites is the costliest new requirement in the HCRI. According to HCGA, “Local engineers have estimated the cost of Category 4 improvements at $200,000-$250,000 per mile, and many county-maintained roads do not meet a Category 4 standard. The requirements imposed by this section of the HCRI are simply non-functional and not possible for nearly all small farmers to comply with” (HCGA, 2023).

[149] *See* Humboldt Cannabis Reform Initiative (2022, September 21). Cannabis Reform Initiative: A New Vision for Cannabis Cultivation in Humboldt County.

[150] The County shall not approve any permit for new or expanded commercial cannabis cultivation if any well or wells proposed for use as part of the cultivation operation will reduce instream flows or otherwise adversely affect either (a) any watercourse or spring, or (b) any existing well used by a person other than the applicant.

[151] The Initiative would require that any access roads (including private roads) to the subject parcel that are without a centerline stripe will require a report by a licensed engineer certifying the road’s suitability for the proposed traffic. This is similar to the existing Ordinance 2.0 language which likewise requires access roads to meet a Category 4 standard, but self-certifications by property owners are currently allowable.

2. **Lake County ends Early Activation Permits and updates the cannabis tax structure.**

On July 23, 2021, the Lake County Board of Supervisors passed Interim Urgency Ordinance No. 3107 imposing a temporary prohibition on the Issuance of Early Activation Permits ("EAPs") (Cty. of Lake BOS, 2021). The county's stated reason for discontinuing the issuance of EAPs was to address a significant backlog of applications for these permits.

Other major amendments to Lake County's cannabis ordinance have come through changes to the county's taxes on cultivation. On April 12, 2022, the Lake County BOS temporarily reduced the cannabis cultivation tax rate by 50% and is applying it to the canopy area only, as opposed to the total cultivation area. The BOS also postponed the due date for the 2nd installment of 2021 cannabis cultivation tax payments to October 31, 2022, and all applicable late payment penalties would be suspended during the postponement. During their April 20, 2022, meeting the BOS also passed Resolution 2022-45 which temporarily reduced the cannabis cultivation tax rate for 2021 and 2022, and temporarily limited the cultivation tax to the canopy area for 2022 and 2023 (Cty. of Lake BOS, 2022).

3. **Mendocino BOS voted to Allow the DCC to Take Over the California Environmental Quality Act Review Process in Mendocino.**

The Mendocino Cannabis Alliance ("MCA"), a trade association representing cannabis operators in Mendocino County, submitted a letter to the DCC in February 2023, documenting the county's failure to establish a process capable of moving small and legacy cannabis cultivators toward annual state licensure, and asking the state to intervene ("Requesting Urgent Intervention to Prevent Mendocino Licensing Collapse," 2023). The DCC responded that they were prepared to "collaboratively engage with the County to address longstanding challenges confronting its legacy operators and California's legal market. This includes assessing inefficiencies under existing procedures for compliance with the California Environmental Quality Act (CEQA) and identifying a way by which the Department could (with the County's assistance) lead revitalized efforts to ensure timely compliance with CEQA for provisional license holders" (Elliott, 2023). On March 28, 2023, after serving two years in the role, the Cannabis Program Director, Kristin Nevedal, resigned (Cty. of Mendocino BOS, 2023-a), and the position has not been filled as of May 24, 2023.

On May 23, 2023, the Mendocino County Board of Supervisors voted unanimously to allow the DCC to take over the California Environmental Quality Act review process in Mendocino (Cty. of Mendocino BOS, 2023-b). The DCC will also provide $17 million in grant funding for the county to hire staff and purchase technology

to help expedite permit processing (Fertig, 2023). Cultivators will also have access to $5 million in grant funding to remediate their sites and comply with CEQA (Fertig, 2023).

4. Monterey Passed an Ordinance in 2022 Authorizing the Issuance of Temporary Commercial Cannabis Provisional Permits.

On June 1, 2022, Monterey passed an ordinance authorizing the issuance of temporary commercial cannabis provisional permits (Cty. of Monterey BOS, 2022). Since 2017, commercial cannabis applicants could operate in Monterey County pending completion of the conditions of their land use entitlement and Cannabis Business Permit, discussed above. The ordinance allows operators to obtain a new Provisional Cannabis Permit ("PCP") for a one-year term if they are making good faith efforts to obtain their county permits but are running into time constraints created by the state's phasing out of Provisional state licenses starting in 2023 (Cty. of Monterey BOS, 2022). During the initial term of a PCP, operators must complete high priority permitting requirements such as public water system requirements,[152] permanent restrooms, certain compliance conditions, and fire suppression requirements.[153] Operators with a Type 5 equivalent canopy must obtain an annual state license by January 1, 2024, to continue operating per state law. County staff reported that 18 land use permits, and 21 Cannabis Business Permits have been issued to Operators with Type 5 equivalent that have a State Provisional license that is expiring in 2023. If these Operators do not obtain their land use entitlement and CBPs, they will need to reduce the cultivation canopy to or below the threshold of 22,000 square feet until they receive local authorization. The potential licensed canopy that would be reduced in Monterey is 1,171,000 square feet (Cty. of Monterey BOS, 2023). It is unclear how many operators will be able to complete their local approval process in 2023 and keep their current acreage.

5. Nevada County Amended Ordinance to Allow Larger Canopy Area and Streamline the Permitting Process.

On January 10, 2023, the Nevada County Board of Supervisors unanimously voted to amend the Nevada County Cannabis Cultivation Ordinance initially approved in May 2019. The amended ordinance intends to promote new cannabis cultivation throughout the county after industry members asserted that the original ordinance placed too many restrictions to make cannabis businesses economically viable (Cty. of Nevada BOS, 2023). The amendments included changes to allow larger canopy areas and smooth the permitting processes. As of January 10, 2023, 207 cannabis cultivation

[152] Establishment of a permitted public water system pursuant to Monterey County Code Chapter 15.04 and California Health & Safety Code section 116525 et seq.
[153] Satisfaction of all fire suppression and fire alarm requirements per Monterey County Code section 18.09.030(U).

permits have been issued under the original ordinance for over three years since the original ordinance was passed in 2019 (Cty. of Nevada BOS, 2023).

Under the new ordinance, adjacent parcels under common ownership can combine their canopy areas, while support areas for all projects can be utilized as additional canopy areas or for additional purposes such as manufacturing and distribution (Cty. of Nevada BOS, 2023). Other changes to the ordinance include the introduction of parking requirements and modification of setbacks requirements, particularly the reduction of setback requirements for projects with shared property lines (reduced from 100 feet to 30 feet) and the increase of setback requirements for larger projects (increased to 150 feet for projects with 10,000-20,000 square feet of canopy space and 200 feet for projects with more than 20,000 square feet of canopy space) (Cty. of Nevada BOS, 2023). The amendment also adjusted the application process for new cultivation permits. Whereas previously, projects could be permitted by obtaining a Commercial Cannabis Permit (CCP) or an Administrative Development Permit (ADP), the amendment removed the CCP process and merged both pathways into the ADP process (Cty. of Nevada BOS, 2023).

6. Santa Barbara Amends Cannabis Ordinance and Reaches Its Acreage Caps.

By January 2022, Santa Barbara County's acreage caps[154] on cannabis operations were reached.[155] On February 15, 2022, the Santa Barbara Board of Supervisors voted to remove buildings for the "drying, curing, and trimming" of cannabis from the acreage caps for "grows" in the Carpinteria Valley and North County.

The county has had to contend with the fact that not all of the allotted acreage that was issued to applicants was being utilized for cannabis operations. The BOS amended the county's cannabis ordinance again in order to potentially free up unused land that had already been authorized for cannabis use under the acreage cap. These amendments created the potential for licensed cannabis operators to lose a portion of the acreage they secured under the cap if they failed to cultivate the total amount of acres, they applied for by their third license renewal (Hodgson, 2022). Growers would have three years to phase in the full acreage in their land use entitlements, and once that is reached would only be required to maintain 80% of that total. If they failed to reach their full acreage by their third license renewal, they could have the acreage they

[154] The acreage in Santa Barbara County was capped at 1,575 acres of cannabis cultivation, nurseries, and microbusinesses within the unincorporated area of Santa Barbara County and separately 186 acres of cultivation, nurseries, and microbusinesses in the Carpinteria Agricultural Overlay District.

[155] The latest records reveal that some acreage has become available: As of May 23, 2023, within Unincorporated Santa Barbara County 36.37 acres remain: https://www.countyofsb.org/1177/Unincorporated-Santa-Barbara-County. As of April 25, 2023, in the Carpinteria Agricultural Overlay District, 31.38 acres remain: https://www.countyofsb.org/1176/Carpinteria.

hadn't cultivated go back into the acreage cap to be offered to the next person in line on the capacity waiting list.

Additional amendments stemming from issues related to the acreage cap have also been made as the county struggles to boost cannabis tax revenue. On February 15, the BOS voted[156] to remove processing buildings for the drying, curing, and trimming of cannabis from the acreage caps for "grows" in the Carpinteria Valley and North County citing "a substantial loss of tax revenue" due to the volume of Santa Barbara grown cannabis that is being trucked out of the county for processing (Burns, 2022). During their August 16, 2022, meeting, the BOS amended the county ordinance to require all cannabis cultivation facilities to apply for and obtain a Conditional Use Permit (CUP) beginning January 31, 2023 (Cty. of Santa Barbara BOS, 2022).

7. Santa Cruz County amends setback restrictions.

On May 10, 2022, the BOS recommended a public hearing to consider in concept setback amendments for commercial cannabis cultivation in the Commercial Agricultural Zone District and technical amendments and making findings of exemption from the California Environmental Quality Act, schedule the ordinances for second reading and final adoption on May 24, 2022. The changes were approved in concept and included an increase in the current setbacks for outdoor cultivation activities to residential structures on neighboring parcels from 100 to 400 feet.[157] These changes came after the BOSs imposed a temporary moratorium on the issuance of cannabis business licenses on parcels within 500 feet of residential structures to address tensions between homeowners and cannabis cultivators.[158]

[156] The Board of Supervisors voted 4-1 in concept, with Chair Joan Hartmann opposed.

[157] Additional changes included various technical changes around data required for licensure and legal notifications. The proposed changes: (1) allow for the licensing official to designate some of their responsibilities to staff; (2) change the verification of good standing with County requirements to be a responsibility of the CLO and not the applicant; (3) require the Sheriff or their designee to approve all security plans; and (4) reduce the redundancy in some of the paperwork requirements. There are various grammatical changes throughout the chapter and some technical changes to the appeal process as recommended by County Counsel. Changes were officially adopted by the BOS on May 24, 2022.

[158] *See* Merzbach, H. (2021, October 19). "Trying to find equilibrium": County weighs in on weed-growing tussle with temporary license moratorium - Lookout Local Santa Cruz. *Lookout Local Santa Cruz*.

8. San Luis Obispo Commissioned a Programmatic Environmental Impact Report.

Initially, SLO County did not prepare or adopt an EIR, and in the "permanent" cannabis ordinance (Ordinance No. 3358, which replaced and repealed the Interim/Urgency Ordinance No. 3334), the language stated that the "amendments are exempt from the California Environmental Quality Act (CEQA)." On June 22, 2021, by a 3-2 vote, the San Luis Obispo County Board of Supervisors reversed an environmental review policy that had put the onus on cannabis applicants to produce full CEQA analyses for their projects. Instead, SLO County will commission a programmatic environmental impact report for the county that cultivators would ideally be able to tier off (*San Luis Obispo Board of Supervisors Meeting*, June 22, 2021). The cost to prepare the program EIR was estimated to be $850,000 by a 2021 Countywide Cannabis program Update prepared by the SLO County Counsel's Office, Department of Planning and Building, and the Sheriff's Office (San Luis Obispo County Counsel's Office et al., 2021).

9. Sonoma County Initiates Comprehensive Cannabis Program Update.

In May of 2021, the Sonoma County Board of Supervisors directed staff to complete a comprehensive update of the cannabis program, as well as to prepare a programmatic Environmental Impact Report for the county's cannabis ordinance. Resources for the first phase of the *Comprehensive Cannabis Program Update* were approved by the BOS the following month. County staff has already relaunched public outreach and engagement concerning the new cannabis ordinance by holding virtual visioning sessions, small group outreach sessions, and conducting a county-wide survey.[159] Other updates include amendments made to the County's Cannabis Business Tax Ordinance to reduce the cultivation tax rates by 45% effective (with a sunset on the reduction on June 20, 2023) and amend language for consistency and clarification, including clarifying language regarding operator audits and providing financial records, including gross receipts data, to County consultants (Cty. of Sonoma, n.d.-d).

10. Yolo Repealed and Replaced Its Cannabis Ordinance.

On September 14, 2021, the Yolo County Board of Supervisors ("BOS") voted to replace its entire cannabis ordinance by passing the proposed Cannabis Land Use

[159] The County prepared and released a Notice of Preparation (NOP) on February 6, 2023, held a virtual public scoping meeting on March 8, 2023, and provided a public comment period through March 23, 2023, to allow an opportunity for agency staff and interested members of the public to submit written and verbal comments on the scope of the environmental issues to be addressed in the EIR. The NOP provides a brief summary of the Update, the County's preliminary identification of the potential environmental issues to be analyzed in the EIR, and information on how to provide comments. The scoping meeting included a presentation on elements of the Cannabis Program Update, a summary of the NOP, and the broader CEQA process to come (Cty. of Sonoma, n.d.-b).

Ordinance (“CLUO”) and certifying the ordinance’s Final EIR (Yolo Cty. Cannabis Land Use Ordinance § 8-2.1401). The Yolo County BOS approved the CLUO, effectively repealing and replacing the earlier cannabis ordinance. The CLUO contains more comprehensive zoning requirements.

The CLUO prohibits commercial cannabis cultivation from residential and certain commercial zones, limiting grow sites to agricultural, industrial, and other commercial zones. Yolo County’s initial ordinance did not require applicants to cultivate cannabis to participate in any type of site-specific environmental review process, nor did the ordinance exempt operators from any CEQA requirements via the State statutory exemption pursuant to Business and Professions Code § 26055(h). Seventy-two ministerial permits were approved under the original ordinance; however, none of the permittees had received Annual licenses from the State. Originally, under the CLUO, existing licensees were required to apply for a new use permit between March 1, 2022, and December 16, 2022, and new licensees could apply for available use permits or licenses (if any), only after the processing of existing licensees was “substantially underway” (Yolo Cty. Cannabis Land Use Ordinance § 8-2.1404). These dates were amended later by the BOS to allow new licensees to apply until October 15, 2023. The County intends to process existing CUP licenses by June 30, 2023 (Cty. of Yolo BOS, 2022).

On December 7, 2021, nearly three months after its initial passing, major amendments to the CLUO were approved by the Board of Supervisors. Key changes included that permit holders may now have more than one permit type authorized under one Use Permit, meaning that a grower could also have a nursery permit, for example. The maximum Cannabis Use Permits issued was limited to 132, and within that number cultivation permits are limited to 95. Permit types include regional-serving nurseries[160], regional-serving processing facilities, manufacturing, testing, distribution, retail, and microbusiness, all of which are limited to between 7 - 2 permits in the county (Yolo Cty. Cannabis Land Use Ordinance §. 8-2.1406G). Additional updates and amendments have continued to be made to the CLUO since the first round of changes in December 2021. On March 22, 2022, the Board of Supervisors accepted the Cannabis Regulation Ad-Hoc Committee’s recommendation to allocate Cannabis Use Permits using a merit-based system as opposed to a lottery.

[160] Nurseries or processing facilities serving only the cultivation approved under the same Use Permit are not subject to these limits.

VII. Findings from Data Analysis

In Part VII, we discuss the results from the quantitative analysis of our project observation census database. We begin with a discussion of data availability (A). We then proceed through a series of analyses examining the regulatory outcomes of our commercial cannabis cultivation observations, including approval timeframes, hearings, and appeals, CEQA determinations, and terms and conditions of approval (B-H). We conclude this section by evaluating these same indicators relative to pre-existing commercial cannabis cultivators (I).

A. Data Availability can be Challenging

At the center of our quantitative analyses is our project observation census database. As described previously in Section V. Materials and Methods, we constructed this novel dataset with information that we largely compiled and coded from textual, documentary sources which jurisdictions prepared in reviewing and approving each of our identified commercial cannabis cultivation observations. To the greatest extent possible, we relied on these unconventional data sources rather than structured data provided directly by jurisdictions. We made this methods decision, because these documents are themselves artifacts of the local regulatory processes we are studying and are uniquely positioned to elucidate how jurisdictions apply those processes at the project scale.

This methodological approach, of course, depends on both the existence of such documentation and the research team's ability to access it. From the start of our research, we quickly learned that data availability varied considerably across our study jurisdictions. For instance, some jurisdictions maintained dedicated public access portals searchable by unique project identifiers or other criteria, while other jurisdictions maintained a limited online presence or cumbersome applications intended mainly for noticing hearings. Furthermore, some jurisdictions prepared thousands of pages of documentation for each approved project (of which we reviewed but a tiny fraction), while in others a lone permit certificate may have constituted the entirety of documentation prepared for an observation. This translates into very detailed data profiles for observations where data availability is strong and project documentation rich but more limited, less reliable information where that is not the case.

Strong data management practices are integral to responsive public policy and meaningful policy analysis. Because data availability (or the lack thereof) has had a significant impact on the research team's work, we developed a rubric for quantifying data availability across our study jurisdictions. We summarize the rubric in Table 21. The rubric conceptualizes data availability as a function of two variables: (1) the openness and accessibility of data pertinent to our study; and (2) jurisdictions'

responsiveness to our requests for that data. Each variable is composed of several factors to which we assigned numeric values based on our experience in researching each jurisdiction. This resulted in a summed "score" for each variable which we could plot as (x, y) coordinate pairs to compare jurisdictions. (Higher values indicate higher data availability.) The range of possible values for each factor varies slightly but, in a manner, reflects the factor's importance in completing our research. In using two variables to measure data availability, we can credit highly collaborative jurisdictions that are less well-resourced and lack public-facing data systems but are able to provide information through other means. This rubric summarizes our own subjective experience in working with our study jurisdictions and also offers a prototype for evaluating local governments' data accessibility.

Table 21: SUMMARIZING THE ASSESSING DATA AVAILABILITY RUBRIC

COMPONENT I: DATA OPENNESS AND ACCESSIBILITY			COMPONENT II: JURISDICTION RESPONSIVENESS		
FACTOR	**SUMMARY**	**SCORE RANGE**	**FACTOR**	**SUMMARY**	**SCORE RANGE**
A. Jurisdiction-Provided Dataset	Did the jurisdiction provide an initial dataset of potential observations? Was it a useful guide for preliminary data collection?	0-3	E. Jurisdiction Responsiveness	Could the research team efficiently submit data requests? Did the jurisdiction respond in a timely manner?	0-3
B. Public Access Portal	Does the jurisdiction maintain a dedicated public access portal?	0-3	F. Quality of Response	Was the jurisdiction's response thorough, and did it substantially conform to the parameters of the request?	0-3
C. Online Document Availability	Does the jurisdiction consistently upload project documentation to its public access portal or other online applications?	0-1	G. Quality of Documentation	Did the project documentation contain thorough, accurate information and analysis for coding into our master database, including dated review milestones?	0-4
D. Spatial Data	Does the jurisdiction maintain a publicly-available and downloaded parcels geometry spatial dataset?	0-1			

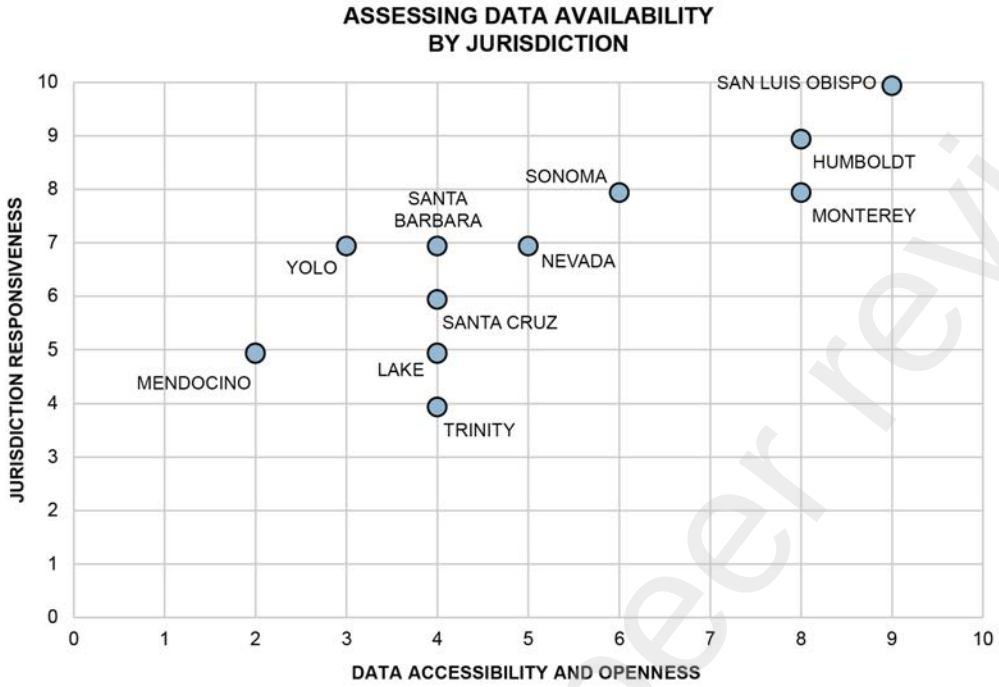
The first variable is data openness and accessibility, which captures how proactive and sophisticated jurisdictions are in open data. This variable includes four factors. The first factor considers whether the jurisdiction provided an initial dataset of approved cannabis cultivation projects at the start of our research. We include this factor here, because these initial datasets were critical guides for searching through

online sources to find project documentation on our own and/or for formulating subsequent data requests. The next two factors evaluate those online sources themselves, including their ease of use and how consistently jurisdictions published project documentation to them. The last factor indicates whether a jurisdiction had a publicly-accessible parcels geometry spatial dataset, which we required for conducting analyses relative to measurable site conditions. While these factors reflect the specific contours and needs of this research project, this half of the rubric could be easily modified to apply to other use cases.

The second variable in the rubric is jurisdiction responsiveness as a proxy for a jurisdiction's internal ability to manage its public records and make them available for public review. This variable includes three factors. The first two assess whether the jurisdiction responded to our requests in a timely manner and whether those responses were thorough and consistent with the parameters of our request. The third factor evaluates the quality of the provided documentation itself. Our research required granular, detailed information to understand how project proposals interact with local review practices to influence regulatory outcomes. This (often qualitative) information is generally not amenable to tabular data structures or trackable in project management systems, so the project documents themselves are the data sources. Therefore, if jurisdictions do not consistently prepare high quality and analytical project documents, then they are not able to readily respond with that information in an appropriate manner.

We completed the rubric for each study jurisdiction, and we visualize the results of the rubric exercise in Figure 6. While no jurisdiction completely lacked public-facing data or was non-responsive to the research team, the results indicate a wide range of data availability. This variability does not necessarily correlate with geography, approval process typology, the volume of project observations, or expectations for "well-resourced" jurisdictions. Indeed, many jurisdictions have room for considerable improvement while others appear to be managing fairly well despite the challenges of establishing and maintaining functional local cannabis regulatory programs. Most jurisdictions fall somewhere in between.

Figure 6: DATA AVAILABILITY BY JURISDICTION



While this analysis on its own cannot reveal the whole narrative, we think it notable that the data availability results do track to some extent with metrics we discuss in further sections that might be indicative of the successes (or challenges) of a jurisdiction's local cannabis regulatory system. For example, Humboldt and San Luis Obispo Counties rank at the top of our results, and they produced the most observations among their regional peers. Humboldt produced over 500 valid observations during our study period, while its neighbors in the Emerald Triangle, Mendocino, and Trinity Counties, produced just three observations among themselves. Mendocino and Trinity also rank the lowest in our data availability assessment. San Luis Obispo produced more than 30 observations during our study period, at least double that of other Central Coast jurisdictions Monterey (4 observations), Santa Barbara (9), and Santa Cruz (12).

This suggests that some jurisdictions are better equipped to establish local regulatory systems in the first place and then manage proposed development projects through those systems in a manner that is well-considered, rigorous, and transparent. This then translates into better data availability (and enhanced ability for policy analysis) on the back end of that process. If a jurisdiction cannot manage data and track projects well, then this may delay the entire review process from application to approval, especially in the complex and evolving sphere of cannabis regulation in California. Less

sophisticated and well-resourced cannabis operators are most likely to be affected by those negative impacts as they accrue throughout the local review process. Therefore, local governments and applicants alike could benefit if jurisdictions adopted data-conscious and data-forward cannabis regulatory practices from the start.

B. Quantifying Observations by Jurisdiction

In this section, we quantify the number of valid observations we identified through our research, and we discuss these outcomes relative to other pertinent metrics. Table 22 provides the count of observations by jurisdiction, as well as the approved cannabis canopy area resulting from these observations.

In total, we identified 728 commercial cannabis cultivation projects in nine study jurisdictions approved between 2018 and 2020. Importantly, we note that we did not identify any projects in Trinity or Yolo Counties during our study period that satisfied our definition of an observation, which requires eligibility for an annual state license. Trinity had issued local Commercial Cannabis Licenses during our study years, but these permits did not comply with CEQA review requirements for annual state licensing as discussed above. Yolo County issued local permits that were also ineligible for annual state licenses because the jurisdiction employed a ministerial approval process that was incompatible with state environmental regulations as discussed further above. For the same reasons as in Yolo, we also excluded from our analyses local Cannabis Cultivation Permits issued under the ministerial branch of Sonoma County's commercial cannabis program.

Table 22: OBSERVATION COUNTS AND RESULTING APPROVED CANNABIS CANOPY AREA BY JURISDICTION

JURISDICTION	# OBSERVATIONS	# OBSERVATIONS AS % TOTAL OBSERVATIONS	APPROVED CANOPY AREA (ACRES)	APPROVED CANOPY AREA AS % TOTAL CANOPY AREA	MEAN CANOPY AREA (ACRES)
ALL JURISDICTIONS	728	100%	612.1	100%	0.84
HUMBOLDT	542	74.5%	164.57	26.9%	0.3
LAKE	60	8.2%	118.36	19.3%	1.97
MENDOCINO	3	0.4%	0.64	0.1%	0.21
MONTEREY	4	0.5%	34.18	5.6%	8.55
NEVADA	54	7.4%	8.37	1.4%	0.16
SAN LUIS OBISPO	31	4.3%	52.56	8.6%	1.7
SANTA BARBARA	9	1.2%	204.25	33.4%	22.69
SANTA CRUZ	12	1.6%	23.7	3.9%	1.97
SONOMA	13	1.8%	5.44	0.9%	0.42

Humboldt County approved by far the most observations (542) among our jurisdictions during the study period, accounting for nearly three-quarters of all observations. By contrast, its Emerald Triangle peer, Mendocino County, approved only three observations (two of which are associated with Appendix G CEQA checklists) that

qualify for a state annual state license. Among Central Coast jurisdictions,[161] San Luis Obispo County approved the most observations (31), while its neighbor, Monterey County—which employs a dual approval process requiring both a land use entitlement and a Cannabis Business Permit—issued both required approvals to only four projects.

However, evaluating outcomes by the observation count alone can be deceiving, while comparing these counts to the cannabis canopy area they authorize reveals critical patterns. In total, our 728 observations authorized over 600 acres of canopy area. Humboldt approved the most observations (nearly 75 percent of the total), which resulted in approximately 164 acres, or about one-third of all approved canopy area. Conversely, Santa Barbara approved the most canopy area (over 200 acres or about an additional one-third of the total) through just nine observations (about one percent of the total). On average, cannabis farms in Humboldt span about one-third of an acre of canopy area (approximately 14,000 square feet), while cannabis farms in Santa Barbara during our study period averaged nearly 23 acres of canopy area (over 70 times that in Humboldt), achieved through the "stacking" of dozens of state licenses on a single project site.[162]

These findings are consistent with Dillis et al. (2021), who defined two distinct commercial cannabis cultivation typologies emerging in California: (1) small-scale, owner-operated farms in Northern California and (2) industrial-scale cannabis cultivation in jurisdictions with histories of traditional agriculture elsewhere. In Northern California jurisdictions with long histories of cannabis cultivation, small farms were necessary to remain discreet and avoid law enforcement attention. Notably, Humboldt County's commercial cannabis regulations enforce this small-scale typology as they prohibit farms over eight acres (which is itself well above the jurisdiction average).[163] In contrast, Santa Barbara is a traditional agricultural county, with cannabis farms often occupying extensive, pre-existing agricultural facilities converted from other crops (such as cut flowers) after legalization. Santa Barbara has a nascent cannabis industry, and large cannabis farms did not exist in Santa Barbara prior to legalization.

Dillis et al. (2021) also estimated that farms in the 90th percentile for cultivation area accounted for 60% of the total cultivation area statewide. Our analyses show roughly comparable results. The four Central Coast jurisdictions—Monterey, San Luis Obispo, Santa Barbara, and Santa Cruz, each with mean canopy areas at least double

[161] Central Coast jurisdictions include San Luis Obispo, Santa Barbara, Santa Cruz, and Monterey.
[162] By 2023, Santa Barbara County has permitted two of the largest outdoor cannabis cultivation farms in the entire state: Farming First Holdings, LLC, which has established 134 acres of outdoor cultivation in the county, and Glass House Brands, which received full local and state approval in 2023 to begin cultivation at its 5.5 million square foot operation. *See* Black, L. (2023, April 30). 'Unprecedented': The biggest Calif. pot farm keeps getting bigger. *SFGATE*.; Mozingo, J. (2019, June 12). The world's largest pot farms, and how Santa Barbara opened the door - Los Angeles Times. *Los Angeles Times. See also* The Times Editorial Board. (2017, December 16). California's new pot rules violate the promise to small farmers - Los Angeles Times. *Los Angeles Times*.
[163] Humboldt Cty. Code § 313-55.4.5.4 and § 314-55.4.8.10.

that of the overall mean—account for over 50 percent of the total canopy through approval of just 56 observations.

While the Emerald Triangle jurisdictions (Humboldt, Mendocino, and Trinity) do face similar challenges in bringing unregulated legacy cultivators into the regulated market (such as comparable rural landscapes and proximity to sensitive watersheds and species), they also had stark differences in terms of outcomes. Humboldt County has demonstrated the most success in approving observations (542), far exceeding that in Mendocino (3) and Trinity (0) during our study period. These differences in outcomes may reflect differences in local capacity to set up new regulatory programs and/or local variation in political disagreement over cannabis cultivation. Trinity has a much smaller population and overall budget than Humboldt and Mendocino, for instance. Additionally, Trinity's vote on Proposition 64 was much closer, showing more political disagreement over legalized cannabis than in the other two counties. In contrast, jurisdictions outside the Emerald Triangle have much larger budgets and populations, so they may be better able to support the investments required for creating a new regulatory program from scratch. Table 23 provides comparative statistics for assessing how demographic and political factors may have affected regulatory outcomes in our study jurisdictions.

Table 23: SELECTED DEMOGRAPHIC AND POLITICAL CHARACTERISTICS BY JURISDICTION				
JURISDICTION	**TOTAL POPULATION (2022)**	**TOTAL LAND AREA IN SQUARE MILES (2022)**	**PERCENTAGE "YES" VOTE ON PROPOSITION 64 (2016)**	**JURISDICTION BUDGET (2021-2022)**
HUMBOLDT	136,301[164]	3,568.19[1]	58.4%[165]	$505.63M[166]
LAKE	68,163[167]	1,256.55[4]	58.6%[2]	$319.39M[168]
MENDOCINO	91,601[6]	3,506.82[6]	54.3%[2]	$348.82M[169]
MONTEREY	439,035[170]	3,281.72[8]	62.6%[2]	$1,673.32M[171]
NEVADA	102,241[172]	957.76[10]	52.9%[2]	$297.25M[173]
SAN LUIS OBISPO	282,424[174]	3,300.85[12]	57.7%[2]	$679.43M[175]
SANTA BARBARA	448,229[176]	2,733.94[14]	61.5%[2]	$1,326.8M[177]
SANTA CRUZ	270,861[178]	445.11[16]	69.9%[2]	$864.45M[179]
SONOMA	488,863[180]	1,575.63[18]	59.1%[2]	$2,115.11M[181]
TRINITY	16,112[182]	3,179.27[20]	50.1%[2]	$136.04M[183]

This data and analysis have limitations. First, our observation database only includes cannabis cultivation projects that successfully completed the local review process. It does not reflect applicants who started the application process but subsequently withdrew, which could clarify how well these processes function in practice. For example, a 2021-2022 Humboldt Civil Grand Jury Report stated that since September 2016, "21 applications have been denied and 693 have been withdrawn, closed, or canceled." (*Humboldt County Civil Grand Jury Report: Permitted (Eventually) – a Review of the Cannabis Permitting Process in Humboldt County*, 2022, p. 5).

[164] Census Bureau: QuickFacts Humboldt County, California.
[165] Statewide Summary by County for State Ballot Measures.
[166] County of Humboldt. *County of Humboldt: Budget in Brief*. HumboldtGov.org.
[167] Census Bureau: QuickFacts Lake County, California.
[168] County of Lake. *Lake County California: Adopted Budget*. LakeCountyCA.gov.
[169] County of Mendocino. *FY 2021-22 Adopted Budget*. MendocinoCounty.org.
[170] Census Bureau: QuickFacts Monterey County, California.
[171] County of Monterey. *Budget in brief fiscal year 2021-22 - Monterey County, California*. Monterey.CA.US.
[172] Census Bureau: QuickFacts Nevada County, California.
[173] County of Nevada. *County budget*. County Budget | Nevada County, CA.
[174] Census Bureau: QuickFacts San Luis Obispo County, California.
[175] County of San Luis Obispo. *FY 2021-22 Final Budget*. FY 2021-22 County & Special District Budgets - County of San Luis Obispo.
[176] Census Bureau: QuickFacts Santa Barbara County, California.
[177] County of Santa Barbara. *Recommended Budget FY 2021-22*. CountyofSB.org.
[178] Census Bureau: QuickFacts Santa Cruz County, California.
[179] County of Santa Cruz. *Adopted Budget | FY 21-22*. Santa-Cruz.ca.us.
[180] Census Bureau: QuickFacts Sonoma County, California.
[181] County of Sonoma. *Adopted Budget Fiscal Year 2021-22*. SonomaCounty.ca.gov.
[182] Census Bureau: QuickFacts Trinity County, California.
[183] County of Trinity. *Adopted Budget*. TrinityCounty.org.

Second, from data collection, we are aware of several Humboldt operators who canceled their approved projects due to their inability to comply with ongoing terms and conditions of approval. We do not track or code for what occurs after an observation's approval, though this could also be insightful in understanding regulatory outcomes.

Third, we do not consider our identified observations relative to the number of pre-existing legacy cultivators or illicit cultivators in each jurisdiction, as discussed above, though this would be an important indicator of how effectively and efficiently local cannabis programs are transitioning pre-existing growers into the regulated market. Nevertheless, these findings suggest that jurisdictions have had variable success in implementing functional local cannabis regulatory systems during our study period. They also indicate that the commercial cannabis industry functions very differently in different California regions, reinforcing the small-scale versus large-scale dichotomy first identified by other researchers. This complicates cannabis industry research and the crafting of widely applicable best practices, since jurisdictions allowing (or even encouraging) considerably different cannabis cultivation operations will require different approaches to regulation.

C. Summarizing Local Approval Timeframes by Jurisdiction

In this section, we provide summary statistics for local approval timeframes associated with our observations. We measure approval timeframes as the number of months from the earliest application date associated with any component of the observation (excluding any pertinent pre-application or pre-registration periods) to the approval date associated with the final approval required for local compliance. Table 24 summarizes the distribution of approval timeframes overall and by jurisdiction.

Table 24: DISTRIBUTION OF APPROVAL TIMEFRAMES (IN MONTHS) BY JURISDICTION

JURISDICTION	TOTAL OBSERV-ATIONS	# OBSERV-ATIONS W/ COMPLETE TIMEFRAME DATA	MEAN	STAN-DARD DEVIA-TION	MIN-IMUM	25TH PERCEN-TILE	MEDIAN	75TH PERCEN-TILE	MAX-IMUM
ALL JURISDICTIONS	728	703 (96.6%)	24	13	<1	15	25	33	56
HUMBOLDT	542	540 (99.6%)	28	11	3	19	29	37	56
LAKE	60	38 (63.3%)	10	7	2	6	8	15	27
MENDOCINO	3	3 (100%*)	23	6	19	19	20	25	30
MONTEREY	4	4 (100%)	26	13	9.5	21	28	33.5	41
NEVADA	54	54 (100%)	8	4	2	4	6	10	19
SAN LUIS OBISPO	31	30 (96.8%)	16	6	4	13	16	20	27.5
SANTA BARBARA	9	9 (100%)	13	5	9	9	11	15	24
SANTA CRUZ	12	12 (100%)	10	6	<1	7	11	13	21
SONOMA	13	13 (100%)	23	12	4	20	25	33	39

*Because all three Mendocino observations lack data for the earliest application date, we use proxy dates to estimate timeframes.

We note that not all observations have complete timeframe information, and we quantify the proportion that do in Table 24. For example, we were unable to determine the earliest application dates for over one-third of observations in Lake County, so those observations are excluded from timeframe-based analyses. Additionally, we were unable to determine the earliest application dates for all observations in Mendocino County, as county staff confirmed that the jurisdiction's internal tracking systems do not

record application filing dates.[184] While we could have extrapolated application dates in Mendocino by reviewing paper application files,[185] this is outside our research protocol, and we instead utilized proxy dates based on submission deadlines given in Mendocino's ordinances to make these calculations.[186] We also reiterate that our study period is 2018 to 2020, so observations with exceedingly long approval timeframes not captured by this scope cannot be included in these analyses.

The mean approval timeframe across all observations in all jurisdictions was 24 months. This is driven largely by the high volume of observations in Humboldt County, which also has the highest mean approval timeframe of 28 months (approximately 16 percent greater than the overall mean). Humboldt's long approval timeframes are not necessarily an indication of systemic dysfunction in the local review process, since Humboldt approved the most observations (542) among our study jurisdictions by far, nearly ten times more than the next highest jurisdiction (Lake County with 60 observations) and far outstripping the negligible outcomes in its neighboring legacy jurisdictions, Mendocino, and Trinity Counties. In understanding Humboldt's long timeframes, we note that the jurisdiction's commercial cannabis ordinances required pre-existing growers to apply by specified deadlines to be eligible for the special accommodations provided for legacy cultivation sites. This means that much of the applicant pool was already determined at the beginning of the jurisdiction's program, creating a narrow review pipeline which all these applicants needed to progress through simultaneously.

Nevada County saw the lowest mean approval timeframes at 8 months. This is true even though Nevada's regulatory system requires at least two approvals for local compliance (a discretionary land use entitlement and an Annual Cannabis Permit). This timeframe is nearly 70 percent shorter than the overall mean and is about 25 percent shorter than the next lowest jurisdictions, Santa Cruz, and Lake County (at 10 months). Though not part of the Emerald Triangle, Nevada is somewhat like Humboldt geographically and has a documented history of legacy cannabis cultivation, yet Humboldt applicants saw mean approval timeframes over 3.5 times longer than those in Nevada. This may be in part due to the favorable political climate in Nevada. This county is an outlier in our study because it is the only jurisdiction to successfully advance cannabis regulation electorally.[187] Because voters were supportive of enacting

[184] Telephone conference on Friday, July 9, 2021, between PI Eric Biber and Mendocino staff member Caitlin Shafer.
[185] Telephone conference on Friday, July 9, 2021, between PI Eric Biber and Mendocino staff member Caitlin Shafer.
[186] Phase 1 applications were accepted until December 31, 2018, and from Monday, April 1, 2019, until Friday, October 4, 2019 (Mendocino Cty. Code §10A.17.080(A)(1)). We use October 4, 2019, as the proxy date for Phase 1 observations. Several of the observations are Phase 2 observations (Type C-A, 1A and Type 2A permits for indoor cultivation, and Type C-B, 1B and 2B permits for mixed-light cultivation) and their application period closed on February 28, 2022. We use February 28, 2022, as the proxy date for Phase 2 observations.
[187] In January 2016, 59.45% of the voters opposed an outdoor cannabis ban, Measure W (Ballotpedia, 2016). As a result, the Board of Supervisors endeavored to develop outdoor cannabis regulations. Between 2016 and 2019, the County created a Community Advisory Group ("CAG") including cultivators and community members to advise the Board of Supervisors on developing cannabis

commercial cannabis regulations, the jurisdiction could adopt an ordinance implementing a straightforward application process that did not require a public hearing. Public approval may have lent legitimacy to the ordinance, resulting in less public opposition and a faster local review process overall.

It is also notable that the variation in approval timeframes does not seem to correspond to geography. Humboldt and Nevada, both in Northern California, have the longest and shortest mean timeframes, respectively. Sonoma County's mean timeframe (23 months) is several months shorter than Humboldt's, but it is over double that in neighboring Lake (at 10 months on average). Among Central Coast jurisdictions,[188] the outcomes are similarly disparate. Monterey County has the longest mean approval timeframe at over 26 months, more than double that in Santa Barbara and Santa Cruz Counties, all three of which utilize similar regulatory systems which require cannabis-specific local business licensing. San Luis Obispo County, which employs an entitlement-based system, took 16 months on average to approve its observations. In the previous section, we discussed how our observations conform to the small-scale versus large-scale cultivation typologies defined by other researchers. Nevertheless, our analysis suggests that cultivation typology is not a reliable predictor of approval timeframes, with jurisdictions taking vastly different time periods to approve similar commercial cannabis projects than their regional peers.

To emphasize this point further, we also summarized approval timeframes by farm size, measured by canopy area (Table 25). We used one acre of cannabis canopy area as the break between smaller- and larger-scale projects, which corresponds to the maximum area authorized under a state medium outdoor cultivation license (the largest license type available during our study period). It is also just slightly larger than our observed mean canopy area of 0.85 acres (approximately 37,000 square feet). We would expect to see longer mean timeframes for observations associated with greater canopy area, since larger projects are associated with greater impacts in terms of water, energy use, cannabis odor, travel demand from workers, et cetera. We would also expect this to be especially true in jurisdictions where canopy area is a factor in determining the local approval types required of a project (as in Humboldt, Lake, and Sonoma), with larger projects triggering more review-intensive land use actions (like conditional use permits).

regulations (Nevada Community Development Agency [NCDA], n.d.-b). In June 2018, the County began the process of hiring consultants to prepare an EIR, and by May 14, 2019, the Board of Supervisors adopted County Ordinance No. 2467 and an Environmental Impact Report. The County began accepting applications immediately and issued the first cannabis permit in June 2019.

[188] Central Coast jurisdictions include San Luis Obispo, Santa Barbara, Santa Cruz, and Monterey.

Table 25: MEAN APPROVAL TIMEFRAMES (IN MONTHS) BY APPROVED CANOPY AREA					
JURISDICTION	**OVERALL MEAN TIMEFRAME**	**MEAN TIMEFRAME FOR < ONE ACRE GROWS**	**MEAN TIMEFRAME FOR <ONE ACRE GROWS AS % OVERALL MEAN**	**MEAN TIMEFRAME FOR >= ONE ACRE MEAN**	**MEAN TIMEFRAME FOR >= ONE ACRE GROWS AS % OVERALL MEAN**
ALL JURISDICTIONS	24.3 MONTHS	25.1 MONTHS (n=630)	+3.1%	17.7 MONTHS (n=73)	-27.3%
HUMBOLDT	28 MONTHS	28.1 MONTHS (n=520)	+0.5%	23.1 MONTHS (n=20)	-17.4%
LAKE	10.2 MONTHS	9.3 MONTHS (n=26)	-9.6%	12.4 MONTHS (n=12)	+20.7%
MENDOCINO	22.9 MONTHS	22.9 MONTHS (n=3)	0.0%	NO DATA	N/A
MONTEREY	26.5 MONTHS	NO DATA	N/A	26.5 MONTHS (n=4)	0.0%
NEVADA	7.6 MONTHS	7.6 MONTHS (n=54)	0.0%	NO DATA	N/A
SAN LUIS OBISPO	16 MONTHS	12.8 MONTHS (n=12)	-19.8%	18.1 MONTHS (n=18)	+13.3%
SANTA BARBARA	13.2 MONTHS	14.9 MONTHS (n=1)	+13.4%	13 MONTHS (n=8)	-1.5%%
SANTA CRUZ	10.1 MONTHS	7.7 MONTHS (n=4)	-23.9%	11.3 MONTHS (n=8)	+12.0%
SONOMA	23.4 MONTHS	25 MONTHS (n=10)	+7.0%	17.9 MONTHS (n=3)	-23.4%

However, our results in the aggregate do not align with what we expected. Overall, observations with one acre of canopy area or more experience mean approval timeframes that are over 30 percent shorter than the overall mean, and smaller projects see mean approval times that are about three percent longer. Among jurisdictions where a comparison is possible, the pattern splits evenly. Smaller projects in Lake, San Luis Obispo, and Santa Cruz experience shorter-than-mean approval timeframes on average than larger ones. On the other hand, smaller farms see greater-than-mean approval timeframes in Humboldt, Santa Barbara, and Sonoma. This suggests that smaller growers practicing legacy-style cannabis agriculture may be at a systematic disadvantage in achieving local compliance compared to larger-scale and better-

resourced growers on average, even in jurisdictions like Humboldt, with a large proportion of pre-existing grows and a well-functioning regulatory system.

We also summarized approval timeframes by zoning designation and jurisdiction (Table 26). A given observation may be associated with multiple zoning designations. All counties with observations except Mendocino had permits approved in agricultural zones, with a mean approval timeframe of 22.5 months. Only Humboldt approved projects in industrial zones and those projects took the longest to be approved, at 37.5 months. Humboldt, Lake, Mendocino, and San Luis Obispo approved projects in rural residential, with a mean approval timeframe of 12.9 months. Only Humboldt approved projects in Timberland zones, with a mean approval time of 30.9 months.

Table 26: MEAN APPROVAL TIMEFRAMES (IN MONTHS) BY ZONING DESIGNATION CATEGORY* AND JURISDICTION

JURIS-DICTION	# OBSER-VATIONS W/ COMPLETE TIMEFRAME DATA	OVERALL MEAN	AGRI-CUL-TURAL MEAN	COM-MER-CIAL MEAN	INDUS-TRIAL MEAN	RESI-DEN-TIAL MEAN	RURAL RESI-DEN-TIAL MEAN	RE-SOURCE MEAN	TIMBER MEAN	UN-CLAS-SIFIED MEAN
ALL JURIS-DICTIONS	703 (96.6%)	24.8	22.5	10.8	37.5	17.7	12.9	25.1	30.9	28.0
HUMBOLDT	540 (99.6%)	28.5	28.7	20.2	37.5	17.7	34.0	26.6	30.9	28.0
LAKE	38 (63.3%)	10.4	7	6.1	N/A	N/A	11.1	N/A	N/A	N/A
MENDOCINO	3 (100%)	23.3	N/A	N/A	N/A	N/A	23.3	N/A	N/A	N/A
MONTEREY	4 (100%)	26.9	26.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NEVADA	54 (100%)	7.7	7.5	N/A	N/A	N/A	N/A	9.4	N/A	N/A
SAN LUIS OBISPO	30 (96.7%)	16.3	16.5	N/A	N/A	N/A	13.6	16.7	N/A	N/A
SANTA BARBARA	9 (100%)	13.4	13.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SANTA CRUZ	12 (100%)	10.3	10.2	N/A	N/A	N/A	N/A	7	N/A	N/A
SONOMA	13 (100%)	23.8	22.6	N/A	N/A	N/A	N/A	26.5	N/A	N/A

*Note that a given observation may be associated with multiple zoning designations. In such cases, we count those observations in each zoning designation category to which they pertain. Therefore, the sum of observation counts by zoning designation category by jurisdiction may be greater than the total number of observations in that jurisdiction.

In sum, receiving local approval for commercial cannabis cultivation can be a lengthy process, taking multiple years on average, though timeframes are largely dependent on the jurisdiction conducting the review. Additionally, DCC estimates its average processing time for annual state licenses at 221 days (7.3 months) (Cal. State

Senate, 2023), adding at least another seven months of review onto the local timeframe. This temporal burden could serve as a barrier to entry for legacy operators into the legal market, especially when variability or uncertainty in timeframes contributes to missed cultivation cycles and/or strains limited operator resources.

D. Quantifying Observations by Approval Pathway and Other Regulatory Characteristics

In this section, we quantify our identified observations by approval pathway and other regulatory characteristics, using these categories to also summarize approval timeframes. We begin with a recapitulation of our approval pathways framework, including summaries of how these pathways function in our study jurisdictions (1). We then present and discuss our quantitative analyses and results (2).

1. Approval Pathways Framework

As outlined in Table 3 above, we developed local cannabis land use review typologies, which we refer to as "approval pathways," which use functional equivalencies across local regulatory systems to describe what approvals, *at a minimum,* a commercial cannabis cultivation project would require to be compliant at the local level. These pathways assisted the research team in consistently determining whether a given commercial cannabis cultivation project had achieved local compliance, and this framework also serves as a categorical variable useful in comparing project outcomes for similarly regulated observations across jurisdictions. To provide helpful context in understanding the quantitative analyses in this section, we begin by providing a summary of how applicable pathways specifically function within each of the nine study jurisdictions for which we identified valid observations during our study period.[189] To recap, the basic parameters of each pathway are as follows:

- Pathway 1. Observations require a discretionary land use entitlement.
- Pathway 2. Observations require both a discretionary land use entitlement and a local cannabis business license.
- Pathway 3. Observations require a local cannabis business license only.
- Pathway 4. Observations require both a discretionary land use entitlement and an annual local cannabis authorization.
- Pathway 5. Observations require an annual local cannabis authorization only.

i. Humboldt County (Pathway 1)

All Humboldt observations are Pathway 1 observations, requiring approval of a discretionary land use entitlement for commercial cannabis cultivation. Humboldt issues

[189] Of our eleven study jurisdictions, our quantitative analyses only treat observations from nine, excluding Yolo and Trinity county. Yolo's first ordinance imposed a ministerial process with no public notification or hearing process and which did not require cultivators to go through site-specific environmental review. Yolo's system was not compliant with state CEQA law, and permit recipients were not able to obtain annual state cannabis licenses. Trinity relied on the state statutory CEQA exemption for its ordinance, which was challenged in litigation. As a result of the lawsuit settlement, Trinity invalidated all existing licenses. Therefore, neither Trinity nor Yolo had local cannabis approvals that met our definition of an observation.

three different basic approval types: Zoning Clearance Certificates (ZCC)[190], Special Permits (SP)[191], and Conditional Use Permits ("CUP")[192] (listed in order from least to most review-intensive). Local law dictates the required approval type based on several factors, including canopy size, lighting typology, parcel size, zoning district, if the project is located Inland or in the Coastal Zone, whether the cultivation site is new or pre-existing, and whether the application is subject to the Commercial Medical Marijuana Land Use Ordinance (CMMLUO, "Ordinance 1.0") or the Commercial Cannabis Land Use Ordinance (CCLUO, "Ordinance 2.0") (Humboldt Cty. Code, Cal., § 313-55.4.6; Humboldt Cty. Code, Cal., § 314-55.4.6). Observations located in the Coastal Zone also require a Coastal Development Permit (CDP) in addition to the applicable basic approval type (Humboldt Cty. Code, Cal., § 313-55.4.6).

Additionally, Humboldt maintains a unique "Retirement, Remediation, and Relocation of Pre-Existing Cultivation Sites (RRR) Program", discussed above. The RRR Program allows pre-existing cultivators in marginal or environmentally sensitive locations who cannot readily comply with commercial cannabis regulations to transfer their operation to a more suitable location contingent on successful remediation of the pre-existing site. In many instances, a cultivator may be eligible for a canopy area multiplier under the program. Generally, RRR transactions include the issuance of two ZCCs: one for the pre-existing site to be retired (subject to a Compliance Agreement for site remediation) and one for the receiving site to which the canopy area is transferred (i.e., one observation requiring two entitlements).[193] It is possible for a receiving site to

[190] ZCCs authorize small-scale cannabis cultivation projects requiring minimal planning review. They are approved administratively without hearings and are not subject to appeal (though a proponent can appeal the terms of a Compliance Agreement associated with a ZCC). Humboldt considers ZCCs to be ministerial. However, because they are associated with a fairly detailed staff report, site-specific terms and conditions of approval, Compliance Agreements, and CEQA documentation, they function in practice more like discretionary land use entitlements than over the counter, annually-renewed ministerial cannabis cultivation authorizations utilized by other jurisdictions (like Sonoma or Yolo counties). Therefore, we consider Humboldt ZCCs to be "quasi-discretionary" land use entitlements; during data collection, we classified them as "zoning clearances." Depending on site characteristics, ZCCs may also be associated with additional Special Permits.

[191] SPs authorize moderate-scale cannabis cultivation projects, and the County considers them to be discretionary. Original jurisdiction lies with the Zoning Administrator who considers the application at a public hearing. Under Humboldt County's land use ordinance generally, the hearing requirement for SPs can be waived and the permit approved administratively if no hearing is requested following noticing requirements; however, in accordance with planning department policy, SPs for cannabis cultivation are usually considered at a public hearing by the Zoning Administrator. The Zoning Administrator can also elect to withhold a decision before opening a public hearing on an application and refer it to the Planning Commission for consideration. SPs are subject to appeal to the Board of Supervisors, terms and conditions of approval, Compliance Agreements, and environmental review under CEQA. During data collection, we classified Humboldt SPs as "special permits." Depending on site characteristics, a cannabis cultivation project may involve multiple, separate SPs beyond that authorizing the cannabis cultivation itself (e.g., for reductions in setbacks or the use of a diversionary water source).

[192] CUPs authorize larger-scale cannabis cultivation projects, and the County considers them to be discretionary. Original jurisdiction lies with the Planning Commission which considers the application at a public hearing. CUPs are subject to appeal to the Board of Supervisors, terms and conditions of approval, Compliance Agreements, and environmental review under CEQA. During data collection, we classified Humboldt CUPs as "conditional use permits." Depending on site characteristics, CUPs may also be associated with additional Special Permits.

[193] Through data collection, we found that the sequencing of the two ZCCs required for a complete RRR transaction can vary from case to case: (1) a remediation site operator may apply for a ZCC to transfer their pre-existing canopy area without having identified a receiving site; (2) a receiving site operator may apply for a ZCC to receive a future RRR allocation without having identified the pre-existing site; or (3) the ZCCs for both the remediation and relocation site are processed in parallel. We do not differentiate specific observations based on this sequencing, but Humboldt must have issued both required ZCCs during our study time period for a project to constitute an observation.

host multiple RRR allocations. Because our methodological approach is primarily concerned with measuring local processes, we consider each completed RRR transaction as separate observations even if collocated. It is also possible for a receiving site to host a separately entitled cannabis cultivation allocation that is not related to any RRR transactions.[194] Again, we consider the separately-entitled allocation and each completed RRR transaction as separate observations since they navigate through the local review process independently from each other.

ii. Lake County (Pathway 1)

As in Humboldt, Lake County approves commercial cannabis cultivation projects through a Pathway 1 process. Lake issues two different land use entitlement types for cannabis cultivation depending on the proposed state cultivation license type (which dictates canopy size and lighting typology) and zoning district: Minor Use Permits (MUP)[195] and Major Use Permits (UP)[196] (Lake Cty. Code § 27(at)(2)(i)(A)(a)-(b)). The County's commercial cannabis regulations allow the collocation of multiple state cultivation licenses on a single site ("Collocation of Permits and Clustering") (Lake Cty. Code § 27(at)(1)(J)(1)-(4)). Accordingly, applicants can locate multiple state licenses on the same parcel (collocation), and multiple contiguous lots can contribute allowable canopy area to a centralized cultivation site (clustering).[197]

iii. Mendocino County (Pathways 4 and 5)

Mendocino's commercial cannabis regulations establish both Pathway 4 and Pathway 5 processes. For clarity, we treat Pathway 5 approvals first and return to Pathway 4 below.

Pathway 5 observations require only the issuance of annual local cannabis authorizations; they do not require land use entitlements. Therefore, these observations are constituted by the initial issuance of such authorization and subsequent annual

[194] The separately entitled cannabis allocation would not be eligible for the canopy area multiplier that any collocated RRR transaction might be.

[195] Discretionary MUPs authorize outdoor and mixed-light cannabis cultivation projects up to 10,000 square feet in certain zoning districts. Original jurisdiction lies with the Zoning Administrator, who considers the application at a public hearing, though the hearing can be waived following noticing requirements; the planning director may also determine that a MUP be reviewed by the Planning Commission instead under certain circumstances (which is very common). The Zoning Administrator's decision is subject to appeal to the Planning Commission, and the Planning Commission's decision is subject to appeal to the Board of Supervisors. MUPs are subject to terms and conditions of approval and environmental review under CEQA. During data collection, we have classified Lake County MUPs as "special permits."

[196] Discretionary UPs authorize outdoor and mixed-light cannabis cultivation projects greater than 10,000 square feet in certain zoning districts. Major Use Permits are considered by the Planning Commission at a public hearing, and the Planning Commission's decision is appealable to the Board of Supervisors. UPs are subject to terms and conditions of approval and environmental review under CEQA. During data collection, we have classified Lake County UPs as "conditional use permits."

[197] Collocation has led to multiple instances where individual state cultivation licenses on the same or contiguous parcels were originally granted separate land use entitlements (MUPs or UPs) but were subsequently consolidated under a single land use entitlement allowing clustering. We do not consider this a modification of the initially approved entitlement but treat the original and subsequent land use entitlements to be distinct approvals and therefore separate observations. We consider instances where an approved land use entitlement allows the collocation or clustering of multiple state licenses on a single site as one observation.

renewals thereof. Mendocino refers to their annual authorizations as Commercial Cannabis Cultivation Permits ("CCCP") (Mendocino Cty. Code §10A.17.030(A)) and the jurisdiction considers them to be ministerial.[198] However, to comply with site-specific environmental review requirements and be eligible for annual state cannabis licensing, Pathway 5 observations in Mendocino must also be associated with a certified Appendix G CEQA Checklist (as discussed in detail above). Therefore, Mendocino is the only study jurisdiction to produce Pathway 5 observations during our study period.

While Mendocino's regulatory system contemplates approving most commercial cannabis cultivation projects through a Pathway 5 process, there are several instances in which a project also requires a discretionary Administrative Permit ("AP")[199] in addition to the annual CCCP, and this entails a Pathway 4 process. These circumstances include: certain pre-existing grows located in resource zoning districts (such as Timber Production Zones) (Mendocino Cty. Code § 20.242.040(B)); certain projects involving indoor cultivation components (Mendocino Cty. Code § 20.242.040(B); reductions in setback or minimum parcel size requirements (Mendocino Cty. Code § 20.242.040(C)); and exemptions to the onsite dwelling unit requirement in some zoning districts (Mendocino Cty. Code § 10A.17.070(E)).

iv. Monterey County (Pathway 2)

Monterey's commercial cannabis cultivation regulations established a Pathway 3 process, requiring both a discretionary land use entitlement and a local cannabis business license. Observations in Monterey are associated with one of two land use entitlement types: Administrative Permits (AP)[200] or Use Permits (UP)[201]. Originally, local law required a Use Permit for all cannabis cultivation projects[202]. However, the jurisdiction revised its regulations in 2018 to allow most commercial cannabis cultivation

[198] Mendocino considers CCCPs to be ministerial, and they are only subject to standard terms listed on the permit certificate. CCCPs cannot be appealed; however, as of April 19, 2022, the county provided county counsel with direction to create an appeal process for CCCP application denials. We consider Mendocino County CCCPs to be functionally equivalent to Nevada County Annual Cannabis Permits (ACP), Trinity County Cannabis Cultivation Licenses (CCL), and Yolo County Cannabis Cultivation Licenses (CCL).

[199] APs are approved by the Zoning Administrator, though a hearing is not required "unless the administering agency determines that such hearing would be in the best interest of the County" (Sec. 20.192.025). APs are subject to appeal to the Board of Supervisors, terms and conditions of approval, and environmental review under CEQA. During data collection, we classified Mendocino APs as "special permits."

[200] APs can be approved administratively following noticing requirements; however, if public noticing results in the request for a public hearing, the Zoning Administrator considers the application at a public hearing. APs are subject to appeal to the Planning Commission, terms and conditions of approval, and environmental review under CEQA. During data collection, we have classified APs as "special permits."

[201] Original jurisdiction lies with the Planning Commission, which considers the application at a public hearing. UPs are subject to appeal to the Board of Supervisors, terms and conditions of approval, and environmental review under CEQA. During data collection, we have classified UPs as "conditional use permits."

[202] Administrative Permits were added in 2018 so that the Planning Commission was not required to approve relatively straightforward projects, a review that was slowing down the application process.

projects through the issuance of an Administrative Permit[203]. The entitlements are connected to the project site itself on which multiple operators and/or uses can locate.

In addition to the land use entitlement, all operators located on an entitled site must also hold a local cannabis business permit, locally named a Commercial Cannabis Business Permit ("CBP"),[204] that is ministerial and renewed annually (Monterey Cty. Code Chapter 21.67.030(B); Monterey Cty. Code Chapter 7.90.030(J)). Because every operator on an entitled site must hold its own CBP, it is possible for a given entitled site to be associated with multiple CBPs. This also means it is possible for certain canopy areas and facility components authorized by the land use entitlement to hold a CBP and be eligible to operate, while others are not. A Monterey project must be entitled and hold at least one corresponding CBP to be a valid observation. During data collection, we detected a backlog between the land use entitlement and CBP processes. While we identified approximately eight entitlements approved within the study period, only four of these entitlements also received CBPs by the end of 2020.

v. Nevada County (Pathway 4)

Nevada applies a Pathway 4 process to all commercial cannabis cultivation projects, requiring both a discretionary land use entitlement and annual local cannabis authorization. Local law provides for two different land use entitlement types depending on the canopy area: Commercial Cannabis Permits ("CCP")[205] for projects up to 2,500 sq. ft. (Nevada County Land Use and Development Code Sec. L-II 3.30(G)(1)(a)), or Administrative Development Permits ("ADP")[206] for projects with a canopy of 2,501 to 10,000 sq. ft. (Nevada County Land Use and Development Code Sec. L-II 3.30(G)(2)). Additionally, Nevada observations require an annual local cannabis authorization, referred to as an Annual Cannabis Permit ("ACP") (Nevada County Land Use and Development Code Sec. L-II 3.30(C)(2). The County considers ACPs to be ministerial, and the applicant must renew the ACP annually. The applicant may appeal the

[203] Projects located on agricultural soils with greater than 50% lot coverage still require a UP. For project sites in the Coastal Zone, a Coastal Development Permit ("CDP") serves as the required land use entitlement, though this does not pertain to any of our observations.

[204] CBPs enforce the performance standards and other regulations particular to cannabis-specific businesses and are separate and distinct from a local "business license" issued to business entities in general by a taxation authority.

[205] CCPs authorize outdoor and mixed-light cannabis cultivation projects with up to 2,500 sq. ft. of canopy area. Nevada County's commercial cannabis ordinances do not specifically state whether CCPs are ministerial or discretionary, but they have been described as ministerial in a Planning Commission Staff Report. Additionally, they are associated with site-specific terms and conditions of approval, Transition Plans, CEQA determinations, and other discretionary actions (such as Management Plans and setback easements). Therefore, we consider them functionally equivalent to ZCCs in Humboldt County, which are considered ministerial under local law but function more like discretionary, administrative-level approvals in the cannabis regulatory space. CCPs are approved administratively, and it is unclear currently if they are subject to appeal. However, the denial of an ACP can be appealed. During data collection, we have classified Nevada County CCPs as "zoning clearances."

[206] ADPs authorize outdoor and mixed-light cannabis cultivation projects greater than 2,500 sq. ft. in canopy area and up to 10,000 sq. ft. The County considers ADPs discretionary; they are approved administratively and are subject to appeal to the Board of Supervisors. They are also associated with site-specific terms and conditions of approval, Transition Plans, CEQA determinations, and other discretionary actions (such as Management Plans and setback easements). During data collection, we have classified Nevada County ADPs as "land use permits."

permitting authority's decision to deny the renewal of an ACP (Nevada County Land Use and Development Code Sec. L-II 3.30(N)(2)). We have identified instances where the jurisdiction originally approved a project with a CCP, but the applicant subsequently increased the proposed canopy area and required the issuance of an ADP. We consider these instances not subsequent modifications of the original CCP project but two distinct approvals, provided each entitlement is also associated with a corresponding ACP.

vi. San Luis Obispo County (Pathway 1)

Unique among our Central Coast study jurisdictions, San Luis Obispo approved all commercial cannabis cultivation projects through a Pathway 1 process. San Luis Obispo County's commercial cannabis regulations outline two land use entitlement types: Minor Use Permits ("MUP")[207] and Conditional Use Permits ("CUP")[208] (SLO Cty. Code § 22.40.050(B)). The entitlement type is dictated by the cannabis-related uses onsite and whether the operation has a history of cannabis-related code violations (SLO Cty. Code § 22.40.040(C)). A Coastal Development Permit ("CDP")[209] is required for projects located within the Coastal Zone in addition to the applicable basic approval type (SLO Cty. Code § 23.08.414).

vii. Santa Barbara County (Pathway 2)

Santa Barbara utilizes a Pathway 2 process for approving commercial cannabis cultivation projects, requiring both a land use entitlement from the Planning Department and a local cannabis business license from the County Executive Office ("CEO"). Depending on the zoning district and other project characteristics, the required approval types include a Land Use Permit ("LUP")[210], Conditional Use Permit ("CUP"),[211] and

[207] Discretionary MUPs authorize cannabis cultivation projects that do not involve the vertical integration of multiple commercial cannabis uses (i.e., cultivation and ancillary activities only) and that do not have a history of cannabis-related code violations. Original jurisdiction lies with the Planning Department Hearing Officer, who considers the application at a public hearing, though the hearing can be waived following noticing requirements; the application can also be referred to the Planning Commission for consideration. MUPs are subject to appeal, terms and conditions of approval, and environmental review under CEQA. During data collection, we have classified San Luis Obispo County MUPs as "special permits."

[208] Discretionary CUPs authorize cannabis cultivation projects that involve the vertical integration of multiple commercial cannabis uses and/or which have a history of cannabis-related code violations. Conditional Use Permits are considered by the Planning Commission at a public hearing, and the Planning Commission's decision is appealable to the Board of Supervisors. CUPs are subject to terms and conditions of approval and environmental review under CEQA. During data collection, we have classified San Luis Obispo County CUPs as "conditional use permits."

[209] Coastal Development Permits authorize development within the Coastal Zone. The California Coastal Commission is the ultimate permit authority in the Coastal Zone of San Luis Obispo County, and has the ultimate say in how the County's Local Coastal Ordinances under Title 23 is interpreted.

[210] Outdoor and mixed-light cannabis cultivation are permitted uses in AG-II zoning districts that are not located within Existing Developed Rural Neighborhoods (EDRN) and can receive a discretionary LUP. LUPs are approved at the administrative/director level without public hearings but are subject to appeal to the Planning Commission. They are also subject to terms and conditions of approval and environmental review under CEQA. During data collection, we classified Santa Barbara LUPs as "land use permits." LUPs also authorize cannabis cultivation in industrial (M) zoning districts, though none of our observations are in such districts.

[211] Outdoor and mixed-light cannabis cultivation are permitted uses on lots greater than 20 acres in AG-I zoning districts that are not located within an EDRN and can receive a discretionary CUP. Projects located within AG-II zoning districts also require a CUP if the

Coastal Development Permit ("CDP")[212] (Santa Barbara Cty. Land Use & Dev. Code § 35.42.075(b)(4)). The land use entitlements are connected to the project site itself on which multiple operators and/or uses can locate.

All commercial cannabis operators on an entitled site require a local Cannabis Business License ("CBL")[213] from the CEO that is renewed annually (Santa Barbara Cty. Code § 50-3(a)). Because every operator on an entitled site must hold its own CBL, it is possible for a given entitled site to be associated with multiple CBLs. This means it is also possible for certain canopy areas and facility components authorized by the entitlement to be business-licensed while others are not. A Santa Barbara project must be entitled and hold at least one corresponding CBL to be a valid observation. During data collection, we detected a backlog between the land use entitlement and CBL processes. While the County included 81 entitled sites on CBL eligibility lists published in December 2021 and January 2022, we identified only nine valid observations during our study period. There is an additional unknown subset of entitled sites that are not eligible for CBPs due to the County's cumulative acreage cap, discussed above.

viii. Santa Cruz County (Pathways 2 and 3)

Santa Cruz's commercial cannabis regulations allow for both Pathway 2 and Pathway 3 approvals.

Pathway 2 approvals require both a discretionary land use entitlement from the Planning Department and a local cannabis business license from the Cannabis Licensing Office ("CLO") (*Application Overview Non-Retail Commercial Cannabis License and Use Permit Cultivation*, 2019). Local law provides for three different discretionary land use approval types (Level 3,[214] Level 4,[215] or Level 5[216] Commercial Development Permits), dictated by zoning district, canopy size, cultivation structures, and existing site conditions. Project sites located in the Coastal Zone require a Coastal

project site is adjacent to an EDRN and/or Urban Rural Boundary or if the cannabis cultivation area is to exceed 51% of the parcel area. CUPs are approved by the Planning Commission and are subject to appeal to the Board of Supervisors. They are also subject to terms and conditions of approval and environmental review under CEQA. During data collection, we classified Santa Barbara CUPs as "conditional use permits."

[212] In the Coastal Zone, outdoor and mixed-light cannabis cultivation is a permitted use in AG-I, AG-II, and M-RP zoning districts with issuance of a discretionary CDP, which serves as the required land use entitlement.

[213] In addition to an approved land use entitlement associated with the development site as described above, every operator located on that entitled site must also hold a CBL. CBLs enforce the performance standards and other regulations particular to cannabis-specific businesses and are separate and distinct from a local "business license" issued to business entities in general by a taxation authority.

[214] Level 3 approvals are discretionary actions approved administratively and subject to appeal. They are associated with terms and conditions of approval and environmental review under CEQA. During data collection, we classified Level 3 approvals as "land use permits."

[215] Level 4 approvals are discretionary actions approved administratively but which require a 14-calendar-day public noticing period during which the intention to approve may be appealed; there is no public hearing process. They are associated with terms and conditions of approval and environmental review under CEQA. During data collection, we classified Level 4 approvals as "land use permits."

[216] Level 5 approvals are discretionary actions approved by the Zoning Administrator following a public hearing. They are subject to appeal, terms and conditions of approval, and environmental review under CEQA. During data collection, we classified Level 5 approvals as "special permits."

Development Permit ("CDP") in addition to the primary land use entitlement (Santa Cruz Cty. Code Chapter 13.10.650). The land use entitlements are connected to the project site itself on which multiple operators and/or uses can locate.

All commercial cannabis operators on an entitled site require a Cannabis Business License ("CBL") from CLO. The County's regulations explicitly state that CBLs are discretionary and are therefore subject to terms and conditions of approval and environmental review under CEQA. As in other jurisdictions with Pathway 2 processes, because every operator on an entitled site must hold its own CBL, it is possible for a given entitled site to be associated with multiple CBLs. This means it is also possible for certain canopy areas and facility components authorized by the entitlement to be business-licensed while others are not. A Pathway 2 approval in Santa Cruz must be entitled and hold at least one corresponding CBL to be a valid observation.

Additionally, Santa Cruz is the only study jurisdiction that allows for a Pathway 3 approval process, wherein projects require only a local cannabis business license to achieve local compliance. In Santa Cruz, this applies only to projects located in Commercial Agriculture (CA) zoning districts, where cannabis cultivation within existing greenhouses and outdoor cannabis cultivation (including within hoop houses) are principally permitted ("by-right") uses not requiring planning approval. Local review under these conditions is conducted entirely through the business licensing process by CLO, including the adoption of an environmental determination under CEQA. Multiple by-right operators with their own Cannabis Business Licenses can locate on the same project site.

ix. Sonoma County (Pathway 1)

Sonoma developed a commercial cannabis regulatory system that provided both discretionary and ministerial review processes for different types of cannabis cultivation projects. This means that Sonoma theoretically approved projects through both Pathway 1 and Pathway 5 processes. However, the jurisdiction's ministerial approvals are not eligible for annual state cannabis licensing, because the jurisdiction has not established a procedure for conducting the required site-specific environmental review. Therefore, we exclude these projects from our database and quantitative analyses.

Sonoma's 13 remaining approvals are Pathway 1 observations, requiring only a land use entitlement. Sonoma approves these observations through the issuance of discretionary Minor Use Permits ("MUP")[217].

[217] The Board of Zoning Adjustments (BZA) approves MUPs following a public hearing; however, the hearing requirement can be waived if public noticing requirements do not result in a request for a public hearing. There is a subset of MUPs for which the Board of Supervisors (BOS) took original jurisdiction. These were instances where a complete MUP application had already been under review when the BOS amended the minimum required parcel size for cannabis cultivation sites. MUPs are subject to appeal (when not approved by the BOS), terms and conditions of approval, and environmental review under CEQA. During data collection, we classified Sonoma County MUPs as "special permits."

x. Functional Equivalencies in Land Use Entitlement Types

In the preceding discussion, we reviewed our approval pathways framework and provided summaries of how these pathways more specifically function within each jurisdiction where they apply. We have observed our study jurisdictions apply some combination of three basic approval types (discretionary land use entitlements, local cannabis business permits, and annual local cannabis authorizations) to commercial cannabis cultivation projects. Within the discretionary land use entitlements category, there are also different entitlement types (each associated with different processes), and jurisdictions use different names for substantially similar entitlement types. We created functional equivalencies for these entitlement types across jurisdictions during data collection and coding. Table 27 provides a final visual tool to assist readers in understanding the approval pathways framework and the quantitative analyses that follow. The table outlines which approval pathways are available in each jurisdiction in which we identified observations and indicates which approval types satisfy the pathway using the local terms. We define each approval type as follows.

- **Zoning Clearance (ZC)**. These are low-level administrative approvals. While the jurisdictions which use them either consider them ministerial (Humboldt) or are equivocal on their status (Nevada), we consider them "quasi-discretionary," because they function in practice more like administratively approved discretionary actions. Therefore, we code them separately from other discretionary review types.
- **Land Use Permit (LUP)**. These are low-intensity, administratively approved, discretionary land use actions. They do not require public hearings.
- **Special Permits (SP)**. These are moderately-intensive discretionary approvals. In most jurisdictions, the Zoning Administrator (or a decision maker between the administrative level and the Planning Commission) consider these approval types. They generally have public hearing requirements, though most jurisdictions allow for waiving the hearing after public noticing results in no opposition or requests for a hearing.
- **Conditional Use Permits (CUP)**. These are the highest-level discretionary approvals, requiring consideration by the Planning Commission at a public hearing in all instances.
- **Coastal Development Permit (CDP)**. These are special discretionary land use actions required of development projects in the Coastal Zone subject to review by the California Coastal Commission (CCC). Jurisdictions implement CDP processes differently according to their CCC-approved Local Coastal Programs. In some jurisdictions, CDPs serve as the required entitlement, while in others they are in addition to another required approval type.

Table 27: AVAILABLE APPROVAL PATHWAYS AND APPROVAL TYPES BY JURISDICTION

		DISCRETIONARY LAND USE ENTITLEMENT TYPES					LOCAL CANNABIS BUSINESS LICENSE	LOCAL ANNUAL CANNABIS AUTHORI-ZATION
		ZONING CLEARANCE (ZC)	LAND USE PERMIT (LUP)	SPECIAL PERMIT (SP)	CONDITION-AL USE PERMIT (CUP)	COASTAL DEVELOP-MENT PERMIT (CDP)		
HUMBOLDT								
	PATHWAY 1	ZONING CLEARANCE CERTIFI-CATE (ZCC) [1]	●	SPECIAL PERMIT (SP)	CONDITION-AL USE PERMIT (CUP)	COASTAL DEVELOP-MENT PERMIT (CDP) [2]	●	●
LAKE								
	PATHWAY 1	●	●	MINOR USE PERMIT (MUP)	MAJOR USE PERMIT (UP)	●	●	●
MENDOCINO								
	PATHWAY 4	●	●	ADMINIS-TRATIVE PERMIT (AP)	●	●	●	COMMERCIAL CANNABIS CULTIVATION PERMIT (CCCP)
	PATHWAY 5	●	●	●	●	●	●	COMMERCIAL CANNABIS CULTIVATION PERMIT (CCCP) [3]
MONTEREY								
	PATHWAY 2	●	●	ADMINIS-TRATIVE PERMIT (AP)	USE PERMIT (UP)	COASTAL DEVELOP-MENT PERMIT (CDP) [4]	CANNABIS BUSINESS PERMIT (CBP)	●
NEVADA								
	PATHWAY 4	COMMER-CIAL CANNABIS PERMIT (CCP) [5]	ADMINIS-TRATIVE DEVELOP-MENT PERMIT (ADP)	●	●	●	●	ANNUAL CANNABIS PERMIT (ACP)
SAN LUIS OBISPO								
	PATHWAY 1	●	●	MINOR USE PERMIT (MUP)	CONDITION-AL USE PERMIT (CUP)	COASTAL DEVELOP-MENT PERMIT (CDP) [2]	●	●
SANTA BARBARA								

Table 27: AVAILABLE APPROVAL PATHWAYS AND APPROVAL TYPES BY JURISDICTION								
		DISCRETIONARY LAND USE ENTITLEMENT TYPES					LOCAL CANNABIS BUSINESS LICENSE	LOCAL ANNUAL CANNABIS AUTHORI-ZATION
		ZONING CLEARANCE (ZC)	LAND USE PERMIT (LUP)	SPECIAL PERMIT (SP)	CONDITION-AL USE PERMIT (CUP)	COASTAL DEVELOP-MENT PERMIT (CDP)		
	PATHWAY 2	●	LAND USE PERMIT	●	CONDITIONAL USE PERMIT	COASTAL DEVELOP-MENT PERMIT (CDP) [4]	CANNABIS BUSINESS LICENSE (CBL)	●
SANTA CRUZ								
	PATHWAY 2	●	LEVELS 3 & 4 COMMER-CIAL DEVELOP-MENT PERMITS	LEVEL 5 COMMER-CIAL DEVELOP-MENT PERMIT	●	COASTAL DEVELOP-MENT PERMIT (CDP) [2]	CANNABIS BUSINESS LICENSE (CBL)	●
	PATHWAY 3	●	●	●	●	●	CANNABIS BUSINESS LICENSE (CBL)	●
SONOMA								
	PATHWAY 1	●	●	MINOR USE PERMIT (MUP)	●	●	●	●

[1] Local law classifies Humboldt Zoning Clearance Certificates as ministerial However, they function more as administrative discretionary approvals, so we consider them “quasi-discretionary.”

[2] For project sites in the Coastal Zone, the Coastal Development Permit is required in addition to another listed land use entitlement type, as applicable.

[3] Pathway 5 approvals in Mendocino must also be associated with Appendix G CEQA Checklists to be considered valid observations.

[4] For project sites in the Coastal Zone, the Coastal Development Permit satisfies the entitlement requirement; an additional approval is not required.

[5] Local law does not classify Nevada Cannabis Cultivation Permits as either ministerial or discretionary, and documentation prepared by the jurisdiction is equivocal. We consider them functionally equivalent to Humboldt Zoning Clearance Certificates and consider them “quasi-discretionary.”

2. Quantitative Analyses

Table 28 provides observation counts by pathway and jurisdiction. Jurisdictions approved most of our observations (nearly 90 percent) through Pathway 1 processes, requiring a discretionary land use entitlement only. In jurisdictions where Pathway 1 applies (Humboldt, Lake, San Luis Obispo, and Sonoma), it was the only pathway available (or, in Sonoma, the only pathway that produced valid observations during our study period). The next most common pathway was Pathway 4 (7.6 percent of observations), requiring both a discretionary land use entitlement and an annual local cannabis authorization. Nevada contributes the most Pathway 4 observations (where this is the only pathway available), though Mendocino approved one observation through a Pathway 4 process. Pathway 2 is the third most common process (3.2 percent of observations), requiring both a discretionary land use entitlement and a local cannabis business license. This is the only pathway available in Monterey and Santa Barbara, and Santa Cruz approved most of its observations (over 80 percent) through this pathway. Pathway 3 and 5 processes are uncommon. Pathway 3, requiring only a local cannabis business license, applies in Santa Cruz alone, which approved two of its 12 observations in this manner. Mendocino is the only jurisdiction to produce valid Pathway 5 observations during our study period, approving two of its three observations through local annual cannabis authorizations alone.

Table 28: OBSERVATION COUNTS BY APPROVAL PATHWAY AND JURISDICTION

JURISDICTION	TOTAL OBSERVATIONS	PATHWAY 1	PATHWAY 2	PATHWAY 3	PATHWAY 4	PATHWAY 5
ALL JURISDICTIONS	728	646 (88.7%)	23 (3.2%)	2 (0.3%)	55 (7.6%)	2 (0.3%)
HUMBOLDT	542	547 (100%)	N/A	N/A	N/A	N/A
LAKE	60	60 (100%)	N/A	N/A	N/A	N/A
MENDOCINO	3	N/A	N/A	N/A	1 (33.3%)	2 (66.7%)
MONTEREY	4	N/A	4 (100%)	N/A	N/A	N/A
NEVADA	54	N/A	N/A	N/A	54 (100%)	N/A
SAN LUIS OBISPO	31	31 (100%)	N/A	N/A	N/A	N/A
SANTA BARBARA	9	N/A	9 (100%)	N/A	N/A	N/A
SANTA CRUZ	12	N/A	10 (83.3%)	2 (16.7%)	N/A	N/A
SONOMA	13	13 (100%)	N/A	N/A	N/A	N/A

To evaluate whether the approval pathways—which represent distinct regulatory typologies—resulted in meaningfully different temporal outcomes, we summarized

approval timeframes by pathway and jurisdiction and give the results in Table 29. We would expect processes that require fewer layers of review (or less-intensive review) to result in shorter approval timeframes, but the overall results contradict this expectation. Pathway 1 (which theoretically requires as few as one land use approval) has the longest mean approval timeframe at 26.2 months overall, driven largely by Humboldt's high observation count and lengthy local mean approval timeframe. By contrast, Pathway 2, and Pathway 4 (which require at least two sequenced approvals), have shorter mean timeframes, at 15 months and 8 months, respectively. Santa Cruz approved its Pathway 3 observations in just three weeks on average, remarkably shorter than any other segment of observations. Mendocino approved its Pathway 5 observations more quickly (19.4 months) than Pathway 1 observations on average, but this is longer than any other pathway, likely driven largely by the Appendix G CEQA Checklist requirement.

Table 29: MEAN APPROVAL TIMEFRAMES (IN MONTHS) BY PATHWAY AND JURISDICTION

JURISDICTION	# OBSERVATIONS W/ COMPLETE TIMEFRAME INFORMATION	OVERALL MEAN	PATHWAY 1 MEAN	PATHWAY 2 MEAN	PATHWAY 3 MEAN	PATHWAY 4 MEAN	PATHWAY 5 MEAN
ALL JURISDICTIONS	703 (96.6%)	24.3	26.2 (n=621)	15 (n=23)	0.6 (n=2)	8 (n=55)	19.4 (n=2)
HUMBOLDT	540 (99.6%)	28	28 (n=540)	N/A	N/A	N/A	N/A
LAKE	38 (63.3%)	10.2	10.2 (n=38)	N/A	N/A	N/A	N/A
MENDOCINO	3 (100%)	22.9	N/A	N/A	N/A	29.9 (n=1)	19.4 (n=2)
MONTEREY	4 (100%)	26.5	N/A	26.5 (n=4)	N/A	N/A	N/A
NEVADA	54 (100%)	7.6	N/A	N/A	N/A	7.6 (n=54)	N/A
SAN LUIS OBISPO	30 (96.7%)	16	16 (n=30)	N/A	N/A	N/A	N/A
SANTA BARBARA	9 (100%)	13.2	N/A	13.2 (n=9)	N/A	N/A	N/A
SANTA CRUZ	12 (100%)	10.1	N/A	12 (n=10)	21 DAYS (n=2)	N/A	N/A
SONOMA	13 (100%)	23.4	23.4 (n=13)	N/A	N/A	N/A	N/A

The contradiction becomes more apparent at the jurisdiction-scale. Humboldt, Lake, San Luis Obispo, and Sonoma approved all their valid observations through Pathway 1 processes but saw vastly different temporal outcomes. Humboldt's mean approval timeframe of 28 months is almost three times longer than Lake's (10.2

months), with San Luis Obispo and Sonoma falling in between that range. Pathway 2 jurisdictions also saw considerably different temporal outcomes. Monterey's mean approval timeframe of 26.5 months is over twice as long as Santa Cruz's (10.1 months), with Santa Barbara more closely aligned with the latter. Within Pathway 4, Mendocino produced just one valid observation, but its 29.9 months approval timeframe is nearly four times longer than Nevada's mean approval timeframe for its 54 observations at just 7.6 months. These divergent results across similarly regulated observations suggest that the typology of the regulatory system which jurisdictions adopt for commercial cannabis activities is less important in determining temporal outcomes than other local factors influencing the manner in which the system is applied.

As discussed in the earlier Approval Pathways Framework, in instances where local approval requires a discretionary land use entitlement component (Pathways 1, 2, and 4), there is diversity in the entitlement type itself as well. The entitlement type dictates much about the stringency of review, including necessary noticing requirements, whether a public hearing is mandated, and what local approval body is the decision maker. As an additional cut of the data, we calculated mean approval timeframes for Pathway 1, 2, and 4 observations by the most-intensive land use action type required for each observation. We provide the results in Table 30, ordering the approval types from most intensive (conditional use permits) to least intensive (zoning clearances). Again, we would expect observations associated with more stringent reviews to experience longer mean approval times.

We do not see strong patterns in mean approval timeframes overall in this analysis, likely due to the volume of Humboldt observations and their generally long approval timeframes. Additionally, not every entitlement type is applicable in every jurisdiction. However, the expected pattern generally holds at the jurisdiction scale. For example, Lake uses a Pathway 1 process where the required entitlement type is determined by the proposed state license type (and therefore canopy area and lighting typology). Observations subject to the lower-level special permit process experienced mean approval timeframes that were approximately 14 percent shorter than those subject to the conditional use permit process (9.3 months versus 10.8 months). Similarly, Pathway 2 observations in Santa Cruz subjected to the lower-level process saw about five percent shorter approval timeframes; Pathway 4 observations in Nevada associated with its lower-level approval type experienced timeframes that were over 40 percent shorter on average. Even in Humboldt—where the mean approval timeframe for zoning clearance observations (27.1 months) exceeds the overall mean timeframe (24.3 months) and that of any jurisdiction—the lowest-level entitlement type is quicker than the alternatives. San Luis Obispo is the only place where this pattern does not hold, with

that jurisdiction seemingly approving conditional use permits more quickly than special permits.

Table 30: MEAN APPROVAL TIMEFRAMES (IN MONTHS) BY MOST-INTENSIVE LAND USE ACTION FOR OBSERVATIONS REQUIRING LAND USE ENTITLEMENT (PATHWAYS 1, 2, AND 4)

JURISDICTION	PATHWAY	CONDITIONAL USE PERMIT	SPECIAL PERMIT	LAND USE PERMIT	ZONING CLEARANCE	OTHER APPROVAL TYPE
ALL JURISDICTIONS	PATHWAY 1	26.7 MONTHS (n= 186 of 202)	25.1 MONTHS (n= 222 of 230)	N/A	27.1 MONTHS (n= 197 of 212)	21.4 MONTHS (n = 1 of 1)
	PATHWAY 2	26.5 MONTHS (n= 4 of 4)	11.5 MONTHS (n = 3 of 3)	12.8 MONTHS (n= 15 of 15)	N/A	11.1 MONTHS (n= 1 of 1)
	PATHWAY 4	N/A	29.9 MONTHS (n= 1 of 1)	8.3 MONTHS (n= 43 of 43)	4.7 MONTHS (n= 11 of 11)	N/A
HUMBOLDT	PATHWAY 1	30.3 MONTHS (n= 149 of 149)	27.2 MONTHS (n= 178 of 179)	N/A	27.1 MONTHS (n= 197 of 212)	21.4 MONTHS (n= 1 of 1)
LAKE	PATHWAY 1	10.8 MONTHS (n= 25 of 40)	9.3 MONTHS (n= 13 of 20)	N/A	N/A	N/A
MENDOCINO	PATHWAY 4	N/A	29.9 MONTHS (n= 1 of 1)	N/A	N/A	N/A
MONTEREY	PATHWAY 2	26.5 MONTHS (n= 4 of 4)	N/A	N/A	N/A	N/A
NEVADA	PATHWAY 4	N/A	N/A	8.3 MONTHS (n= 43 of 43)	4.7 MONTHS (n= 11 of 11)	N/A
SAN LUIS OBISPO	PATHWAY 1	14.8 MONTHS (n = 12 of 13)	16.8 MONTHS (n = 18 of 18)	N/A	N/A	N/A
SANTA BARBARA	PATHWAY 2	N/A	N/A	13.4 MONTHS (n= 8 of 8)	0	11.1 MONTHS (n= 1 of 1)
SANTA CRUZ	PATHWAY 2	N/A	11.5 MONTHS (n= 3 of 3)	12.2 MONTHS (n= 7 of 7)	N/A	N/A
SONOMA	PATHWAY 1	N/A	23.4 MONTHS (n = 13 of 13)	N/A	N/A	N/A

Taken together, the approval pathway and entitlement type analyses suggest that the type of land use actions which jurisdictions apply to projects indeed influences approval timeframes, with less-intensive review processes generally resulting in shorter timeframes. However, the broader regulatory system within which land use review is couched appears less determinative of temporal outcomes. In other words, review processes interact with jurisdiction-specific circumstances in influencing approval timeframes.

E. Quantifying Observations and Summarizing Timeframes by Hearing Count

In this section, we analyze project outcomes for our observations relative to the presence of public hearings in the local review process. While not every discretionary process requires them, public hearings are a common feature of local regulatory processes. Hearings provide an opportunity for the applicable decision maker to consider evidence from local agency staff and/or the applicant in reaching its decision; they also allow the public to voice support for or concern about proposed projects. Therefore, the number of hearings associated with a project can be indicative of the level of review applied to it as the decision maker balances a project's potential benefits and impacts with the interests of public health, safety, and welfare. On the other hand, the number of hearings could also indicate dysfunction in the review process if a project's consideration is continued over multiple sessions due to agency or applicant unpreparedness or due to expressions of legitimate public interest tipping over into controversy or vitriol.

In Table 31, we quantify our identified observations based on the number of hearings that occurred during an observation's local review process. The hearing count per observation includes any occasion on which the jurisdiction legally noticed and included a project as a hearing agenda item, regardless of the decision maker's action (or inaction) on the item. We report the hearing count using three categories: no hearing, one hearing, or more than one hearing. Our choice to classify observations in this manner reflects an important overall finding: that hearings are not uncommon in the local review of commercial cannabis cultivation projects but that holding multiple hearings is. Over half of the identified observations overall during our study period had at least one hearing. (We note in the table there is a subset of observations for which we could not make hearing count determinations based on the available data.) Nevertheless, only five percent of observations had more than one hearing, and the maximum hearing count identified across all observations is three (which occurs in only two of the nine jurisdictions for which we identified valid observations, namely Humboldt and Sonoma).

Table 31: OBSERVATIONS BY HEARING COUNT AND JURISDICTION							
JURISDICTION	TOTAL OBSERVATIONS	NO HEARING	ONE HEARING	> ONE HEARING	UNKNOWN HEARING COUNT	MINIMUM HEARING COUNT	MAXIMUM HEARING COUNT
ALL JURISDICTIONS	728	289 (39.7%)	385 (52.9%)	49 (6.7%)	5 (0.7%)	0	3
HUMBOLDT	542	210 (38.7%)	298 (55.0%)	34 (6.3%)	0 (0.0%)	0	3
LAKE	60	0 (0.0%)	49 (81.7%)	6 (10%)	5 (8.3%)	1	2
MENDOCINO	3	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0	0
MONTEREY	4	0 (0.0%)	3 (75.0%)	1 (25.0%)	0 (0.0%)	1	2
NEVADA	54	54 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0	0
SAN LUIS OBISPO	31	0 (0.0%)	28 (90.3%)	3 (9.7%)	0 (0.0%)	1	2
SANTA BARBARA	9	8 (88.9%)	0 (0.0%)	1 (11.1%)	0 (0.0%)	0	2
SANTA CRUZ	12	9 (75.0%)	3 (25.0%)	0 (0.0%)	0 (0.0%)	0	1
SONOMA	13	5 (38.5%)	4 (30.8%)	4 (30.8%)	0 (0.0%)	0	3

As with other regulatory mechanisms examined so far, the application of hearings varies by jurisdiction. Mendocino and Nevada Counties approved all observations without any hearings at all, while Lake and San Luis Obispo Counties applied hearings in all cases for which we have adequate data. Santa Barbara and Santa Cruz Counties approved most of their observations without hearings (approximately 90 and 75 percent, respectively); recall also from the previous discussion that Santa Barbara approved the most cannabis canopy area across all jurisdictions (over one-third of the identified total), having done so with virtually no hearings at all. Hearings are less lopsided in Sonoma and Humboldt Counties. Sonoma observations are roughly evenly distributed across the three reporting categories. Humboldt observations largely drive the overall trend, with approximately one-third of observations having no hearing, a little over half having one hearing, and around six percent having more than one.

We would reasonably expect hearings to be associated with longer approval timeframes, so we summarize timeframes by hearing count category and jurisdiction in Table 32. Our results confirm this expectation in the aggregate. Reading from left to right, overall mean approval timeframes increase as observations are associated with no, one, and multiple hearings. Observations not associated with hearings experience approval timeframes that are on average ten percent shorter than the overall mean, while observations associated with multiple hearings see timeframes approximately 14 percent longer than the mean. A single hearing adds 1.4 months on average to an observation's approval timeframe.

Table 32: MEAN APPROVAL TIMEFRAMES (IN MONTHS) BY HEARING COUNT AND JURISDICTION

JURISDICTION	MEAN TIMEFRAME OVERALL	NO HEARING MEAN	ONE HEARING MEAN	> ONE HEARING MEAN	UNKNOWN HEARING COUNT MEAN
ALL JURISDICTIONS	24.3	22.1 (n= 288 of 289)	25.7 (n= 365 of 385)	29 (n= 45 of 49)	10.6 (n= 5 of 5)
HUMBOLDT	28	26.9 (n= 209 of 210)	28.3 (n= 298 of 298)	31.6 (n= 33 of 34)	N/A
LAKE	10.2	N/A	9.1 (n= 30 of 49)	20.7 (n= 3 of 6)	10.6 (n= 5 of 5)
MENDOCINO	22.9	22.9 (n= 3 of 3)	N/A	N/A	N/A
MONTEREY	26.5	N/A	27.1 (n= 3 of 3)	24.5 (n= 1 of 1)	N/A
NEVADA	7.6	7.6 (n= 54 of 54)	N/A	N/A	N/A
SAN LUIS OBISPO	16	N/A	16.3 (n= 27 of 28)	13.3 (n= 3 of 3)	N/A
SANTA BARBARA	13.2	13.4 (n= 8 of 8)	N/A	11.1 (n= 1 of 1)	N/A
SANTA CRUZ	10.1	9.6 (n= 9 of 9)	11.5 (n= 3 of 3)	N/A	N/A
SONOMA	23.4	13.5 (n = 5 of 5)	27.7 (n= 4 of 4)	31.5 (n= 4 of 4)	N/A

This pattern holds true in most instances at the jurisdiction-scale. In Humboldt and Sonoma, where we previously noted that the presence of hearings is more evenly mixed, we see gradual increases in mean approval timeframes as jurisdictions apply more hearings to observations. Approval timeframes for Humboldt observations without hearings are about five percent shorter than the jurisdiction mean, while hearings add

around a month on average to an observation's approval timeframe. The difference is much starker in Sonoma, where waiving a hearing cuts approval timeframe by nearly half. Lake and Santa Cruz approval times also tend to increase as the number of hearings increases.

In Monterey, San Luis Obispo, and Santa Barbara, however, we see the pattern reverse, and observations with more hearings are associated with shorter approval timeframes. The sample size in each of these jurisdictions is small, so drawing strong conclusions from these results may be unsound. However, we do reiterate that each of these jurisdictions is relatively rigid in its application of hearings, with Monterey and San Luis Obispo having required them in all cases and Santa Barbara in almost none. Though the approaches are opposite, the implication remains the same: if jurisdictions can approve projects with hearings more quickly than those without, the hearings may not be contributing constructively to the local review process through the provision of additional information and more scrutiny where needed. The same could be said to a certain extent in Humboldt, where holding multiple hearings is associated with an average approval time frame increase of just 3.6 months, a modest increase of just ten percent over the jurisdiction mean. This could imply that hearings there and elsewhere serve more as a "rubber stamp" on projects than as genuine forums for project analysis and public input.

In sum, our study jurisdictions vary in their application of public hearings to commercial cannabis cultivation projects, often falling at or close to the extremes of applying hearings in all cases or applying them to hardly any. Nearly half of all observations have one hearing, but seeing multiple hearings is unusual. Given the ostensibly controversial nature of cannabis-related activities, the limited instances of multiple public hearings are somewhat surprising. Our analysis reveals a general trend of increasing approval timeframes as jurisdictions hold more hearings for an observation, but the trend's strength varies by jurisdiction and, in some instances, reverses. Our methodology is limited in not considering proposed projects that faced strong scrutiny in the hearing process and thereby failed, and we do not conduct detailed qualitative analysis of what transpired at hearings associated with our observations. However, our results suggest that jurisdictions could shorten approval timeframes by more closely evaluating whether their hearings for commercial cannabis cultivation projects are contributing meaningful analysis to the local review process, especially in cases where there is a weak or inverse relationship between hearings and approval timeframes. We continue using hearings as a factor in additional quantitative analyses below.

F. Quantifying Observations and Summarizing Timeframes by Appeal Status

Administrative appeals are important indicators of local opposition to development projects, through which local objectors can challenge project approvals. Local governments set up these processes as part of their zoning codes to allow appeals of adverse decisions by lower bodies (e.g., the Planning Commission) to higher levels of local government (e.g., the Board of Supervisors). Because local governments develop and control administrative appeal processes, these processes can vary in both their structure and the resulting rate of appeals. Structural differences include whether and how projects can be appealed and whether appellants must post bonds or pay fees to file them. These structural differences determine how simple or onerous it is for aggrieved parties to appeal local government decisions, thereby influencing the rate at which such challenges arise. Therefore, administrative appeal rates can reflect both how local governments choose to encourage (or discourage) opposition through administrative appeals, as well as how local politics might impact land use approvals.

We quantify observations by whether they were administratively appealed in Table 33. As with public hearings, we would have expected a fair number of appeals among the identified observations in our study period. We would expect this due to the presumed controversial nature of cannabis-related activities in general, as well as the cannabis-specific land use impacts to which communities might object at the neighborhood scale, such as odor, water usage, and ambient noise from agricultural and processing equipment. However, our results run contrary to this expectation. Across our 728 observations, we were able to confirm only ten appealed projects, for an overall appeal rate of just 1.4 percent. (We note in the table that there is a small subset of observations for which we cannot determine appeal status with the available data). Mendocino, Monterey, Nevada, and Santa Cruz Counties saw no appeals of locally approved commercial cannabis cultivation projects during our study period. Humboldt, Lake, San Luis Obispo, and Santa Barbara Counties experienced appeal rates ranging from 0.2 percent (Humboldt) to 11 percent (Santa Barbara). Sonoma County saw the highest appeal rate at approximately 23 percent, which is more in line with our expectations. However, when considering that we excluded all of Sonoma's ministerial cannabis permits (up to 100) during our study period as not valid observations, this appeal rate appears more modest.

Table 33: OBSERVATION COUNTS BY APPEAL STATUS AND JURISDICTION						
JURISDICTION	TOTAL OBSERVATIONS	APPEALED	NOT APPEALED	NOT SUBJECT TO APPEAL	APPEAL STATUS UNKNOWN	APPEAL RATE
ALL JURISDICTIONS	728	10	504	214	2	1.4%
HUMBOLDT	542	1	331	210	0	0.2%
LAKE	60	2	56	0	2	3.3%
MENDOCINO	3	0	1	2	0	0%
MONTEREY	4	0	4	0	0	0%
NEVADA	54	0	54	0	0	0%
SAN LUIS OBISPO	31	3	28	0	0	9.7%
SANTA BARBARA	9	1	8	0	0	11%
SANTA CRUZ	12	0	10	2	0	0%
SONOMA	13	3	10	0	0	23.1%

We were able to determine the basis of the administrative appeals in 9 out of 10 cases, and these bases were highly variable. Appeal bases included but were not limited to: objections to the concentration of approved cannabis cultivation projects in each geographic area; failure to comply with the California Environmental Quality Act; failure to comply with other local and state laws; false or misleading statements made by the applicant; the personal character of the applicant; and concerns over safety and security. There are no strong discernible patterns within this small subset of observations, though appellants cite inadequate CEQA review several times. Of the appealed observations for which we were able to determine an appeal basis, four out of nine (about 44 percent) are associated with inadequate CEQA claims.

We summarize approval timeframes by appeal status and jurisdiction in Table 34. We would reasonably expect appealed observations to experience longer approval timeframes since an appeal stays the lower decision maker's approval and requires scheduling of and preparation for a public hearing. We would expect observations approved through a process lacking access to administrative appeals to see the shortest approval timeframes. There is no definitive trend at the fully aggregated level (likely due to the volume of Humboldt zoning clearance observations not subject to appeal but with extended approval timeframes), though appealed observations have overall mean approval timeframes approximately four percent longer than those that were subject to appeal but not appealed. Where comparisons can be made at the

jurisdiction scale, the expected trend holds in nearly all cases. In jurisdictions where subsets of observations are not subject to administrative appeals (Humboldt, Mendocino, and Santa Cruz), these observations saw consistently shorter mean approval timeframes than their counterparts that were subject to appeal. Additionally, appealed observations generally experienced mean approval timeframes longer than those that were not and longer than the jurisdiction mean. In San Luis Obispo, the difference was just an approximate four percent increase, but the difference was much more considerable in other jurisdictions (for example, over 77 percent in Lake and nearly 60 percent in Humboldt). The one exception is Santa Barbara, where the one appealed observation had a shorter approval timeframe than the other eight observations (a -17.3% difference in timeframe). Given the small sample size, this is unlikely to be a meaningful counterexample.

Table 34: MEAN TIMEFRAMES (IN MONTHS) BY JURISDICTION AND APPEAL STATUS

JURISDICTION	MEAN TIMEFRAME OVERALL	APPEALED	NOT APPEALED	NOT SUBJECT TO APPEAL	APPEAL STATUS UNKNOWN	% DIFFERENCE APPEALED VERSUS NOT APPEALED
ALL JURISDICTIONS	24.3	22.7 (n = 10 of 10)	23.4 (n=480 of 502)	26.6 (n= 213 of 214)	NO DATA (n = 0 of 2)	-2.5%
HUMBOLDT	28	45.3 (n = 1 of 1)	28.6 (n= 330 of 331)	26.9 (n= 209 of 210)	N/A	+58.5%
LAKE	10.2	17.5 (n= 2 of 2)	9.9 (n = 36 of 56)	N/A	NO DATA (n= 0 of 2)	+77.5%
MENDOCINO	22.9	N/A	29.9 (n= 1 of 1)	19.4 (n= 2 of 2)	N/A	N/A
MONTEREY	26.5	N/A	26.5 (n= 4 of 4)	N/A	N/A	N/A
NEVADA	7.6	N/A	7.6 (n = 54 of 54)	N/A	N/A	N/A
SAN LUIS OBISPO	16	16 (n= 3 of 3)	15.5 (n = 27 of 28)	N/A	N/A	+3.8%
SANTA BARBARA	13.2	11.1 (n= 1 of 1)	13.4 (n= 8 of 8)	N/A	N/A	-17.3%
SANTA CRUZ	10.1	N/A	12 (n= 10 of 10)	21 DAYS (n= 2 of 2)	N/A	N/A
SONOMA	23.4	29 (n= 3 of 3)	21.7 (n= 10 of 10)	N/A	N/A	+33.6%

Given the small number of administrative appeals among our identified observations (and the relatively small number of observations in the jurisdictions in which appeals seem most likely to occur), it is difficult to draw definitive conclusions regarding appeals in the local cannabis regulatory space. Our methodology is limited in this regard in that we did not examine commercial cannabis cultivation projects that jurisdictions disapproved through the local appeals process. Furthermore, we know of additional appealed projects outside of our study period, but we are unable to say whether these additional appeals would meaningfully change the overall observed appeal rate. However, the low overall appeal rate is itself an important finding. It may indicate that jurisdictions have done a fair job in crafting their cannabis regulations to prevent potential land use conflicts or have allowed adequate public discourse at other points in the review process, lessening the need for appeals. Alternatively, this could demonstrate that the perceived controversial nature of cannabis-related activities is not as strong as suggested in the literature and media, at least in our permissive study jurisdictions or during our study period. Since projects subject to appeal tend to see longer approval timeframes than those that are not—and those that are ultimately appealed longer timeframes still—jurisdictions may consider whether providing an appeal process for all commercial cannabis cultivation projects is a necessary component of their local regulatory systems. As with hearings, we continue using administrative appeals as a factor in additional quantitative analyses below.

G. Quantifying Observations and Summarizing Timeframes by CEQA Mechanisms

Conducting environmental review pursuant to the California Environmental Quality Act (CEQA) is a critical component of local regulatory processes across industries and land use types in California. CEQA compliance is especially complex for commercial cannabis activities, in part due to the interfacing between local regulatory systems and state cannabis licensing requirements. For reference, we discuss CEQA issues relevant to commercial cannabis cultivation at length above. In this section, we examine and quantify how our study jurisdictions conducted environmental review for our identified observations during our study period. We quantify observations by the types of CEQA mechanisms jurisdictions applied to them, and we compare this to project outcomes, such as approval timeframes and hearings.

We provide observation counts by most intensive CEQA determination and jurisdiction in Table 35. Before describing these results, we define several terms to assist the reader in understanding how we present information throughout this section.

- We use the term “most intensive CEQA determination” to describe the most intensive environmental determination which a jurisdiction applied to an observation. We order the observed CEQA determination types in Table 35 left-to-right from most-intensive (Mitigated Negative Declaration or MND) to least-intensive (ministerial exemption). While a jurisdiction may apply multiple CEQA determinations to a given observation (especially if the observation required multiple approvals over time), we classify observations by the most-intensive determination ever applied as an indicator of the rigor of environmental review which the observation underwent through the local review process.
- CEQA provides for multiple mechanisms by which a jurisdiction can “tier” environmental review for a particular project against a previously adopted environmental document. The only CEQA tiering mechanism cited by our study jurisdictions is §15168, which allows a jurisdiction to determine a subsequent project as within the scope of a previously adopted Program Environmental Impact Report (PEIR) and to not prepare a new environmental document for the project. We use the term “statutory tiering” to describe when a jurisdiction makes this determination for an observation and cites §15168.
- For a small subset of observations, Humboldt County cited CEQA §15162, determining projects to be “consistent” with the previously adopted environmental documents for its commercial cannabis ordinances and not preparing additional CEQA documentation. We use the term “consistency”

to describe when the jurisdiction made this determination for an observation.

Table 35: OBSERVATION COUNTS BY MOST INTENSIVE CEQA DETERMINATION AND JURISDICTION

JURISDICTION	TOTAL OBSERVA-TIONS	MND	ADDEN-DUM	STATU-TORY TIERING	CONSIST-ENCY	CATEGOR-ICAL EXEMP-TION	MINISTER-IAL EXEMP-TION	UNKNOWN
ALL JURISDICTIONS	728	65 (8.9%)	422 (58.0%)	58 (8.0%)	13 (1.8%)	154 (21.2%)	11 (1.5%)	5 (0.7%)
HUMBOLDT	542	6 (1.1%)	415 (76.6%)	0	13 (2.4%)	92 (17.0%)	11 (2.0%)	5 (0.9%)
LAKE	60	35 (58.3%)	0	0	0	25 (36.7%)	0	0
MENDOCINO	3	0	0	2 (66.7%)	0	1 (33.3%)	0	0
MONTEREY	4	0	0	0	0	4 (100%)	0	0
NEVADA	54	0	0	54 (100%)	0	0	0	0
SAN LUIS OBISPO	31	21 (67.7%)	0	0	0	10 (32.3%)	0	0
SANTA BARBARA	9	0	7 (77.8%)	2 (22.2%)	0	0	0	0
SANTA CRUZ	12	0	0	0	0	12 (100%)	0	0
SONOMA	13	3 (23.1%)	0	0	0	10 (76.9%)	0	0

Table 36 demonstrates the striking diversity in approaches that jurisdictions took in conducting environmental review for individual projects. In Humboldt alone, we identified six different CEQA mechanisms applied to observations.[218] Other jurisdictions used fewer mechanisms, but even at the jurisdiction-scale, we observe most other localities applying different CEQA tools to different observations. Monterey, Santa Cruz, and Nevada Counties are the only jurisdictions that applied the same environmental determination to all observations. Monterey and Santa Cruz (both of which utilize local cannabis business licensing components in their review processes) used only categorical exemptions. Nevada (which approved all observations through a Pathway 4

[218] We note there is a small subset of Humboldt zoning clearance observations for which the most intensive CEQA determination that we could confirm was a ministerial exemption. It is possible that the jurisdiction adopted subsequent CEQA addenda for these observations as it did for many others, but we do not have adequate data to confirm this. We could exclude these observations from our analyses as not compliant with site-specific environmental review requirements for state annual cannabis licensing. However, we chose to include them to demonstrate the diversity of approaches Humboldt has taken in conducting environmental review for its observations over time. Additionally, though the jurisdiction considers its zoning clearances to be ministerial, we classify them as "quasi-discretionary," and the jurisdiction has identified a procedure for satisfying the site-specific environmental review requirements for such observations (unlike ministerial approvals in Sonoma or Yolo, for example).

process) utilized statutory tiering in all cases. We note that jurisdictions did not adopt an Environmental Impact Report (EIR) for any observation during our study period, and this is somewhat surprising given the scale and intensity of some project proposals. For example, Humboldt County adopted a Mitigated Negative Declaration (SCH #2020070339) when approving a relatively large project spanning over 5.73 acres of mixed-light cultivation. Environmental groups brought a lawsuit against Humboldt over this approval, arguing local staff had performed inadequate environmental analysis and contending that the project required an EIR given its size and setting (Northcoast Environmental Center, 2023). The Superior Court ruled against the petitioners on December 29, 2022; the case is on appeal with the State of California First Appellate District Division One Court (*Northcoast Environ. Ctr. v. Cty. of Humboldt)*.

We observe other unexpected outcomes as well that cannot be fully accounted for by CEQA itself or the jurisdictions' commercial cannabis ordinances. For example, Lake, San Luis Obispo, and Sonoma Counties are all Pathway 1 jurisdictions (requiring only a discretionary land use entitlement for commercial cannabis cultivation), and each either adopted a Mitigated Negative Declaration (MND) or applied categorical exemptions to all their observations. Lake and San Luis Obispo adopted a higher proportion of MNDs (over half in each jurisdiction), while Sonoma applied a higher percentage of categorical exemptions. However, there does not appear to be a statutory reason for applying different mechanisms to different projects, and we have been unable to confirm why these jurisdictions took the approaches they did.

Additionally, we note the frequency with which jurisdictions adopted CEQA addenda when conducting environmental review for individual projects, doing so for over 55 percent of observations in the aggregate. In general, CEQA addenda are usually associated with large-scale development projects which may cause additional impacts not accounted for under a pertinent previously adopted environmental document; the addendum provides the opportunity for analyzing and mitigating those project-specific impacts.

However, both Humboldt and Santa Barbara Counties adopted addenda in approving most of their cannabis cultivation projects. Humboldt adopted addenda for nearly three-quarters of its observations, even though most cannabis agriculture in Humboldt conforms to the small-scale, legacy typology described elsewhere. Furthermore, we have identified numerous instances where Humboldt initially approved an observation in conjunction with a categorical or ministerial exemption and then subsequently adopted and noticed an addendum for that same observation, sometimes months later. In Santa Barbara, nearly 80 percent of observations are associated with an addendum, even though the jurisdiction adopted a Program Environmental Impact Report for its commercial cannabis ordinances and could theoretically invoke CEQA

§15168 and tier off that PEIR for these observations. Our methodology is limited in that we did not interview local stakeholders about why jurisdictions chose the CEQA approaches they did, and examining all environmental documentation in-depth for all observations was outside the scope of our research protocol. However, this unusual application of CEQA addenda to commercial cannabis cultivation projects suggests that jurisdictions may be altering their local review procedures in response to state annual cannabis licensing requirements. Alternatively, this application of multiple determinations onto a single approval might indicate that jurisdictions are attempting to "cover the bases" in the uncertainty of what constitutes adequate environment review in the cannabis regulatory space.

We also note the prevalence of CEQA tiering among our observations (about eight percent). Both Nevada and Santa Barbara adopted PEIRs for their commercial cannabis ordinances, and both took advantage of the PEIR tiering mechanism provided for under §15168 when approving projects. Nevada did so in all instances, while Santa Barbara did so less often (about 22 percent). Additionally, Mendocino also cited §15168 in certifying the Appendix G CEQA Checklists for its two Pathway 5 observations, though Mendocino does not have a formal PEIR for its cannabis program.

Because different CEQA mechanisms are associated with varying levels of review intensity and scrutiny, we would expect the environmental determinations jurisdictions made in approving commercial cannabis cultivation projects to influence approval timeframes. We summarize approval timeframes by most intensive CEQA determination and jurisdiction in Table 36. As with other analyses, Humboldt's extended mean approval timeframe and the large volume of observations tend to confound overall patterns. Additionally, not every jurisdiction utilized every identified CEQA mechanism in its review processes. However, the expected trend holds in most cases at the jurisdiction scale where comparisons can be made. Humboldt observations associated with categorical exemptions had a mean approval timeframe of 21.4 months, shorter than those with more-intensive review types, such as addenda (at 29.8 months) and MNDs (at 32.6 months). Similarly, in Lake, San Luis Obispo, and Sonoma, observations with categorical exemptions have consistently shorter mean approval timeframes than those observations for which the jurisdictions adopted MNDs. Mendocino and Santa Barbara observations violate the trend, but the sample size is quite small in both instances.

Table 36: MEAN TIMEFRAMES (IN MONTHS) BY MOST INTENSIVE CEQA DETERMINATION AND JURISDICTION								
JURISDICTION	**TOTAL OBSERVATIONS**	**MND**	**ADDENDUM**	**STATUTORY TIERING**	**CONSISTENCY**	**CATEGORICAL EXEMPTION**	**MINISTERIAL EXEMPTION**	**UNKNOWN**
ALL JURISDICTIONS	728	17.4 (n= 51 of 65)	29.5 (n= 420 of 422)	8.2 (n=58 of 58)	23.4 (n= 13 of 13)	18.7 (n= 145 of 154)	21.77 (n=11 of 11)	22.7 (n= 5 of 5)
HUMBOLDT	542	32.6 (n= 6 of 6)	29.8 (n= 413 of 415)	N/A	23.4 (n= 13 of 13)	21.4 (n= 92 of 92)	21.7 (n= 11 of 11)	22.7 (n= 5 of 5)
LAKE	60	11.6 (n= 21 of 35)	N/A	N/A	N/A	8.6 (n= 17 of 25)	N/A	N/A
MENDOCINO	3	N/A	N/A	19.4 (n= 2 of 2)	N/A	29.9 (n=1 of 1)	N/A	N/A
MONTEREY	4	N/A	N/A	N/A	N/A	26.5 (n= 4 of 4)	N/A	N/A
NEVADA	54	N/A	N/A	7.6 (n=54 of 54)	N/A	N/A	N/A	N/A
SAN LUIS OBISPO	31	17.2 (n=21 of 21)	N/A	N/A	N/A	13.2 (n= 9 of 10)	N/A	N/A
SANTA BARBARA	9	N/A	12.7 (n= 7 of 7)	14.8 (n = 2 of 2)	N/A	N/A	N/A	N/A
SANTA CRUZ	12	N/A	N/A	N/A	N/A	10.1 (n=12 of 12)	N/A	N/A
SONOMA	13	27.9 (n=3 of 3)	N/A	N/A	N/A	22 (n=10 of 10)	N/A	N/A

In the Table 37 we cut the data slightly differently to emphasize this point. Rather than summarize approval timeframes by individual CEQA mechanisms, we group the mechanisms as being either project-specific or not. We classify MNDs as project-specific because they are environmental documents that jurisdictions prepare using information and analyses specific to a given proposal to evaluate and mitigate potential impacts. (We would also consider EIRs as project-specific documents, but again, we identified no EIRs among our observations.) We classify all other mechanisms as not project-specific, because they make an environmental determination for an observation with reference to an environmental document previously adopted for the jurisdiction's commercial cannabis ordinances (addenda, statutory tiering, and consistency) or determine a project as pertaining to a class that is exempt from environmental review (categorical and ministerial exemptions). By summarizing the data in this manner, we see observations for which jurisdictions adopted review-intensive MNDs as consistently experiencing longer mean approval timeframes than observations associated with less-intensive review types at the jurisdiction-scale. For observations associated with MNDs,

the average increase in approval times relative to the jurisdiction mean is notably quite consistent across jurisdictions where we can make comparisons, ranging from approximately 7.6 percent in San Luis Obispo to about 19 percent in Sonoma (with Lake and Humboldt in between).

Table 37: MEAN TIMEFRAME (IN MONTHS) BY PROJECT-SPECIFIC CEQA DOCUMENT AND JURISDICTION

JURISDIC-TION	TOTAL OBSERVA-TIONS	MEAN TIME-FRAME OVERALL	# PROJECT-SPECIFIC CEQA DOCU-MENT	PROJECT-SPECIFIC CEQA DOCU-MENT MEAN	PROJECT-SPECIFIC MEAN AS % DIFFER-ENCE OVERALL MEAN	# NO PROJECT-SPECIFIC CEQA DOCU-MENT	NO PROJECT-SPECIFIC CEQA DOCU-MENT MEAN	NO PROJECT-SPECIFIC MEAN AS % DIFFE-RENCE OVERALL MEAN
ALL JURISDIC-TIONS	728	24.3	65 (8.9%)	17.4 (n=51 of 65)	-27.1%	663 (91.1%)	24.9 (n=652 of 663)	+4.4%
HUMBOLDT	542	28	6 (1.1%)	32.6 (n= 6 of 6)	+16.6%	536 (98.9%)	27.9 (n= 534 of 536)	-0.2%
LAKE	60	10.2	35 (58.3%)	11.6 (n= 21 of 35)	+13.1%	25 (41.7%)	8.6 (n=17 of 25)	-16.2%
MENDOCINO	3	22.9	0 (0.0%)	N/A	N/A	3 (100%)	22.9 (n=3 of 3)	0.0%
MONTEREY	4	26.5	0 (0.0%)	N/A	N/A	4 (100%)	26.5 (n=4 of 4)	0.0%
NEVADA	54	7.6	0 (0.0%)	N/A	N/A	54 (100%)	7.6 (n=54 of 54)	0.0%
SAN LUIS OBISPO	31	16	21 (67.7%)	17.2 (n=21 of 21)	+7.6%	10 (32.3%)	13.2 (n= 9 of 10)	-17.6%
SANTA BARBARA	9	13.2	0 (0.0%)	N/A	N/A	9 (100%)	13.2 (n=9 of 9)	0.0%
SANTA CRUZ	12	10.1	0 (0.0%)	N/A	N/A	12	10.1 (n=12 of 12)	0.0%
SONOMA	13	23.4	3 (23.1%)	27.9 (n=3 of 3)	+19.3%	10 (76.9%)	22 (n=10 of 10)	-5.9%

Though our data largely follows the expected trend of more-intensive environmental review types correlating with longer approval timeframes, it is also the case that the time it takes jurisdictions to approve projects using the same CEQA

mechanisms varies significantly across jurisdictions. Take Lake, San Luis Obispo, and Sonoma as examples. We noted earlier these jurisdictions all utilize a similar Pathway 1 process to approve commercial cannabis cultivation projects, and each also applied either a categorical exemption or adopted an MND in approving all their observations. These are presumably similarly regulated observations, yet the temporal outcomes are quite divergent. Lake approved MND projects in 11.6 months on average, which is quicker than it took San Luis Obispo to approve observations with just a categorical exemption. San Luis Obispo approved MND projects in 17.2 months on average, nearly 50 percent longer than in Lake but almost 40 percent quicker than Sonoma's MND observations (at 27.9 months on average). This could imply that jurisdictions conduct vastly different levels of environmental review even when applying similar MND processes. Alternatively, this may be more evidence that the specific approach jurisdictions take in complying with CEQA less meaningfully influences regulatory outcomes than jurisdiction-specific circumstances.

We highlight Monterey as a case in point. Monterey adopted an MND for 45 proposed project sites with existing greenhouses (MRMA, 2020-a) to expedite the CEQA process. Ironically, not one of our observations is located on a site considered by that MND. Rather, all four Monterey observations are associated with categorical exemptions (among the least intensive CEQA mechanisms), yet Monterey also has one of the longest mean approval timeframes (26.5 months), second only to Humboldt. The primary regulatory obstacle for Monterey projects to overcome instead appears to be securing the required local cannabis business permit, locally referred to as a Cannabis Business Permit (MRMA, n.d.). To receive this permit, cultivators must satisfy all terms and conditions of approval associated with their land use entitlement, which can include costly improvements such as installing fire sprinklers in processing buildings and developing water treatment facilities. Thus, in Monterey, the CEQA mechanism is less relevant to approval timeframes than the jurisdiction's particular application of a bifurcated, two-step cannabis approval process. Compare this to Santa Barbara, which also utilizes a Pathway 2 approval process and prepared CEQA addenda for (or tiered off its cannabis ordinance PEIR) in approving its observations. Santa Barbara approved observations in 13.2 months on average, less than half of Monterey's mean approval timeframe.

As a final element in this CEQA discussion, we compared the CEQA mechanisms applied to our observations to hearing counts and appeal status (Table 38). We summarize the data at the fully aggregated level due to the low variability in hearing counts and low appeal rates overall. We would expect more-intensive CEQA mechanisms to be associated with more hearings and higher appeal rates, corresponding to more complex, impactful, or controversial projects. In fact, CEQA

includes noticing and hearing requirements for the adoption of a Mitigated Negative Declaration (which our study jurisdictions did for about ten percent of all observations) to solicit public input and apply appropriate mitigations. However, our analysis identified only a limited association. Over three-quarters of observations associated with MNDs had only one hearing, with just around 16 percent having more than one hearing. Furthermore, while we only identified ten administrative appeals among our observations, and six of them are associated with observations with MNDs, less than 10 percent of MND observations were appealed. If jurisdictions can approve the vast majority of MND projects with just one hearing and avoid considerable appeal rates, it becomes unclear how important the hearings are to the substance of the regulatory and environmental review processes. It also calls into question whether project specific MNDs were the appropriate CEQA mechanism to apply in these cases. Less rigorous and more efficient models may be appropriate for cannabis cultivation projects that are relatively low-impact and/or uncontroversial.

Table 38: OBSERVATIONS BY MOST INTENSIVE CEQA DETERMINATION, HEARING COUNT, AND APPEAL STATUS

# OBSERVATIONS BY HIGHEST-CEQA MECHANISM							
TOTAL OBSERVATIONS	MND	ADDENDUM	STATUTORY TIERING	CONSISTENCY	CATEGORICAL EXEMPTION	MINISTERIAL EXEMPTION	UNKNOWN
728	65 (8.9%)	422 (58.0%)	58 (8.0%)	13 (1.8%)	154 (21.2%)	11 (1.5%)	5 (0.7%)
# OBSERVATIONS BY MOST INTENSIVE CEQA DETERMINATION AND HEARING COUNT							
HEARING COUNT	MND	ADDENDUM	STATUTORY TIERING	CONSISTENCY	CATEGORICAL EXEMPTION	MINISTERIAL EXEMPTION	UNKNOWN
NO HEARING	0	192 (45.5%)	58 (100%)	7 (53.8%)	16 (10.4%)	11 (100%)	0
ONE HEARING	53 (81.5%)	208 (49.3%)	0	6 (46.2%)	118 (76.6%)	0	0
MULTIPLE HEARINGS	11 (16.9%)	22 (5.2%)	0	0	16 (10.4%)	0	0
UNKNOWN	1 (1.5%)	0	0	0	4 (2.6%)	0	5 (100%)
# OBSERVATIONS BY MOST INTENSIVE CEQA DETERMINATION AND APPEAL STATUS							
APPEAL STATUS	MND	ADDENDUM	STATUTORY TIERING	CONSISTENCY	CATEGORICAL EXEMPTION	MINISTERIAL EXEMPTION	UNKNOWN
NOT SJUBECT TO APPEAL	0	185 (43.8%)	2 (3.4%)	7 (53.8%)	4 (2.6%)	11 (100%)	13 (41.9%)
NOT APPEALED	57 (87.7%)	236 (55.9%)	56 (96.6%)	6 (46.2%)	147 (95.5%)	0	16 (51.6%)
APPEALED	6 (9.2%)	1 (0.2%)	0	0	3 (1.9%)	0	0
UNKNOWN	2 (3.1%)	0	0	0	0	0	2 (6.5%)

Another important trend is the prevalence of hearings among observations associated with less-intensive CEQA mechanisms. Unlike with MNDs, the other mechanisms listed in Table 38 do not in and of themselves require noticing or hearings under CEQA. However, we observe our study jurisdictions conducting hearings for observations associated with these other mechanisms. Jurisdictions applied addenda or categorical exemptions to over 75 percent of all observations. Over half of the observations associated with addenda also had one or more hearings, and over 80 percent of observations with categorical exemptions also had one or more hearings. This suggests that the need for public hearings in approving commercial cannabis cultivation projects may be driven largely by the land use approval type which a jurisdiction requires for a particular project rather than by the type of environmental review conducted. For example, recall from previous analyses that both Lake and San Luis Obispo conducted hearings for all observations for which we have adequate data. This was true whether the jurisdiction adopted an MND or applied a categorical exemption because the special permit or conditional use permit processes required of the observations necessitated the hearing regardless.

In sum, jurisdictions apply CEQA in significantly different ways to commercial cannabis cultivation projects. That variability exists even within jurisdictions. More-intensive environmental review generally correlates with longer approval timeframes, but sometimes jurisdictions take substantially longer to approve projects with presumably similar environmental documents or determinations. The land use review process which a jurisdiction applies to cannabis cultivation projects seems to drive public hearings rather than CEQA. Taken together, this might reflect the general disconnect among project characteristics, the intensity of the land use review, and the type of environmental review applied to a project in the local cannabis regulatory space. Since all three of these elements can influence approval timeframes, jurisdictions could improve the efficiency of their local cannabis regulatory programs by better calibrating these elements to each other.

H. Quantifying and Analyzing Observation Terms and Conditions of Approval (TCOA)

In this section, we quantify the terms and conditions of approval (TCOA) that jurisdictions applied to our observations during the local review process. For clarity, we break this discussion into three parts. We start by examining TCOA overall, their types, and their distribution across observations and jurisdictions (1). We then introduce the distinction between generic and site-specific TCOA, analyzing the TCOA relative to the other outcomes discussed, such as approval timeframe, hearings, and appeals (2).

Finally, we analyze TCOA in comparison to measurable site conditions that indicate environmental risk (3).

1. Examining TCOA Overall

Jurisdictions apply TCOA to development projects to address impacts associated with them and to ensure their ongoing compliance with local law. TCOA can include operating standards, required site improvements, and other actions the applicant must take to become (or remain) compliant with local regulations. Jurisdictions can revoke approvals when applicants fail to abide by the TCOA imposed on their projects.

In our Methods and Materials section above we discuss in detail the process through which we classify (or "code") TCOA applied to our identified observations. We code TCOA based on *what they regulate and/or what responsibilities they impose on the applicant.* Our qualitative TCOA coding structure includes ten broad thematic categories: (1) cannabis-specific activities; (2) environment, wildlife, and natural resources; (3) fees and taxes; (4) fire-related conditions; (5) lighting, energy, and noise; (6) permitting procedures, inspections, and compliance; (7) project design; (8) roadways and access; (9) water-related conditions; (10) workplace, operations, and performance standards. Within these thematic categories are numerous subcategories or "codes" which describe what a TCOA imposes on the project. We code every TCOA at least once, but TCOA that regulate multiple aspects of the project are coded for multiple times as applicable.

We summarize the distribution of total TCOA applied to our observations overall and by the jurisdiction in Table 39. We also indicate the number of observations for which we were able to compile complete TCOA information during preliminary data collection. We exclude observations without complete TCOA data from all quantitative analyses pertaining to TCOA. We note there is a subset of Humboldt zoning clearance observations for which we do not have complete TCOA information. Because TCOA associated with these observations tend to be mostly generic—and given the high volume of Humboldt observations generally—we do not believe these exclusions meaningful impact these analyses or our findings.

Table 39: DISTRIBUTION OF TOTAL TCOA BY JURISDICTION									
JURISDICTION	TOTAL OBSERV-ATIONS	# OBSERVATIONS W/ COMPLETE TCOA	MEAN	STANDARD DEVIA-TION	MIN-IMUM	25TH PERCEN-TILE	MEDIAN	75TH PERCEN-TILE	MAX-IMUM
ALL JURISDICTIONS	728	587 (80.6%)	60	22	6	49	59	68	163
HUMBOLDT	542	403 (74.3%)	58	10	27	52	58	64	93
LAKE	60	60 (100%)	88	11	65	83	87	94	130
MENDOCINO	3	3 (100%)	12	10	6	6	6	15	24
MONTEREY	4	4 (100%)	17	3	13	16	17	17	19
NEVADA	54	54 (100%)	26	8	12	20	24	31	49
SAN LUIS OBISPO	31	31 (100%)	79	23	36	65	77	99	124
SANTA BARBARA	9	9 (100%)	29	8	20	25	28	32	44
SANTA CRUZ	12	10 (83.3%)	64	14	39	63	65	67	94
SONOMA	13	13 (100%)	121	37	44	119	128	141	163

We consider the total number of TCOA imposed on an observation as an indicator both of the intensity of local review applied to a project and of the onerousness of remaining compliant with local regulations. The mean TCOA count per observation across the entire dataset is 60. As with most of our analyses, we see considerable variation in this metric across jurisdictions. Sonoma County applies the most TCOA of all jurisdictions, averaging 121 per observation (more than twice the overall mean) and with a maximum of 163 (almost three times the overall mean). Lake and San Luis Obispo Counties apply the next most TCOA, at 88 and 79, respectively. Sonoma and San Luis Obispo have standard deviations greater than that overall (37 and 23 TCOA, respectively), indicating a relatively high degree of variability in the number of TCOA imposed on observations. By comparison, Lake's standard deviation is more modest, at 11 TCOA. This suggests that while all three tend to apply many conditions, Sonoma and San Luis Obispo tend to do so in a manner more reflective of project characteristics or impacts, while Lake's TCOA are more standardized and "boilerplate." Mendocino County applied the fewest TCOA overall, applying as few as six TCOA on its two Pathway 5 observations; this low number is consistent with these observations being annual "ministerial" cannabis authorizations. Monterey County applied the next least TCOA on average (17), considerably fewer than its peer jurisdictions with Pathway 2 approval processes, Santa Barbara County (29) and Santa Cruz County (64). Both Santa Barbara and Nevada County—though situated in different parts of the state and

approving projects of very different sizes—applied a similar (and fairly low) number of TCOA on average, suggesting that jurisdictions with Program Environmental Impact Reports for their commercial cannabis ordinances and conducting environmental review through tiering may be able to utilize fewer TCOA in approving individual projects.

As discussed previously, our qualitative TCOA coding structure allows us to group TCOA into ten general thematic categories. We summarize the distribution of TCOA across the thematic categories overall and by jurisdiction in Table 40. This distribution helps to describe what issues our study jurisdictions are regulating through their local commercial cannabis programs and whether jurisdictions prioritize certain regulatory areas over others.

Table 40: PERCENTAGE TOTAL TCOA BY THEMATIC CATEGORY AND JURISDICTION

JURISDICTION	CANNABIS-SPECIFIC ACTIVITIES	PROJECT DESIGN	ENVIRONMENT, WILDLIFE, & NATURAL RESOURCES	FEES & TAXES	FIRE-RELATED CONDITIONS	LIGHTING, ENERGY, & NOISE	PERMITTING PROCEDURES, INSPECTIONS, & COMPLIANCE	ROAD-WAYS & ACCESS	WATER-RELATED CONDITIONS	WORKPLACE, OPERATIONS, & PERFORMANCE STANDARDS
ALL JURISDICTIONS	6.4%	2.3%	20.2%	8.2%	4.7%	7.0%	27.6%	4.6%	13.1%	5.7%
HUMBOLDT	6.3%	0.7%	16.7%	9.9%	2.6%	7.4%	29.5%	3.8%	16.0%	7.0%
LAKE	4.0%	5.9%	34.0%	4.1%	7.2%	6.6%	19.5%	7.8%	6.8%	4.1%
MENDOCINO	5.6%	0.0%	11.1%	2.8%	2.8%	8.3%	69.4%	0.0%	0.0%	0.0%
MONTEREY	16.7%	0.0%	3.0%	15.2%	0.0%	0.0%	43.9	16.7%	4.5%	0.0%
NEVADA	4.4%	0.9%	21.8%	1.5%	21.7%	2.4%	40.3%	0.93%	3.4%	2.0%
SAN LUIS OBISPO	9.9%	5.1%	26.5%	7.0%	5.2%	9.5%	19.6%	7.3%	3.4%	1.7%
SANTA BARBARA	13.7%	15.6%	4.2%	6.1%	0.0%	3.1%	47.3%	2.7%	6.9%	0.38%
SANTA CRUZ	9.7%	12.2%	14.8%	4.1%	3.6%	3.0%	38.7%	7.3%	3.6%	3.1%
SONOMA	8.6%	4.3%	19.7%	7.9%	13.0%	4.9%	19.6%	3.2%	13.1%	4.8%

The permitting procedures, inspections, and compliance category generally contains codes pertaining to the myriad laws and regulations applicable to cannabis businesses, including securing building permits, executing indemnification agreements, and conforming to plans as approved. This category accounts for the highest proportion of TCOA overall (over 27 percent); in fact, this category accounts for the largest percentage of TCOA in six out of nine study jurisdictions included in our analyses. In the other three (Lake, San Luis Obispo, and Sonoma, three Pathway 1 jurisdictions which

we have frequently compared together), environment-related conditions outnumber the compliance-related ones. Mendocino appears to have a disproportionate number of compliance related TCOA, but this is accounted for by the small sample size (three observations) and that two of these are "ministerial" Pathway 5 observations with as few as six TCOA.

TCOA in the environment, wildlife, and natural resources category represent the second largest group overall, accounting for one-fifth of all TCOA. This category contains codes related to hazardous materials and chemicals, protections for sensitive species, environmental remediation requirements, onsite wastewater treatment systems, and best practices for controlling erosion, dust, and sedimentation. Since outdoor and mixed-light cannabis cultivation is an agricultural activity with significant interactions with the environment, it is unsurprising that so many TCOA pertain to environmental issues. Nevertheless, the proportion is variable at the jurisdiction-scale. Lake, Nevada, and San Luis Obispo apply these TCOA at a rate higher than that overall, whereas Monterey and Santa Barbara—where pre-existing, industrial scale agricultural facilities are common—apply them far less frequently (accounting for just three and four percent, respectively).

The project design category accounts for the smallest proportion of TCOA overall at around two percent. Since this category includes TCOA related to premises security and screening and fencing requirements (that is, measures that could help alleviate neighbor or community concerns about cannabis-related facilities), this is somewhat unexpected. This does appear to be a priority area for Santa Barbara and Santa Cruz (at about 12 and 16 percent of all their TCOA, respectively), while regional peer, Monterey, did not apply a single TCOA in this category.

Reviewing the jurisdiction-level proportions reveals two other notable priority areas. First, Nevada applied the highest percentage of fire related TCOA among our study jurisdictions (over 21 percent). This category includes codes related fire access and circulation standards, fire suppression and water storage, and maintaining appropriate defensible space. This corresponds with local conditions, as Nevada is prone to wildfires. The County's four population centers—Nevada County, Grass Valley, Nevada City, and Truckee—hold CAL FIRE "Very High Fire Hazard Severity Zones (VHFHSZ)" designations.[219] There are concerns among Nevada residents that the County could be the epicenter of California's next wildfire catastrophe, following the Paradise Fire (Buhl, 2022). Nevada City and Grass Valley lie on the "wildland-urban interface," where human development meets undeveloped wildland or vegetative fuels,

[219] *See* California Department of Forestry and Fire Protection (CAL FIRE). (n.d.). *Fire Hazard Severity Zones Map*. https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildfire-preparedness/fire-hazard-severity-zones/fire-hazard-severity-zones-map/.

which was also the case with the Paradise Fire.[220] Researchers estimate that over half of Nevada's cannabis grows are in FHFHSZs (Dillis et al., 2022).

Secondly, Humboldt applied the highest proportion of water-related TCOA at about 16 percent of its total, whereas most other jurisdictions' TCOA are less than ten percent water-related TCOA (with the exception of Sonoma). This is consistent with our understanding of Humboldt's commercial cannabis ordinances, which outline extensive water-related provisions, as discussed on page 143. It is somewhat surprising that other jurisdictions did not apply more water-related TCOA, given cannabis agriculture's potential water impacts and water-related concerns in California more generally.

In Table 41, we partially disaggregate the thematic categories by reporting the individual codes which appeared most frequently overall and by jurisdiction. (For context, we include the thematic category for each reported code as well). We report the top 15 codes overall, and we report the top five to ten codes by jurisdiction, with more codes for jurisdictions with more observations or which apply many TCOA. This provides the reader with a more detailed sense of the TCOA captured by our coding structure, and it again highlights regulatory areas jurisdictions consider important.

Table 41: MOST COMMON TCOA CODES OVERALL AND BY JURISDICTION (WITH THEMATIC CATEGORY)

JURISDICTION	RANK	CODE	CATEGORY	COUNT
ALL JURISDICTIONS	1	PAY FEES FOR PERMIT PROCESSING, INSPECTIONS, AND COMPLIANCE	FEES AND TAXES	1816
	2	COMPLY WITH HAZARD MATERIALS STANDARDS	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	1420
	3	CONSENT TO LOCAL INSPECTIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	1084
	4	COMPLY WITH REGIONAL WATER BOARD REGULATIONS	WATER-RELATED CONDITIONS	1045
	5	CONFORM WITH APPROVED PLANS AND CONDITIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	1038
	6	EXECUTE AND CLEAR COMPLIANCE AGREEMENT	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	1021
	7	GRADING, EROSION, SEDIMENT, DUST, DRAINAGE, AND STORMWATER	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	953
	8	COMPLY WITH ALL STATE AND LOCAL LAWS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	904
	9	PERMIT EXPIRATION	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	902

[220] See *Map Viewer*. (n.d.). https://www.arcgis.com/apps/mapviewer/index.html?layers=a4985d64969743db8feddf01c96c9435.

Table 41: MOST COMMON TCOA CODES OVERALL AND BY JURISDICTION (WITH THEMATIC CATEGORY)				
JURISDICTION	**RANK**	**CODE**	**CATEGORY**	**COUNT**
	10	COMPLY WITH WORKPLACE SAFETY STANDARDS	WORKPLACE, OPERATIONS, AND PERFORMANCE STANDARDS	868
	11	SECURE BUILDING PERMITS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	829
	12	EQUIPMENT AND AMBIENT NOISE STANDARDS	LIGHTING, ENERGY, AND NOISE	795
	13	COMPLY WITH SWRCB REGULATIONS	WATER-RELATED CONDITIONS	745
	14/15	COMPLY WITH AGRICULTURAL EMPLOYEE STANDARDS	WORKPLACE, OPERATIONS, AND PERFORMANCE STANDARDS	663
	14/15	CULTURAL AND ARCHEOLOGICAL RESOURCES	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	663
HUMBOLDT	1	PAY FEES FOR PERMIT PROCESSING, INSPECTIONS, AND COMPLIANCE	FEES AND TAXES	1525
	2	COMPLY WITH REGIONAL WATER BOARD REGULATIONS	WATER-RELATED CONDITIONS	932
	3	COMPLY WITH WORKPLACE SAFETY STANDARDS	WORKPLACE AND OPERATIONS	864
	4	COMPLY WITH HAZARD MATERIALS STANDARDS	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	813
	5	COMPLY WITH ALL STATE AND LOCAL LAWS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	734
	6	CONSENT TO LOCAL INSPECTIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	730
	7	PERMIT EXPIRATION	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	705
	8	COMPLY WITH SWRCB REGULATIONS	WATER-RELATED CONDITIONS	704
	9	COMPLY WITH AGRICULTURAL EMPLOYEE REGULATIONS	WORKPLACE, OPERATIONS, AND PERFORMANCE STANDARDS	653
	10	EQUIPMENT AND AMBIENT NOISE STANDARDS	LIGHTING, ENERGY, AND NOISE	634
LAKE	1	GRADING, EROSION, SEDIMENT, DUST, DRAINAGE, AND STORMWATER	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	448
	2	COMPLY WITH HAZARD MATERIALS STANDARDS	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	444

Table 41: MOST COMMON TCOA CODES OVERALL AND BY JURISDICTION (WITH THEMATIC CATEGORY)				
JURISDICTION	**RANK**	**CODE**	**CATEGORY**	**COUNT**
	3	ACCESSIBILITY REQUIREMENTS	PROJECT DESIGN	224
	4	CONSENT TO LOCAL INSPECTIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	223
	5	CONFORM TO APPROVED PLANS AND CONDITIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	166
	6	IMPROVE ROADWAYS, DRIVEWAYS, AND INTERSECTIONS	ROADWAYS AND ACCESS	162
	7	UTILIZE LEGAL, ONSITE WATER SOURCE	WATER-RELATED CONDITIONS	156
	8	AIR QUALITY DISTRICT REGULATIONS	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	146
	9	OBTAIN ALL REQUIRED APPROVALS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	137
	10	AIR POLLUTION AND EMISSIONS	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	136
MENDOCINO	1	COMPLY WITH ALL STATE AND LOCAL LAWS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	7
	2/3/4	EXECUTE AND CLEAR COMPLIANCE AGREEMENT	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	3
	2/3/4	RECORD INDEMNIFICATION AGREEMENT	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	3
	2/3/4	SECURE CERTIFICATE OF OCCUPANCY	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	3
MONTEREY	1	PAY FEES FOR PERMIT PROCESSING, INSPECTIONS, AND COMPLIANCE	FEES AND TAXES	10
	2/3	CONFORM TO APPROVED PLANS AND CONDITIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	8
	2/3	CONSENT TO LOCAL INSPECTIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	8
	4	OBTAIN ALL REQUIRED APPROVALS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	5
NEVADA	1	SECURE BUILDING PERMITS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	123
	2	CONFORM TO APPROVED PLANS AND CONDITIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	96

Table 41: MOST COMMON TCOA CODES OVERALL AND BY JURISDICTION (WITH THEMATIC CATEGORY)				
JURISDICTION	**RANK**	**CODE**	**CATEGORY**	**COUNT**
	3	ONSITE WASTEWATER TREATMENT SYSTEMS	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	82
	4	WASTE CONTAINMENT AND DISPOSAL	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	64
	5	COMPLY HAZARD MATERIALS STANDARDS	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	61
	6	MAINTAIN REQUIRED SETBACKS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	57
	7	COMPLY WITH ALL STATE AND LOCAL LAWS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	51
	8	RECORD INDEMNIFICATION AGREEMENT	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	49
	9	LOCAL FIRE INSPECTION/APPROVAL REQUIRED	FIRE-RELATED CONDITIONS	47
	10	INSTALL FIRE ACCESS BOX	FIRE-RELATED CONDITIONS	44
SAN LUIS OBISPO	1	BEST MANAGEMENT PRACTICES FOR BIOLOGICAL AND HYDROLOGICAL RESOURCES	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	212
	2	GRADING, EROSION, SEDIMENT, DUST, DRAINAGE, AND STORMWATER	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	177
	3	CONFORM TO APPROVED PLANS AND CONDITIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	122
	4	COMPLY WITH HAZARDOUS MATERIALS STANDARDS	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	65
	5	PERMIT EXPIRATION	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	57
	6	WASTE CONTAINMENT AND DISPOSAL	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	56
	7	PAY FEES FOR PERMIT PROCESSING, INSPECTIONS, AND COMPLIANCE	FEES AND FAXES	53
	8	EXTERIOR LIGHTING STANDARDS	LIGHTING, ENERGY, AND NOISE	47
	9	OBTAIN ENCROACHMENT PERMIT	ROADWAYS AND ACCESS	44
	10	METER WATER USAGE	WATER-RELATED CONDITIONS	43

Table 41: MOST COMMON TCOA CODES OVERALL AND BY JURISDICTION (WITH THEMATIC CATEGORY)				
JURISDICTION	**RANK**	**CODE**	**CATEGORY**	**COUNT**
SANTA BARBARA	1	CONFORM TO APPROVED PLANS AND CONDITIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	41
	2	CONSENT TO LOCAL INSPECTIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	22
	3	PAY FEES FOR PERMIT PROCESSING, INSPECTIONS, AND COMPLIANCE	FEES AND TAXES	16
	4	PRINT CONDITIONS ON PROJECT PLANS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	15
	5	PERMIT REVISIONS BY APPLICANT	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	14
SANTA CRUZ	1	CONFORM TO APPROVED PLANS AND CONDITIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	53
	2	SECURE BUILDING PERMITS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	47
	3	SECURITY PLAN	PROJECT DESIGN	29
	4	CONSENT TO LOCAL INSPECTIONS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	27
	5	PAY FEES FOR PERMIT PROCESSING, INSPECTIONS, AND COMPLIANCE	FEES AND TAXES	23
SONOMA	1	GRADING, EROSION, SEDIMENT, DUST, DRAINAGE, AND STORMWATER	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	122
	2	WASTE CONTAINMENT AND DISPOSAL	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	59
	3	PAY FEES FOR PERMIT PROCESSING, INSPECTIONS, AND COMPLIANCE	FEES AND TAXES	56
	4	LOCAL FIRE INSPECTION/APPROVAL REQUIRED	FIRE-RELATED CONDITIONS	55
	5	ONSITE WASTEWATER TREATMENT SYSTEM	ENVIRONMENT, WILDLIFE, AND NATURAL RESOURCES	49
	6	METER WATER USAGE	WATER-RELATED CONDITIONS	46
	7	APPLICATION AND PLAN REQUIREMENTS	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	38

Table 41: MOST COMMON TCOA CODES OVERALL AND BY JURISDICTION (WITH THEMATIC CATEGORY)				
JURISDICTION	**RANK**	**CODE**	**CATEGORY**	**COUNT**
	8	WATER CONSERVATION MEASURES	WATER-RELATED CONDITIONS	31
	9	SMOKING ONSITE	WORKPLACE, OPERATIONS, AND PERFORMANCE STANDARDS	30
	10	PERMIT REVISIONS BY APPLICANT	PERMITTING PROCEDURES, INSPECTIONS, AND COMPLIANCE	28

In Table 42, we examine the mean TCOA count by approval pathway and jurisdiction. Across all jurisdictions, Pathway 1 had the most TCOA, with Sonoma county applying the most TCOA (121). As described in the tables above, the majority of TCOA in Sonoma pertain to the environment, wildlife, and natural resources (19.7%) with highest rank of codes applying to grading, erosion, sediment, dust, drainage, and stormwater. These results are similar to those we found earlier in our timeframe analysis in Table 30, where Pathway 1, with fewer regulatory steps than Pathways 2 and 4, nonetheless produces more complex regulatory outcomes for applicants.

Table 42: MEAN TCOA COUNT BY APPROVAL PATHWAY AND JURISDICTION							
JURISDICTION	**# OBSERVATIONS W/ COMPLETE TCOA DATA**	**MEAN TCOA COUNT OVERALL**	**PATHWAY 1 MEAN**	**PATHWAY 2 MEAN**	**PATHWAY 3 MEAN**	**PATHWAY 4 MEAN**	**PATHWAY 5 MEAN**
ALL JURISDICTIONS	587 (80.6%)	60	64 (n = 507)	42 (n = 23)	N/A	26 (n = 55)	6 (n = 2)
HUMBOLDT	403 (74.3%)	58	58 (n = 403)	N/A	N/A	N/A	N/A
LAKE	60 (100%)	88	88 (n = 60)	N/A	N/A	N/A	N/A
MENDOCINO	3 (100%)	12	N/A	N/A	N/A	24 (n = 1)	6 (n = 2)
MONTEREY	4 (100%)	17	N/A	17 (n = 4)	N/A	N/A	N/A
NEVADA	54 (100%)	26	N/A	N/A	N/A	26 (n = 54)	N/A
SAN LUIS OBISPO	31 (100%)	79	79 (n = 31)	N/A	N/A	N/A	N/A
SANTA BARBARA	9 (100%)	29	N/A	29 (n = 9)	N/A	N/A	N/A
SANTA CRUZ	10 (83.3%)	64	N/A	64 (n = 10)	N/A	N/A	N/A
SONOMA	13 (100%)	121	121 (n = 13)	N/A	N/A	N/A	N/A

As a final analysis in this subsection, we determined the number of individual TCOA codes applied by each jurisdiction and the percentage of all possible TCOA codes this represents. These metrics speak to the breadth and variety of regulations and responsibilities that jurisdictions impose through their TCOA on commercial cannabis cultivation projects. We report these results in Table 43. We would expect jurisdictions with more observations to utilize a higher percentage of all possible TCOA codes as they respond to diverse proposals and site conditions across a broader field of observations. We would also expect jurisdictions that tend to apply more TCOA generally to utilize a higher percentage of all possible codes. Where this is the case, these jurisdictions may use a wider range of TCOA to reflect nuanced consideration of local conditions, or they may instead impose a wide range of TCOA without consideration of local conditions (at the extreme, through random use of boilerplate TCOA). Where this is not the case and jurisdictions apply many TCOA but across a limited range of possible codes, these jurisdictions may be using just a limited set of

boiler plate TCOA across most or all projects, reflecting a lack of nuanced site analysis; alternatively, such jurisdictions may just be careful in what they impose.

Table 43: TOTAL UNIQUE TCOA CODES APPEARING IN EACH JURISDICTION

JURISDICTION	TOTAL OBSERVATIONS	# OBSERVATIONS W/ COMPLETE TCOA	MEAN TCOA COUNT	# TCOA CODES	# TOCA CODES AS % OF ALL POSSIBLE CODES
ALL JURISDICTIONS	728	587 (80.6%)	60	238	100.0%
HUMBOLDT	542	403 (74.3%)	58	179	75.2%
LAKE	60	60 (100%)	88	99	41.6%
MENDOCINO	3	3 (100%)	12	22	9.2%
MONTEREY	4	4 (100%)	17	16	6.7%
NEVADA	54	54 (100%)	26	74	31.1%
SAN LUIS OBISPO	31	31 (100%)	79	119	50.0%
SANTA BARBARA	9	9 (100%)	29	38	16.0%
SANTA CRUZ	12	10 (83.3%)	64	72	30.3%
SONOMA	13	13 (100%)	121	126	52.9%

Jurisdictions ranged in using from approximately seven percent of all possible TCOA codes to over 75 percent. Mendocino represents the minimum, which makes sense given it imposes the least TCOA overall. Humboldt, which produced the most observations, also utilized the broadest set of TCOA codes, over three-quarters of those in our coding structure. This confirms our expectations that in approving many projects across diverse landscapes, a jurisdiction requires a robust set of TCOA to respond to conditions. While Humboldt tends to drive overall trends, it is nevertheless notable that this is true even though Humboldt applies just an average number of TCOA generally. This may indicate that while Humboldt requires many different rules to address its local circumstances, planners and decision makers apply those rules in an intentional manner.

In comparison, Santa Cruz imposed a similar number of TCOA per observation on average as Humboldt (64 versus 58, respectively) but utilized only about one-third of all available TCOA codes. Though Santa Cruz only produced a dozen observations during our study period, this relatively small proportion of total available codes may indicate a narrower range of regulatory interests than in Humboldt. Interestingly, Santa Cruz's regional peers, Santa Barbara, and Monterey (which also utilize local cannabis business licensing components), imposed fewer TCOA on average but also through a

relatively small proportion of total possible codes (16 and nine percent, respectively). This suggests that the two-step, Pathway 2 review processes that these jurisdictions utilize are not contributing to either the number of TCOA applied or the range of regulatory areas addressed through those processes.

Comparing the three jurisdictions which apply the most TCOA to observations on average (Lake, San Luis Obispo, and Sonoma) reveals further patterns consistent with our expectations. Sonoma and San Luis Obispo impose 121 and 79 TCOA per project on average, respectively, and both utilize more than half of all available TCOA codes (the next highest proportion after Humboldt). Conversely, Lake imposed 88 TCOA per project on average but used a smaller proportion of overall codes at about 40 percent. This implies Lake is imposing a more limited set of repetitive, generic conditions covering a narrower set of regulatory areas than Sonoma and San Luis Obispo. This conforms to our subjective experience in coding the TCOA. For example, Lake imposes approximately six distinct but boilerplate TCOA addressing hazard materials on nearly every observation. (We reported this code as Lake's second most frequent in Table 41 above.) Taken together, these findings suggest that our study jurisdictions exhibit different behaviors in imposing TCOA and that the extent to which these TCOA reflect project characteristics and on-the-ground conditions varies from place to place. We explicitly treat this theme in the next two subsections.

As the final analysis in this subsection, we summarize the distribution of TCOA that refers to and requires compliance with other regulatory systems, what we call "TCOA related to interlocking regulatory systems" (Table 44). Each jurisdiction's ordinance incorporates references to other state regulatory systems as requirements for compliance with the county ordinance. For example, TCOAs may require that cultivators comply with the SWRCB General Order, their CDFW Lake and Streambed Alteration Agreement, the rules outlined in the MAUCRSA, and any conditions imposed by the DCC on their state license, among others. This creates a "regulatory cascade" whereby state regulatory agencies such as SWRCB and CDFW apply regulations to cannabis operators through the Cannabis Cultivation General Order, and Lake and Streambed Alteration (LSA) Agreement, the DCC applies its regulations on cultivators as conditions to maintain a state license, and finally, local governments incorporate the existing state regulations promulgated by different state government agencies into their own ordinances and approval process. The result is duplicative and overlapping regulation, whereby cultivators comply with certain regulations both as part of their state license as well as a TCOA for their local permits. In this regulatory system, a cultivator's failure to comply with state regulations could not only jeopardize their state license, but also their local permit, and creates multiple possible pathways for enforcement against non-compliance by local and state government.

Each jurisdiction assigns TCOA related to these interlocking regulatory systems, with 20.5% of TCOA across all jurisdictions relating to state regulatory systems. A quarter of Mendocino's TCOA relate to interlocking regulatory systems.

Table 44: DISTRIBUTION OF TCOA RELATED TO INTERLOCKING REGULATORY SYSTEMS BY JURISDICTION

JURISDICTION	MEAN TCOA COUNT	% TCOA RELATED TO INTERLOCKING REGULATORY SYSTEMS OVERALL	MINIMUM INTERLOCKING TCOA PER OBSERVATION		MEAN INTERLOCKING TCOA PER OBSERVATION		MAXIMUM INTERLOCKING TCOA PER OBSERVATION	
			COUNT	%	COUNT	%	COUNT	%
ALL JURISDICTIONS	60	20.5%	0	0.0%	12	20.1%	23	41.2%
HUMBOLDT	58	23.7%	3	8.3%	14	23.7%	23	41.2%
LAKE	88	16.7%	7	9.2%	15	16.9%	20	27.7%
MENDOCINO	12	25.0%	2	20.8%	3	26.2%	5	33.3%
MONTEREY	17	3.0%	0	0.0%	1	3.2%	1	7.7%
NEVADA	26	12.5%	1	4.5%	3	13.1%	7	23.5%
SAN LUIS OBISPO	79	14.9%	6	10.9%	12	15.4%	18	22.2%
SANTA BARBARA	29	8.8%	2	6.8%	3	8.8%	5	13.2%
SANTA CRUZ	64	9.7%	3	8.6%	6	9.6%	11	16.9%
SONOMA	121	9.0%	5	7.3%	11	9.3%	17	12.0%

As we mentioned earlier, crafting TCOA through the local review process is labor intensive, and we can measure that cost in terms of time. We would expect observations with more TCOA to require longer approval timeframes. As a coarse initial cut of the data, we analyzed whether observations with greater than mean approval timeframes were associated with higher rates of TCOA. We present those results in Table 45, which largely conforms to our expectations. Overall, observations with above-average approval timeframes saw an approximately 13 percent increase in TCOA compared to those approved more quickly. At the jurisdiction scale, San Luis Obispo and Sonoma observations saw the greatest (and very similar) increases, of about 45 and 44 percent, respectively. We have discussed these jurisdictions at length so far, and this is further evidence they behave similarly in applying TCOA. Most other jurisdictions also saw more modest increases in TCOA, suggesting that extended approval timeframes are at least in part reflective of more in-depth project review. It is notable, however, that the relationship between approval timeframes and TCOA is inverse in Lake, Monterey, and Santa Barbara, with more TCOA being applied for projects that took less time to approve.

Table 45: MEAN TCOA COUNT BY APPROVAL TIMEFRAME (IN MONTHS) AND JURISDICTION

JURISDICTION	MEAN TCOA COUNT OVERALL	MEAN TIMEFRAME OVERALL	MEAN TCOA COUNT FOR AT OR BELOW AVERAGE TIMEFRAMES	MEAN TCOA COUNT FOR ABOVE AVERAGE TIMEFRAMES	MEAN TCOA COUNT FOR ABOVE AVERAGE TIMEFRAMES AS % DIFFERENCE OVERALL MEAN
ALL JURISDICTIONS	60	24	55 (n = 292)	62 (n = 232)	+12.7%
HUMBOLDT	58	28	55 (n = 198)	60 (n = 165)	+9.1%
LAKE	88	10.2	89 (n = 24)	88 (n = 14)	-1.1%
MENDOCINO	12	22.9	6 (n = 2)	24 (n = 1)	+300%
MONTEREY	17	26.5	18 (n = 2)	15 (n = 2)	-16.7%
NEVADA	26	7.6	25 (n = 35)	27 (n = 19)	+8.0%
SAN LUIS OBISPO	79	15.5	64 (n = 15)	93 (n = 16)	+45.3%
SANTA BARBARA	29	13.2	32 (n = 6)	24 (n = 3)	-25.0%
SANTA CRUZ	64	10.1	59 (n = 3)	66 (n = 7)	+11.7%
SONOMA	121	23.4	98 (n = 6)	141 (n = 7)	+43.9%

2. Examining Generic and Site-Specific TCOA against Regulatory Outcomes

As discussed in the Materials and Methods on page 86, in addition to coding each TCOA by what or how it regulates, we also code each TCOA as generic or site-specific. Recall that we consider a TCOA to be site-specific if the condition itself incorporates or references specific information about the project's characteristics or site conditions which dictate why the reviewer imposed the TCOA on the project. In other words, the TCOA itself contains evidence that the reviewer analyzed information specific to the project and imposed the TCOA to address that particular circumstance. Otherwise, we code a TCOA as generic. Table 4 above compares generic and site-specific TCOA examples. In this subsection, we summarize the distribution of site-specific TCOA imposed on our observations and analyze the relationships between TCOA and other regulatory outcomes and characteristics, such as approval timeframes, hearings, and CEQA determinations.

We argue that site-specific TCOA indicate the jurisdiction is crafting provisions to reflect local conditions, rather than imposing blanket rules that may not be appropriate or relevant to those conditions or specific project characteristics. While this can provide more tailored and appropriate regulation, it is also more costly and can add delays to approval processes or entail more complicated approval procedures. In comparing the prevalence of site-specific TCOA to other variables, we can assess the regulatory costs associated with this type of review, evaluate the rigor of jurisdiction's local review processes, and consider whether jurisdictions might impose TCOA in response to local opposition or political pressures.

In Table 46 we report the percentage of all TCOA that are site-specific overall and by jurisdiction, along with other summary statistics to aid comparisons. In the aggregate, approximately 20 percent of all TCOA are site-specific, with the average observation having a similar proportion of site-specific TCOA. Patterns in variability at the jurisdiction-scale reinforce many of the observations made in the previous subsection. Humboldt County applies a moderate number of TCOA (58 on average) across a wide range of possible codes (75 percent), with about one-fifth of TCOA being site-specific. Santa Cruz County applies a similar number of TCOA (64) across a narrower range of possible codes (30 percent) but with a greater rate of site-specific TCOA of about 27 percent (the second highest rate after Nevada County). This suggests that while Santa Cruz applies TCOA to fewer regulatory areas, the ones it does apply are more likely to be site-specific, indicating a degree of carefulness in imposing TCOA. On the other hand, while Humboldt requires a broader set of TCOA to address its local concerns, site-specific TCOA are still couched among TCOA that are more likely to be generic.

Table 46: DISTRIBUTION OF SITE-SPECIFIC TCOA BY JURISDICTION						
JURISDICTION	**MEAN TCOA COUNT**	**# TOCA CODES AS % OF ALL POSSIBLE CODES**	**% SITE-SPECIFIC TCOA OVERALL**	**MINIMUM % SITE-SPECIFIC TCOA PER OBSERVATION**	**MEAN % SITE-SPECIFIC TCOA PER OBSERVATION**	**MAXIMUM % SITE-SPECIFIC TCOA PER OBSERVATION**
ALL JURISDICTIONS	60	100.0%	18.7%	0.0%	19.3%	65.5%
HUMBOLDT	58	75.2%	20.9%	0.0%	20.3%	44.4%
LAKE	88	41.6%	6.2%	1.4%	5.8%	12.6%
MENDOCINO	12	9.2%	16.7%	8.3%	25.0%	33.3%
MONTEREY	17	6.7%	24.2%	15.4%	23.7%	29.4%
NEVADA	26	31.1%	38.2%	5.0%	34.7%	65.5%
SAN LUIS OBISPO	79	50.0%	16.3%	2.9%	16.0%	29.8%
SANTA BARBARA	29	16.0%	6.5%	2.6%	6.4%	12.5%
SANTA CRUZ	64	30.3%	27.1%	20.0%	26.8%	35.5%
SONOMA	121	52.9%	12.7%	7.0%	12.7%	16.9%

The jurisdictions which apply the most TCOA on average (Lake, San Luis Obispo, and Sonoma) are again worth comparing here. Sonoma applies the most TCOA on average of any jurisdiction (121), with about 13 percent being site-specific. San Luis Obispo applies fewer TCOA on average (79) but at a higher (though comparable) rate of site-specificity (over 16 percent). In contrast, Lake County applied 88 TCOA to the average project, but only about six percent of TCOA are site-specific, less than half the rate in both Sonoma and San Luis Obispo and the second lowest rate overall. While Sonoma and San Luis Obispo are still applying many generic TCOA, the data confirms our previous suggestion that they do so in a way addressing a broader range of regulatory areas pertinent to particular projects, while Lake observations are more prone to boilerplate TCOA applied with less consideration.

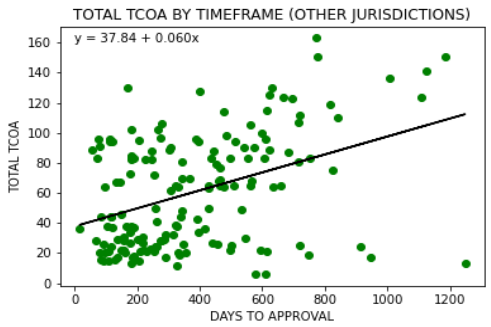
Nevada applied by far the highest rate of site-specific TCOA (over 38 percent), more than double the rate overall and over 40 percent greater than the next highest rate (in Santa Cruz). Nevada did so with a modest mean TCOA count (26) and percentage of total codes (about 31 percent), indicating that decision makers focus on a fairly narrow set of priority areas (like fire-related issues as discussed previously) but do so with a high level of attention. We can characterize Santa Cruz's strategy similarly.

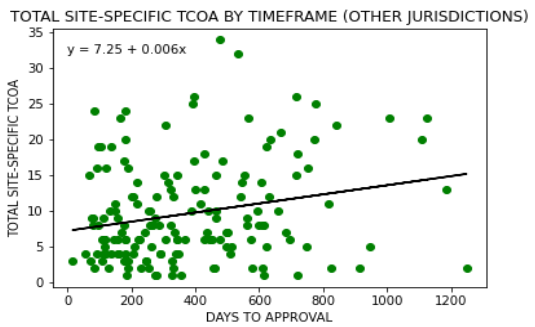
We note there appears to be little correspondence between the percentage of site-specific TCOA applied by jurisdictions and geography, cultivation scale typology, or approval pathways. Monterey uses far more site-specific conditions (over 24 percent) than regional peers San Luis Obispo or Santa Barbara, as does Sonoma over neighboring Lake. Small-scale grows in Nevada have almost six times more site-specific TCOA on average than industrial scale grows in Santa Barbara. Pathway 1 jurisdictions (Humboldt, Lake, San Luis Obispo, and Sonoma) and Pathway 2 jurisdictions (Monterey, Santa Barbara, and Santa Cruz) have notably disparate outcomes among themselves. If we use site-specific TCOA as indicators of the stringency of local review, it appears that presumably similar regulatory systems can produce varying levels of scrutiny. This is further evidence that the way jurisdictions construct their cannabis regulations matters less than the manner in which they apply those regulations to projects.

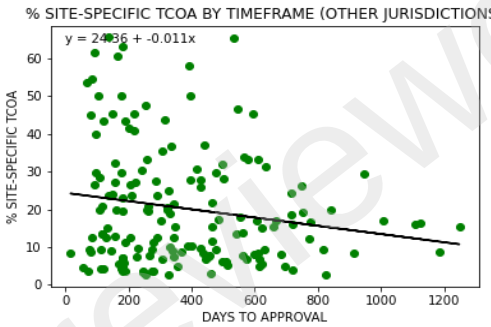
In Table 47, we analyze the percentage of site-specific TCOA by approval timeframe. Across all jurisdictions, there is a slight increase in the percentage of site-specific TCOA for projects that took longer to approve than the average project. We could expect that projects with more site-specific TCOA would take longer to approve as county staff would need more time to tailor and draft site-specific TCOA, however, Mendocino, Monterey, Santa Barbara, and Santa Cruz saw more site-specific TCOA for projects that took less time to approve.

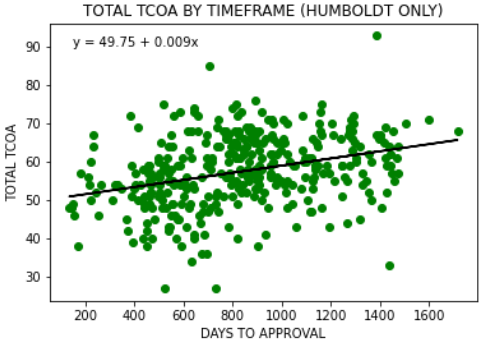
Table 47: MEAN % SITE-SPECIFIC TCOA COUNT BY APPROVAL TIMEFRAME (IN MONTHS) AND JURISDICTION					
JURISDICTION	**MEAN % SITE-SPECIFIC TCOA OVERALL**	**MEAN TIMEFRAME OVERALL**	**MEAN % SITE-SPECIFIC TCOA FOR AT OR BELOW AVERAGE TIMEFRAMES**	**MEAN % SITE-SPECIFIC TCOA FOR ABOVE AVERAGE TIMEFRAMES**	**MEAN % SITE-SPECIFIC TCOA FOR ABOVE AVERAGE TIMEFRAMES AS % DIFFERENCE OVERALL MEAN**
ALL JURISDICTIONS	19.3%	24.3	19.6% (n = 315)	21.2% (n = 248)	+9.3%
HUMBOLDT	20.3%	28	18.8% (n = 220)	22.1% (n = 182)	+8.9%
LAKE	6.1%	10.2	6.4% (n = 24)	6.7% (n = 14)	+15.5%
MENDOCINO	25.0%	22.9	33.3% (n = 2)	8.3% (n = 1)	-66.8%
MONTEREY	23.7%	26.5	24.9% (n = 2)	22.4% (n = 2)	-5.5%
NEVADA	34.7%	7.6	34.2% (n = 35)	35.7% (n = 19)	+2.9%
SAN LUIS OBISPO	16.0%	16	16.4% (n = 17)	16.0% (n = 13)	0.0%
SANTA BARBARA	6.4%	13.2	6.7% (n = 6)	5.5% (n = 3)	-14.1%
SANTA CRUZ	26.8%	10.1	28.4% (n = 3)	26.1% (n = 7)	-2.6%
SONOMA	12.7%	23.4	11.5% (n = 6)	13.7% (n = 7)	+7.9%

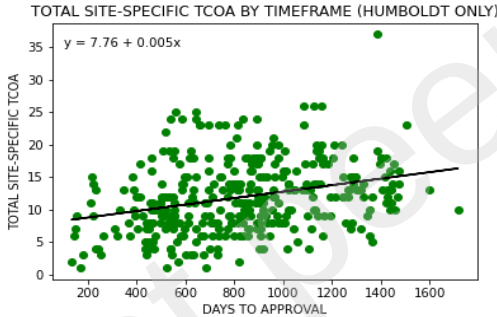
To examine the relationship between approval timeframes and site-specific TCOA in a more continuous manner, we created a series of scatterplots, visualizing the variables against one another in several ways and arranging them in a grid. The first column is the total number of TCOA by approval timeframe; the second column is the total number of site-specific TCOA by timeframe; the third column is the percentage of site-specific TCOA by timeframe. The first row covers observations in all other jurisdictions besides Humboldt; the second column provides only Humboldt observations; the third column provides observations in all jurisdictions. (We provide a breakout between Humboldt and other jurisdictions, as Humboldt has such a large share of total observations, and thus any overall patterns may simply be reflecting dynamics in Humboldt alone.)

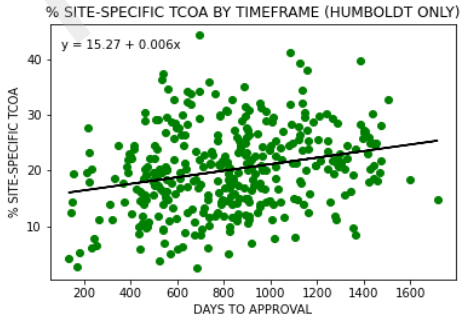


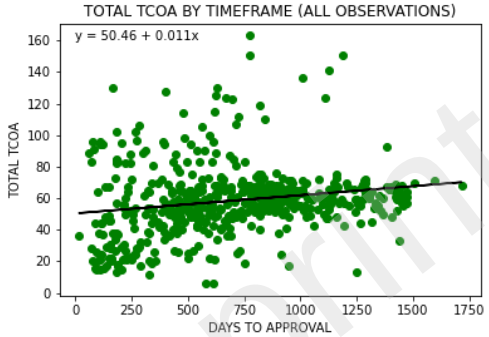


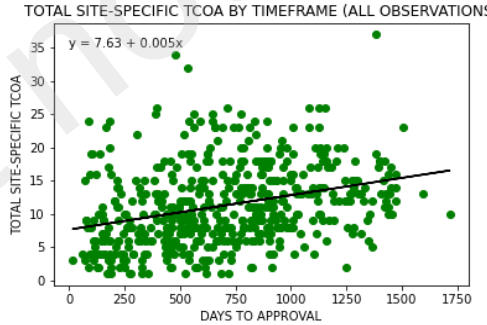


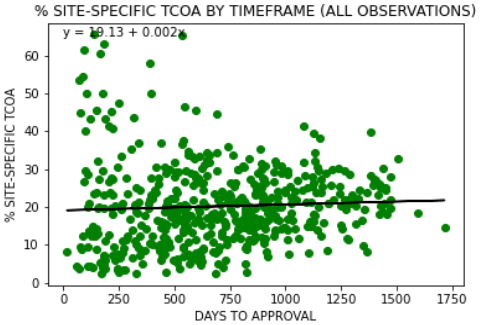












If time to review applications is spent, at least in part, compiling and analyzing information about the risks of a project and developing and preparing TCOA to address those risks, then with longer timeframes, we should see more TCOA and more TCOA tailored to the specific conditions of a site. However, the scatterplots complicate the categorical analysis above, with trends showing only a relatively weak relationship between TCOA and timeframe. We do not see any consistent relationship between the percentage of site-specific TCOA and approval timeframes. These results indicate other factors may be driving approval timeframes besides analysis of risks and preparation of TCOA. These other factors might include delays associated with applicant preparation of required submission materials (especially for small-scale operators who may have limited resources), delays in processing by planning staff because of limited county resources, or uncertainty about how to operate a new regulatory system.

As previously discussed, hearings serve as an opportunity for decision makers to consider local agency and applicant analyses and solicit additional information through public input. In a discretionary review process, the decision maker can modify a project to address site conditions or community concerns. The decision maker can also revise TCOA applied to projects by jurisdiction staff and impose additional TCOA to mitigate anticipated impacts and ensure long-time compliance. Therefore, we would expect to see both more TCOA and a greater proportion of site-specific TCOA when observations are subjected to a hearing process or receive multiple hearings. Considerable increases in either metric could also indicate community opposition to commercial cannabis cultivation projects and decision-makers attempts to address that concern through the imposition of TCOA.

We summarize the number of TCOA and the proportion of site-specific TCOA imposed on observations by hearings count overall and by the jurisdiction in Table 48. As before, we use three categories to classify observations by hearings count: no hearing, one hearing, or multiple hearings. Our analysis produced mixed results. For the number of TCOA, the expected trend holds for observations overall and is consistent across most study jurisdictions. In Humboldt, observations with one hearing are associated with about 20 percent more TCOA on average than observations approved without hearings, with just a modest additional increase when associated with multiple hearings. Sonoma observations demonstrate a similar pattern. Observations in Pathway 2 jurisdictions (Monterey, Santa Barbara, and Santa Cruz) also see increases in TCOA as observations receive increased public scrutiny. However, Lake and San Luis Obispo—which applied hearings to all their observations—violate the trend. Though the same size is small, in these counties observations with multiple hearings had fewer TCOA on average than those with just one hearing, calling into question the purpose of these hearings.

Table 48: MEAN TCOA COUNT AND % SITE-SPECIFIC TOCA BY HEARINGS COUNT AND JURISDICTION										
JURISDICTION	MEAN		NO HEARING		ONE HEARING		> ONE HEARING		UNKNOWN	
	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC
ALL JURISDIC-TIONS	60	19.3%	40 (n = 143)	22.6% (n = 143)	65 (n = 382)	18.8% (n = 382)	72 (n = 49)	19.8% (n = 49)	80 (n = 5)	6.8% (n = 5)
HUMBOLDT	58	20.3%	48 (n = 74)	15.7% (n = 74)	59 (n = 295)	21.1% (n = 295)	64 (n = 34)	23.5% (n = 34)	N/A	N/A
LAKE	88	6.1%	N/A	N/A	90 (n = 49)	6.1% (n = 49)	83 (n = 6)	5.7% (n = 6)	80 (n = 5)	6.8% (n = 5)
MENDOCINO	12	25.0%	12 (n = 3)	25.0% (n = 3)	N/A	N/A	N/A	N/A	N/A	N/A
MONTEREY	17	23.7%	N/A	N/A	16 (n = 3)	22.8% (n = 3)	19 (n = 1)	26.3% (n = 1)	N/A	N/A
NEVADA	26	34.7%	26 (n = 54)	34.7% (n = 54)	N/A	N/A	N/A	N/A	N/A	N/A
SAN LUIS OBISPO	79	16.0%	N/A	N/A	81 (n = 28)	16.0% (n = 28)	61 (n = 3)	15.9% (n = 3)	N/A	N/A
SANTA BARBARA	29	6.4%	27 (n = 8)	6.1% (n = 8)	N/A	N/A	44 (n = 1)	9.1% (n = 1)	N/A	N/A
SANTA CRUZ	64	26.8%	59 (n = 7)	28.4% (n = 7)	76 (n = 3)	23.0% (n = 3)	N/A	N/A	N/A	N/A
SONOMA	121	12.7%	90 (n = 5)	10.7% (n = 5)	133 (n = 4)	14.4% (n = 4)	147 (n = 4)	13.4% (n = 4)	N/A	N/A

The trend between hearings and the percentage of site-specific TCOA is less conclusive. In fact, the expected trend only holds true consistently in Humboldt, Monterey, and Santa Barbara. In Sonoma, observations with no hearings have a lower proportion of site-specific TCOA than those with hearings, but the difference is greater for those with one hearing than those with multiple. In Lake and San Luis Obispo, observations with multiple hearings have lower proportions of site-specific TCOA than those with one, and Santa Cruz observations with one hearing have a lower proportion than those with none. This analysis would benefit from disaggregating the TCOA thematic categories to focus on the types of TCOA most closely associated with possible community opposition (such as odor or noise); increases in those TCOA might indicate decision makers responding to such opposition. But overall, we observe an

increase in TCOA generally as public scrutiny increases but not necessarily an increase in the quality or specificity of project analysis.

In Table 49, we cut the data slightly differently, again summarizing the total TCOA and percent site-specific TCOA imposed on observations by approval body rather than by hearings count. This partially disaggregates the hearings count concept, accounting for the fact that decision makers at different levels of local government hold hearings and approve projects. (For example, in some jurisdictions the Zoning Administrator hears lower-impact projects while the Planning Commission holds authority over higher-impact ones.) Again, we would expect jurisdictions to focus more-intensive review on projects with more significant concerns, and that the higher the approval body, the closer the scrutiny an individual project would receive. Thus, we would expect both more TCOA and higher proportions of site-specific TCOA for observations approved by higher levels of local government.

Table 49: MEAN TCOA COUNT AND % SITE-SPECIFIC TOCA BY APPROVAL BODY AND JURISDICTION

JURISDICTION	MEAN		ADMINISTRATIVE		ZONING ADMINISTRATOR		PLANNING COMMISSION		BOARD OF SUPERVISORS	
	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC
ALL JURISDIC-TIONS	60	19.3%	41 (n = 151)	22.6% (n = 151)	63 (n = 209)	20.3% (n = 209)	68 (n = 225)	17.4% (n = 225)	139 (n = 2)	16.6% (n = 2)
HUMBOLDT	58	20.3%	48 (n = 74)	15.7% (n = 74)	59 (n = 176)	21.4% (n = 176)	61 (n = 153)	21.4% (n = 153)	N/A	N/A
LAKE	88	6.1%	N/A	N/A	80 (n = 5)	6.8% (n = 5)	89 (n = 55)	6.1% (n = 55)	N/A	N/A
MENDOCINO	12	25.0%	6 (n = 2)	33.3% (n = 2)	24 (n = 1)	8.3% (n = 1)	N/A	N/A	N/A	N/A
MONTEREY	17	23.7%	N/A	N/A	N/A	N/A	17 (n = 4)	23.7% (n = 4)	N/A	N/A
NEVADA	26	34.7%	26 (n = 54)	34.7% (n = 54)	N/A	N/A	N/A	N/A	N/A	N/A
SAN LUIS OBISPO	79	16.0%	N/A	N/A	75 (n = 18)	15.9% (n = 18)	84 (n = 13)	16.0% (n = 13)	N/A	N/A
SANTA BARBARA	29	6.4%	29 (n = 9)	6.4% (n = 9)	N/A	N/A	N/A	N/A	N/A	N/A
SANTA CRUZ	64	26.8%	59 (n = 7)	28.4% (n = 7)	76 (n = 3)	23.0% (n = 3)	N/A	N/A	N/A	N/A
SONOMA	121	12.7%	90 (n = 5)	10.7% (n = 5)	141 (n = 6)	13.0% (n = 6)	N/A	N/A	139 (n = 2)	16.6% (n = 2)

As with the hearings count analysis, we see mixed results with approval body as well. In all cases (except the two Board of Supervisors approvals in Sonoma), we see jurisdictions impose more TCOA on observations approved at higher levels. We see the most significant difference between administratively approved observations and those

considered by higher decision-makers that usually conduct hearings. For example, administrative approvals in Sonoma have about 57 percent fewer TCOA than Zoning Administrator approvals.[221] Humboldt and Santa Cruz observations see more modest increases (23 and 29 percent, respectively).

However, the pattern is again inconsistent for the percentage of TCOA that are site-specific. Lake and Sonoma violate the expected trend outright (as does Mendocino, though the sample size is small), while we see minor increases in site-specific TCOA in Humboldt, San Luis Obispo, and Sonoma at higher approval levels. It is notable that Planning Commission approvals in Humboldt are associated with just one additional TCOA on average compared to lower-level Zoning Administrator approvals and no increase in the proportion of site-specific TCOA. This raises questions about why such a large share of observations go before the Planning Commission if there is such a minimal difference in outcomes based on the resulting level of review. The increase in the proportion of site-specific TCOA in San Luis Obispo between Zoning Administrator and Planning Commission approvals is also negligible. This is further evidence that the land use approval types that Pathway 1 jurisdictions require for different cannabis cultivation projects may not be well calibrated to the actual level of scrutiny required.

In Table 50, we summarize the total TCOA and percent of site-specific TCOA imposed on observations by approval pathway, rather than approval body. Across all jurisdictions, we see the highest number of site-specific TCOA for projects approved by Pathway 4 (both a discretionary land use entitlement and an annual local cannabis authorization). Mendocino's Pathway 5 observations that are described by the county as "ministerial" and only require the issuance of annual local cannabis authorizations without a land use entitlement include more site-specific TCOA (33.3%) compared with site-specific TCOA applied under Pathway 4 (8.3%). Even under a "ministerial" analysis, the county is applying site-specific TCOA. Again, as with our analyses for pathways (Table 42) and timeframes of TCOAs (**Error! Reference source not found.**), we do not see a clear relationship between the type of pathway (one-step versus two-step) and the site-specificity of regulatory outcomes.

[221] In Sonoma, the Board of Zoning Adjustments (BZA), a lower body than the Planning Commission, holds original jurisdiction over cannabis-related minor use permits. We classify Sonoma's BZA as functionally equivalent to the Zoning Administrator in other jurisdictions.

Table 50: MEAN % SITE-SPECIFIC TCOA COUNT BY APPROVAL PATHWAY AND JURISDICTION							
JURISDICTION	# OBSERVATIONS W/ COMPLETE TCOA DATA	MEAN % SITE-SPECIFIC OVERALL	PATHWAY 1 MEAN	PATHWAY 2 MEAN	PATHWAY 3 MEAN	PATHWAY 4 MEAN	PATHWAY 5 MEAN
ALL JURISDICTIONS	587 (80.6%)	19.3%	18.2% (n = 507)	18.3% (n = 23)	N/A	34.3% (n = 55)	33.3% (n = 2)
HUMBOLDT	403 (74.3%)	20.3%	20.3% (n = 403)	N/A	N/A	N/A	N/A
LAKE	60 (100%)	6.1%	6.1% (n = 60)	N/A	N/A	N/A	N/A
MENDOCINO	3 (100%)	25.0%	N/A	N/A	N/A	8.3% (n = 1)	33.3% (n = 2)
MONTEREY	4 (100%)	23.7%	N/A	23.7% (n = 4)	N/A	N/A	N/A
NEVADA	54 (100%)	34.7%	N/A	N/A	N/A	34.7% (n = 54)	N/A
SAN LUIS OBISPO	31 (100%)	16.0%	16.0% (n = 31)	N/A	N/A	N/A	N/A
SANTA BARBARA	9 (100%)	6.4%	N/A	6.4% (n = 9)	N/A	N/A	N/A
SANTA CRUZ	10 (83.3%)	26.8%	N/A	266.8% (n = 10)	N/A	N/A	N/A
SONOMA	13 (100%)	12.7%	12.7% (n = 13)	N/A	N/A	N/A	N/A

In Table 51, we summarize total TCOA and percentage site-specific TCOA by appeal status and jurisdiction. Across all jurisdictions, projects that were appealed had more TCOA (94) than projects that were not appealed (61), and projects that were not subject to appeal had the least number of TCOA (48). Santa Barbara had the greatest percentage of difference in total TCOA for projects that were appealed versus not. Appealed Santa Barbara observations had 44 TCOA, whereas projects that were not appealed had 27. Because appeals will only occur because of neighbor or community opposition, these patterns likely do reflect a connection between such opposition and the imposition of TCOAs.

Table 51: MEAN TCOA COUNT AMD % SITE-SPECIFIC TOCA BY APPEAL STATUS AND JURISDICTION										
JURISDICTION	MEAN		APPEALED		NOT APPEALED		NOT SUBJECT TO APPEAL		UNKNOWN	
	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC
ALL JURISDIC-TIONS	60	19.3%	94 (n = 10)	17.0% (n = 10)	61 (n = 499)	20.4% (n = 499)	48 (n = 76)	16.3% (n = 76)	87 (n = 2)	4.6% (n = 2)
HUMBOLDT	58	20.3%	93 (n = 1)	39.8% (n = 1)	60 (n = 328)	21.3% (n = 328)	49 (n = 74)	15.8% (n = 74)	N/A	N/A
LAKE	88	6.1%	87 (n = 2)	6.3% (n = 2)	88 (n = 56)	6.2% (n = 56)	N/A	N/A	87 (n = 2)	4.6% (n = 2)
MENDOCINO	12	25.0%	N/A	N/A	24 (n = 1)	8.3 (n = 1)	6 (n = 2)	33.3% (n = 2)	N/A	N/A
MONTEREY	17	23.7%	N/A	N/A	17 (n = 4)	23.7% (n = 4)	N/A	N/A	N/A	N/A
NEVADA	26	34.7%	N/A	N/A	26 (n = 54)	34.7% (n = 54)	N/A	N/A	N/A	N/A
SAN LUIS OBISPO	79	16.0%	65 (n = 3)	21.1% (n = 3)	80 (n = 28)	15.4% (n = 28)	N/A	N/A	N/A	N/A
SANTA BARBARA	29	6.4%	44 (n = 1)	9.1% (n = 1)	27 (n = 8)	6.1% (n = 8)	N/A	N/A	N/A	N/A
SANTA CRUZ	64	26.8%	N/A	N/A	64 (n = 10)	26.8% (n = 10)	N/A	N/A	N/A	N/A
SONOMA	121	12.7%	146 (n = 3)	15.0% (n = 3)	113 (n = 10)	12.0% (n = 10)	N/A	N/A	N/A	N/A

Again, the relationship between appeals and percentage site-specific TCOA was variable. Across all jurisdictions, appealed projects had a smaller proportion of site-specific TOCA (17 percent) than those that were not appealed (20 percent). However, in Humboldt and Santa Barbara, appealed projects had more site-specific TCOA than those that were not appealed. Overall, a pattern of fewer site-specific TCOA for appealed projects is the opposite of what we would expect if we predicted that neighbor or community opposition to a project that results in an appeal should produce site-specific TCOA for that project. One possibility is that opponents are not interested in making a project better, but instead, seek to stop proposals by seeking the imposition of as many TCOA as possible (whether generic or site-specific) to increase the costs for a project. Our answers here are somewhat speculative, as we have only a small number of appealed observations.

We summarize total TCOA and percentage site-specific TCOA by whether observations are associated with project specific CEQA documents (Table 52). Recall that a jurisdiction may adopt an environmental document specific to a project (like an Environmental Impact Report or Mitigated Negative Declaration) when the project has potential for significant impacts that require disclosure and mitigations. We did not

identify any EIRs among our observations, so MNDs are the only CEQA mechanism pertaining to the project-specific category. We classify all other identified CEQA mechanisms as not project-specific, because they either determine a project to be adequately analyzed by an environmental document previously adopted for the jurisdiction's commercial cannabis ordinances or determine a project exempt from environmental review. In theory, a jurisdiction should adopt a project specific CEQA document in instances where there are stronger concerns about the environmental impacts of a project. The resulting analysis should reveal information that supports the imposition of more TCOA on the project. By the same reasoning, we would also expect observations with project specific CEQA documents to be associated with a higher proportion of site-specific TCOA.

Table 52: MEAN TCOA COUNT AND % SITE-SPECIFIC TCOA BY PROJECT-SPECIFIC CEQA DOCUMENT AND JURISDICTION

JURISDICTION	MEAN		PROJECT-SPECIFIC CEQA DOCUMENT		NO PROJECT-SPECIFIC CEQA DOCUMENT		% DIFFERENCE PROJECT-SPECIFIC VERSUS NO PROJECT-SPECIFIC CEQA DOCUMENT	
	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC
ALL JURISDICTIONS	60	19.3%	92 (n = 65)	11.4% (n = 65)	55 (n = 522)	20.8% (n = 522)	+67.3%	-45.2%
HUMBOLDT	58	20.3%	72 (n = 6)	23.3% (n = 6)	58 (n = 397)	20.3% (n = 397)	+24.1%	+14.8%
LAKE	88	6.1%	92 (n = 35)	6.5% (n = 35)	82 (n = 25)	5.5% (n = 25)	+4.5%	+18.2%
MENDOCINO	12	25.0%	N/A	N/A	12 (n = 3)	25.0% (n = 3)	N/A	N/A
MONTEREY	17	23.7%	N/A	N/A	17 (n = 4)	23.7% (n = 4)	N/A	N/A
NEVADA	26	34.7%	N/A	N/A	26 (n = 54)	34.7% (n = 54)	N/A	N/A
SAN LUIS OBISPO	79	16.0%	89 (n = 21)	15.5% (n = 21)	57 (n = 10)	17.0% (n = 10)	+12.7%	-8.8%
SANTA BARBARA	29	6.4%	N/A	N/A	29 (n = 9)	6.4% (n = 9)	N/A	N/A
SANTA CRUZ	64	26.8%	N/A	N/A	64 (n = 10)	26.8% (n = 10)	N/A	N/A
SONOMA	121	12.7%	150 (n = 3)	15.2% (n = 3)	112 (n = 10)	11.9% (n = 10)	+24.0%	+27.7%

We do see the anticipated relationship for the total TCOA, with jurisdictions imposing more TCOA on observations for which they adopted a project specific CEQA document. The average increase ranges from around five percent in Lake to 24 percent in Sonoma. However, we find the opposite relationship for the proportion of site-specific TCOA, driven by the relatively small percentage of site-specific TCOA (15.5%) among San Luis Obispo's MND observations. This raises questions about the extent to which project specific CEQA documentation is providing useful information for local regulation. This pattern is also not consistent with a hypothesis that more intensive project specific CEQA analysis is driven by neighborhood or community opposition to a project. Again, we should expect more site-specific TCOA if that were the case. These findings are particularly surprising given that the total number of TCOA does increase with project specific CEQA analysis. It is the case that three out of four jurisdictions that applied both project-specific CEQA mechanisms and other less-intensive ones imposed a higher percentage of site-specific TCOA. However, the differences in rates between the categories is fairly small. Overall, the trend is fairly striking that site-specific TCOA do not correlate with project specific CEQA review.

In sum, our analyses provide only modest evidence of a relationship among the TCOA imposed on an observation, the process through which they are imposed, and regulatory outcomes. Jurisdictions vary in the number of TCOA they apply to commercial cannabis cultivation projects, as well as in the extent to which these TCOA are site-specific. There is only a very weak positive (but inconsistent) relationship between TCOA indicators and approval timeframes. Furthermore, regulatory mechanisms that we would expect to result in both more TCOA generally and a higher proportion of site-specific TCOA—namely higher levels of local government review, hearings, appeals, and the manner in which jurisdictions apply CEQA to an observation—instead suggest only fuzzy trends. We can cautiously say overall and in the aggregate, that more TCOA are associated with higher levels of scrutiny, but there is no clear pattern for site-specific TCOA. Local regulatory processes that apply more-intensive review to cannabis cultivation projects seem to result in more rules but not necessarily more focused analysis.

3. Comparing Generic and Site-Specific TCOA to Site Conditions

In this section, our analyses compare TCOA imposed on our observations to measurable site conditions. Following Dillis et al. (2021), we conducted Geographic Information Systems (GIS) -based analyses to calculate slope and hydrography characteristics for the parcels where our observations are located. (We describe our GIS-based analyses in more detail on page 106. The literature regularly cites steep slopes and proximity to watercourses as environmentally problematic characteristics of legacy cannabis cultivation sites (Carah et al., 2015; Butsic, V. and Brenner, J. 2016;

Bauer et al., 2015). We hypothesize that if jurisdictions focus project review (and in turn the application of TCOA) on observations with the most environmentally sensitive conditions, we should see both more TCOA and a higher percentage of site-specific TCOA imposed on cultivation sites associated with steeper slopes and more watercourses to mitigate potential impacts.

We begin our discussion examining the relationship between TCOA and slope. We operationalize slope with two different categorical variables: mean slope and maximum slope. In both cases, we use 10% slope as the break between the lower and upper classes.[222] We summarize total TCOA and percentage site-specific TCOA by the slope condition variables in Table 53. We do not find a strong relationship between the existence of steep slopes on a parcel and the mean number of TCOA overall. The relationship is also weak for site-specific TCOA, with only small increases in the proportions for projects on parcels with steeper slopes.

Table 53: MEAN TCOA COUNT AMD % SITE-SPECIFIC TOCA BY SLOPE CONDITIONS AND JURISDICTION

JURISDICTION	MEAN		MEAN SLOPE <10%		MEAN SLOPE >= 10%		MAX SLOPE <10%		MAX SLOPE >= 10%	
	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC
ALL JURISDIC-TIONS	60	19.3%	60 (n = 511)	19.4% (n = 511)	61 (n = 60)	22.5% (n = 60)	58 (n = 293)	19.1% (n = 293)	61 (n =278)	20.4% (n =278)
HUMBOLDT	58	20.3%	57 (n = 332)	19.8% (n = 332)	61 (n = 56)	23.2% (n = 56)	55 (n = 150)	18.2% (n = 150)	59 (n = 238)	21.7% (n = 238)
LAKE	88	6.1%	88 (n = 59)	6.1% (n = 59)	123 (n = 1)	4.9% (n = 1)	88 (n = 40)	5.9% (n = 40)	90 (n = 20)	6.6% (n = 20)
MENDOCINO	12	25.0%	12 (n = 3)	25% (n = 3)	N/A	N/A	6 (n = 2)	33.3% (n = 2)	24 (n = 1)	8.3% (n = 1)
MONTEREY	17	23.7%	17 (n = 4)	23.7% (n = 4)	N/A	N/A	18 (n = 3)	26.4% (n = 3)	13 (n = 1)	15.4% (n = 1)
NEVADA	26	34.7%	26 (n = 53)	35.3% (n = 53)	17 (n= 1)	5.9% (n= 1)	26 (n = 47)	35.5% (n = 47)	24 (n = 7)	30.0% (n = 7)
SAN LUIS OBISPO	79	16.0%	80 (n = 30)	15.9% (n = 30)	41 (n = 1)	19.5% (n = 1)	82 (n = 25)	16.5% (n = 25)	67 (n = 6)	13.7% (n = 6)
SANTA BARBARA	29	6.4%	30 (n = 8)	6.3% (n = 8)	N/A	N/A	29.5 (n = 8)	6.3% (n = 8)	N/A	N/A
SANTA CRUZ	64	26.8%	64 (n = 9)	27.5% (n = 9)	65 (n = 1)	20.0% (n = 1)	64 (n = 9)	27.5% (n = 9)	65 (n = 1)	20.0% (n = 1)
SONOMA	121	12.7%	121 (n = 13)	12.7% (n = 13)	N/A	N/A	119 (n = 9)	13.4% (n = 9)	126 (n = 4)	11.0% (n = 4)

[222] The ten percent break between the upper and lower slope classes is a function of the distribution of the data itself. We intended to use 15 percent as the break, which corresponds to the slope at which Humboldt County disallows new cannabis cultivation and requires a special permit for pre-existing cultivation. However, upon conducting our GIS-based analyses, we found that only one of our over 700 observations were located on a parcel with a mean slope greater than 15 percent. This is a limitation of using the entire parcel geometry as the geographic unit for calculating the mean slope, especially where slopes vary across large parcels on which the actual cannabis cultivation site occupies but a small part. This limitation is in part why we include maximum parcel slope as a comparison indicator in our slope-based analyses since we saw greater variability in values for that variable.

Because these relationships were so weak, we chose to examine whether the TCOA that might be most relevant to environmental risk—namely, those in the environment, wildlife, and natural resources category and those in the water-related conditions category—are more common for projects on parcels with steep slopes. Since these are the categories most relevant to the harms from cannabis cultivation on steep slopes, we might expect more of these TCOA for observations associated with steeper slopes, and we might observe a relationship that is not visible when we look at all TCOA in the aggregate. We report these results in Table 54. Again, however, we do not find a strong relationship, with only small increases in the number of environment- and water-related TCOA for projects that have a maximum slope greater than or equal to 10%, and with no increase for projects with a mean slope greater than or equal to 10%. Assessing the percentage of site-specific environment- and water-related TCOA, we do find more of a relationship, with projects on steeper slopes on average having more such site-specific TCOA.

Table 54: MEAN TCOA COUNT AND % SITE-SPECIFIC TOCA BY SLOPE CONDITIONS AND JURISDICTION (ENVIRONMENT- AND WATER-RELATED TCOA ONLY)

JURISDICTION	MEAN ENVIRONMENT AND WATER TCOA		MEAN SLOPE <10%		MEAN SLOPE >= 10%		MAX SLOPE <10%		MAX SLOPE >= 10%	
	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC
ALL JURISDIC-TIONS	20	22.3%	20 (n = 511)	21.6% (n = 511)	20 (n = 60)	28.0% (n = 60)	19 (n = 293)	19.3% (n = 293)	21 (n =278)	25.4% (n =278)
HUMBOLDT	19	27.2%	19 (n = 332)	26.8% (n = 332)	20 (n = 56)	29.1% (n = 56)	18 (n = 150)	25.3% (n = 150)	19 (n = 238)	28.3% (n = 238)
LAKE	36	2.0%	36 (n = 59)	2.0% (n = 59)	56 (n = 1)	3.6% (n = 1)	35 (n = 40)	1.4% (n = 40)	37 (n = 20)	3.4% (n = 20)
MENDOCINO	1	25.0%	1 (n = 3)	25.0% (n = 3)	N/A	N/A	0 (n = 2)	0.0% (n = 2)	4 (n = 1)	25.0% (n = 1)
MONTEREY	1	25.0%	1 (n = 4)	25.0% (n = 4)	N/A	N/A	1 (n = 3)	33.3% (n = 3)	2 (n = 1)	0.0% (n = 1)
NEVADA	7	20.3%	6.5 (n = 53)	20.6% (n = 53)	5 (n= 1)	0.0% (n= 1)	6.4 (n = 47)	21.0% (n = 47)	7.1 (n = 7)	15.1% (n = 7)
SAN LUIS OBISPO	27	11.9%	28 (n = 30)	11.8% (n = 30)	14 (n = 1)	14.3% (n = 1)	28 (n = 25)	12.2% (n = 25)	24 (n = 6)	10.7% (n = 6)
SANTA BARBARA	3	10.4%	3 (n = 8)	10.4% (n = 8)	N/A	N/A	3 (n = 8)	10.4% (n = 8)	N/A	N/A
SANTA CRUZ	12	21.8%	11 (n = 9)	21.5% (n = 9)	16 (n = 1)	25.0% (n = 1)	11 (n = 9)	21.5% (n = 9)	16 (n = 1)	25.0% (n = 1)
SONOMA	40	9.6%	40 (n = 13)	9.6% (n = 13)	N/A	N/A	40 (n = 9)	11.2% (n = 9)	40 (n = 4)	6.0% (n = 4)

Next, we turn to considering the correspondence between TCOA and the hydrographic characteristics of our observations. Again, we operationalized hydrography using two categorical variables. The first is a binary categorical variable, indicating whether or not there is a watercourse on the project site. The second classifies observations by whether onsite stream density is greater than or equal to the mean stream density (overall and by jurisdiction, as applicable). We calculate stream density as the sum length of all watercourses onsite (in feet) divided by the total acreage. As noted in the literature and elsewhere in this report, a major concern has been that cannabis projects have negative impacts on water quality or quantity. Observations located on parcels that contain rivers or streams (or that have a high density of such waterbodies) may present more environmental risks. Therefore, we would expect that jurisdictions to apply more TCOA to these observations and a higher proportion of site-specific TCOA given the higher environmental risk they pose.

We summarize total TCOA and percentage site-specific TCOA by our hydrography variables in Table 55. Overall, we do see a slight increase in total TCOA per observation where a project site has a watercourse and where stream density is greater than average. Nevertheless, the direction and strength of the relationship varies by jurisdiction, as does which hydrography variable corresponds to the anticipated outcomes. We find this to be the case for the percentage of site-specific TCOA also, though again the difference is a somewhat small one.

Table 55: MEAN TCOA COUNT AMD % SITE-SPECIFIC TOCA BY HYDROGRAPHY AND JURISDICTION										
JURISDICTION	MEAN		NO WATERCOURSE ON SITE		WATERCOURSE ON SITE		<= MEAN STREAM DENSITY		> MEAN STREAM DENSITY	
	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC
ALL JURISDIC-TIONS	60	19.3%	54 (n = 141)	18.1% (n = 141)	61 (n = 442)	20.2% (n = 442)	58 (n = 344)	19.4% (n = 344)	62 (n =239)	20.1% (n =239)
HUMBOLDT	58	20.3%	55 (n = 99)	17.3% (n = 99)	59 (n = 300)	21.3% (n = 300)	57 (n = 226)	19.6% (n = 226)	58 (n = 173)	21.2% (n = 173)
LAKE	88	6.1%	88 (n = 8)	6.4% (n = 8)	88 (n = 52)	6.1% (n = 52)	89 (n = 43)	6.2% (n = 43)	86 (n = 17)	5.8% (n = 17)
MENDOCINO	12	25.0%	6 (n = 1)	33.3% (n = 1)	15 (n = 2)	20.8% (n = 2)	6 (n = 1)	33.3% (n = 1)	15 (n = 2)	20.8% (n = 2)
MONTEREY	17	23.7%	18 (n = 3)	26.4% (n = 3)	13 (n = 1)	15.4% (n = 1)	17.7 (n = 3)	26.4% (n = 3)	13 (n = 1)	15.4% (n = 1)
NEVADA	26	34.7%	26 (n= 13)	31.2% (n= 13)	26 (n = 41)	35.9% (n = 41)	26 (n = 27)	31.9% (n = 27)	26 (n = 27)	37.6% (n = 27)
SAN LUIS OBISPO	79	16.0%	66 (n = 5)	18.5% (n = 5)	81 (n = 26)	15.5% (n = 26)	77 (n = 17)	16.6% (n = 17)	81 (n = 14)	15.3% (n = 14)
SANTA BARBARA	29	6.4%	26 (n = 5)	8.5% (n = 5)	32 (n = 4)	4.7% (n = 4)	28 (n = 7)	7.4% (n = 7)	33 (n = 2)	3.1% (n = 2)
SANTA CRUZ	64	26.8%	56 (n = 3)	26.5% (n = 3)	68 (n = 7)	26.9% (n = 7)	60 (n = 6)	27.4% (n = 6)	71 (n = 4)	25.7% (n = 4)
SONOMA	121	12.7%	96 (n = 5)	14.0% (n = 5)	136 (n = 8)	11.9% (n = 8)	114 (n = 8)	13.5% (n = 8)	131 (n = 5)	11.4% (n = 5)

As we did with slope, we also assessed whether TCOA display a stronger relationship to hydrography when focusing on environment- and water-related TCOA alone. We summarize total and percentage site-specific environment- and water-related TCOA by hydrography in Table 56. Again, we would expect to see more of these TCOA (and a higher rate of site-specific ones) imposed on cultivation sites more likely to impact hydrological resources. We find this to be the case, and it is a fairly substantial difference as well. The mean number of environment- and water-related TCOA overall is 20, with a difference of 4 more TCOA for the presence of a watercourse onsite and a difference of 2 more TCOA for sites that have a stream density that is greater than the mean. However, the difference may still not be as high as one would expect given the importance of water impacts from cannabis projects. This also raises the question of why projects without rivers or streams onsite still have an average of 17 TCOA in these categories. For site-specific TCOA, we find mixed results. There is no meaningful difference for project sites with or without watercourses, and we observe the exact opposite of the expected pattern for the stream density variable.

Table 56: MEAN TCOA COUNT AND % SITE-SPECIFIC TOCA BY HYDROGRAPHY AND JURISDICTION (ENVIRONMENT- AND WATER-RELATED TCOA ONLY)										
JURISDICTION	MEAN ENVIRONMENT AND WATER TCOA		NO WATERCOURSE ON SITE		WATERCOURSE ON SITE		<= MEAN STREAM DENSITY		> MEAN STREAM DENSITY	
	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC	# TCOA	% SITE-SPECIFIC
ALL JURISDIC-TIONS	20	22.3%	17 (n = 141)	21.9% (n = 141)	21 (n = 442)	22.4% (n = 442)	19 (n = 344)	23.5% (n = 344)	21 (n =239)	20.5% (n =239)
HUMBOLDT	19	27.2%	17 (n = 99)	24.3% (n = 99)	19 (n = 300)	28.0% (n = 300)	18 (n = 226)	27.0% (n = 226)	19 (n = 173)	27.2% (n = 173)
LAKE	36	2.0%	37 (n = 8)	4.3% (n = 8)	36 (n = 52)	1.7% (n = 52)	37 (n = 43)	2.5% (n = 43)	34 (n = 17)	0.8% (n = 17)
MENDOCINO	1	25.0%	0 (n = 1)	0.0% (n = 1)	2 (n = 2)	25.0% (n = 2)	0 (n = 1)	0.0% (n = 1)	2 (n = 2)	25.0% (n = 2)
MONTEREY	1	25.0%	1 (n = 3)	33.3% (n = 3)	2 (n = 1)	0.0% (n = 1)	1 (n = 3)	33.3% (n = 3)	2 (n = 1)	0.0% (n = 1)
NEVADA	7	20.3%	6 (n= 13)	20.9% (n= 13)	7 (n = 41)	20.1% (n = 41)	6 (n = 27)	20.9% (n = 27)	7 (n = 27)	19.7% (n = 27)
SAN LUIS OBISPO	27	11.9%	21 (n = 5)	16.0% (n = 5)	29 (n = 26)	11.1% (n = 26)	26 (n = 17)	12.3% (n = 17)	29 (n = 14)	11.3% (n = 14)
SANTA BARBARA	3	10.4%	4 (n = 5)	12.5% (n = 5)	3 (n = 4)	6.7% (n = 4)	3 (n = 7)	11.9% (n = 7)	3 (n = 2)	0.0% (n = 2)
SANTA CRUZ	12	21.8%	8 (n = 3)	19.5% (n = 3)	14 (n = 7)	22.8% (n = 7)	11 (n = 6)	23.7% (n = 6)	14 (n = 4)	19.1% (n = 4)
SONOMA	40	9.6%	30 (n = 5)	13.4% (n = 5)	46 (n = 8)	7.3% (n = 8)	39 (n = 8)	11.9% (n = 8)	41 (n = 5)	6.0% (n = 5)

I. Analyzing Regulatory Indicators and Outcomes for Pre-Existing Cannabis Cultivators

In this final section of our quantitative analysis results, we turn our attention to the issue of pre-existing commercial cannabis cultivation sites and their operators. An express goal of Proposition 64 and related legislation was to create a regulated cannabis market in California into which cannabis operators predating legalization could transition and from which they could benefit. We now synthesize the numerous regulatory indicators and outcomes we have discussed so far—including approval timeframes, hearings, CEQA, TCOA, and site conditions—to evaluate whether local cannabis regulatory systems are functioning well for pre-existing cultivators. We acknowledge that the term "pre-existing" is applied to a broad range of cannabis operators and has a different meaning in different contexts. In our analysis, we consider a cannabis cultivation site to be pre-existing when an observation is the result of a local

regulatory process that brings into local compliance a cannabis cultivation site existing at the time of application. This definition covers longstanding legacy cultivators in the Emerald Triangle as well as less-well-established operators in other places that emerged before California enacted its comprehensive cannabis regulatory system. While these different classes of pre-existing growers may face somewhat different challenges, this definition is in line with our research's emphasis on understanding and quantifying local regulatory processes.

To begin, we summarize in Table 57 approval timeframes by pre-existing status overall and by jurisdiction. In the aggregate, jurisdictions took longer to review and approve pre-existing cultivation sites than new ones. Pre-existing projects experienced mean approval timeframes (26.6 months) about ten percent longer than the overall mean, while new projects have a mean approval timeframe (16.5 months) that is almost one-third shorter than the overall mean. In fact, pre-existing cultivators saw longer mean approval times in nearly every study jurisdiction. In Humboldt County, where the vast majority of applicants are pre-existing growers, mean approval times for these projects was just about two percent more than the jurisdiction mean. However, pre-existing mean approval times are about ten percent longer than the jurisdiction mean in Nevada and Santa Cruz Counties, consistent with the overall difference. Only Monterey County contradicted this pattern, though this result may not be meaningful given the small sample size.

Table 57: MEAN APPROVAL TIMEFRAMES (IN MONTHS) BY PRE-EXISTING STATUS AND JURISDICTION						
JURISDICTION	**# OBSERVATIONS W/ COMPLETE TIMEFRAME DATA**	**OVERALL MEAN**	**PRE-EXISTING GROW MEAN**	**PRE-EXISTING GROW MEAN AS % OVERALL MEAN**	**NEW GROW MEAN**	**NEW GROW MEAN AS % OVERALL MEAN**
ALL JURISDICTIONS	703	24.3	26.6 (n=541)	+9.3%	16.5 (n=156)	-32.3%
HUMBOLDT	540	28	28.5 (n=471)	+1.9%	24.6 (n=66)	-12.0%
LAKE	38	10.2	11 (n=12)	+7.3%	9.9 (n=26)	-3.5%
MENDOCINO	3	22.9	22.9 (n=3)	0%	NO DATA	N/A
MONTEREY	4	26.5	24.5 (n=1)	-7.4%	27.1 (n=3)	+2.3%
NEVADA	54	7.6	8.3 (n=23)	+9.4%	7.1 (n=31)	-6.9%
SAN LUIS OBISPO	30	16	17.1 (n=18)	+6.7%	14.4 (n=12)	-9.8%
SANTA BARBARA	9	13.2	NO DATA	N/A	13.2 (n=9)	0%
SANTA CRUZ	12	10.1	11.1 (n=4)	+10.3%	9.6 (n=8)	-5.2%
SONOMA	13	715	22.2 (n=9)	-4.9%	20.1 (n=1)	-13.8%

There are several potential reasons why pre-existing projects took longer to approve than new projects. First, there could be a cultural reason. Pre-existing operators were comfortable operating in a semi-legal, unregulated environment, requiring no permitting or oversight. New operators who entered the market after the AUMA's passage in 2016 may have been more willing to enter a regulated market and to comply with permitting and licensing requirements. This may have especially been the case when new applicants had more traditional business experience.

Second, although pre-existing operators may have had a "first mover advantage" in terms of applying in some jurisdictions that provided special accommodations for pre-existing cultivation activities (as in Humboldt and Mendocino), they had to navigate a complex regulatory process for which jurisdictions were still addressing structural issues. These administrative barriers may have real impacts on rural communities by placing pressure on small, legacy cultivators that have been key contributors to rural economies (Bodwitch et al., 2021). Pre-existing cultivators may also have had to overcome obstacles of changing goal posts, new requirements, inexperienced local staff, and consultants, and adapting their sites and operations to frequent changes in both local and state law. In short, pre-existing cultivators were often tasked with "building the plane while it's flying," which led to significant obstacles and delays. As

regulatory programs evolved, planning staff may have become more experienced in reviewing applications and overcoming hurdles and may have been able to process applications faster for newer applicants than the original applicants who applied at the local program's start.

Third, pre-existing sites may have been less ideal from a permitting standpoint, given they were often chosen for being remote, discreet, and difficult to detect by law enforcement. Pre-existing sites were often in environmentally sensitive areas, as highlighted by Humboldt's Retirement, Remediation, and Relocation of Pre-Existing Cultivation Sites Program ("RRR Program") discussed on page 165. New operators may have chosen their properties specifically because it was ideal for permitting and would move through the local review process quickly.

One way to examine whether pre-existing sites are harder to permit is to compare the timeframes for projects in Humboldt's RRR program and projects not in the county's program. Given the points above, we would expect RRR projects to have longer timeframes. Table 58 shows the mean approval timeframe in months for Humboldt observations by RRR status. Of the 542 observations in Humboldt, 46 were RRR observations and 496 were non-RRR observations. RRR projects took about 1.5 months longer to be approved (29.4 months) than non-RRR observations (27.9 months) -- only about half the time difference for new versus pre-existing projects in Humboldt.

Table 58: MEAN APPROVAL TIMEFRAMES (IN MONTHS) FOR HUMBOLDT OBSERVATIONS BY RRR STATUS

	RRR OBSERVATIONS	NON-RRR OBSERVATIONS
TOTAL OBSERVATIONS	46	496
TOTAL OBSERVATIONS WITH COMPLETE TIMEFRAME DATA	46 (100%)	494 (99.6%)
MEAN MONTHS TO APPROVAL	29.4 MONTHS	27.9 MONTHS
MEAN MONTHS TO APPROVAL AS % DIFFERENCE OVERALL MEAN	+5.0%	-0.5%

One argument as to why new applications might be processed faster is because new operators may have selected properties that were environmentally superior, for example, by being located on agricultural land rather than in remote areas zoned as Timber Production Zones (TPZ) which were utilized during the prohibition era due to their remote and discreet nature. We assess this possibility using data from Humboldt County. In Table 59 we compare mean approval timeframes in months by whether a project was located in a Timber Production Zone in Humboldt County. Humboldt permits approved in TPZs were approved 3.1 months slower than permits approved in non-TPZ zones – roughly the same amount of time as the overall delay for pre-existing projects in Humboldt County.

Table 59: MEAN APPROVAL TIMEFRAMES (IN MONTHS) BY TIMBER PRODUCTION ZONE (HUMBOLDT ONLY)	
TOTAL OBSERVATIONS	542
TOTAL OBSERVATIONS WITH COMPLETE TIMEFRAME DATA	540 (99.6%)
MEAN MONTHS TO APPROVAL OVERALL	28
MEAN MONTHS TO APPROVAL FOR TPZ OBSERVATIONS	30.4 (n = 123)
MEAN MONTHS TO APPROVAL FOR NON-TPZ OBSERVATIONS	27.3 (n = 415)
TPZ MEAN APPROVAL TIMEFRAME AS % DIFFERENCE OVERALL MEAN	+8.7%
TPZ MEAN APPROVAL TIMEFRAME AS % DIFFERENCE NON-TPZ MEAN TIMEFRAME	+11.5%

Thus, differences in site characteristics appears to be a significant part, but not all, of the cause of differences in timeframes between pre-existing and new projects. The remainder of the difference may be the product of the way in which jurisdictions set up and administer their local commercial cannabis regulatory systems. In Table 60, we summarize observations by pre-existing status and by the most review-intensive approval type required for local compliance (We discuss our Approval Pathways Framework at length above). In jurisdictions where comparisons are possible, the data tend to suggest that pre-existing cannabis cultivation projects required more-intensive approval types at a higher rate than new grows. This is most evident in Humboldt. Pre-existing grows outnumber new grows at a ratio of 7:1, but this ratio varies by review type. The jurisdiction approved over 70 percent of new grows with zoning clearances; at the same time, pre-existing grows required special permits and conditional use permits at a disproportionate rate, over twice their share in the total population for both approval types. Since Humboldt's regulations require special permits when project sites are associated with certain environmental conditions (like diversionary water sources, steep slopes, and proximity of public lands, all of which are in turn associated with legacy cannabis cultivation), this is not necessarily surprising, but it represents an additional regulatory hurdle for pre-existing growers. This pattern also holds in San Luis Obispo, where pre-existing grows are associated with a disproportionate number of conditional use permits, as well as in Santa Cruz, where only pre-existing grows underwent the special permit (rather than administrative) process.

Table 60: HIGHEST APPROVAL TYPE BY PRE-EXISTING STATUS AND JURISDICTION							
JURISDICTION	**TOTAL OBSERVATIONS**	**STATUS**	**ZC**	**LUP**	**SP**	**CUP**	**OTHER**
ALL JURISDICTIONS	728	PRE-EXISTING (n = 546)	171 (31.3%)	17 (3.1%)	198 (36.3%)	157 (28.8%)	3 (0.5%)
		NEW (n = 176)	52 (29.5%)	41 (23.3%)	32 (18.2%)	49 (27.8%)	3 (1.7%)
PRE-EXISTING-TO- NEW RATIO		*3:1:1*	*3.3:1*	*0.4:1*	*6.2:1*	*3.2:1*	*1:1*
HUMBOLDT	542	PRE-EXISTING (n = 472)	164 (34.7%)	N/A	168 (35.6%)	139 (29.4%)	1 (0.2%)
		NEW (n = 67)	47 (70.1%)	N/A	10 (14.9%)	10 (14.9%)	N/A
PRE-EXISTING-TO- NEW RATIO		*7:1*	*3.5:1*	*N/A*	*16.8:1*	*13.9:1*	*N/A*
LAKE	60	PRE-EXISTING (n = 15)	N/A	N/A	7 (46.7%)	8 (53.3%)	N/A
		NEW (n = 45)	N/A	N/A	13 (28.9%)	32 (71.1%)	N/A
PRE-EXISTING-TO- NEW RATIO		*0.33:1*	*N/A*	*N/A*	*0.5:1*	*0.25:1*	*N/A*
MENDOCINO	3	PRE-EXISTING (n = 3)	N/A	N/A	1 (33.3%)	N/A	2 (66.7%)
		NEW (n = 0)	N/A	N/A	N/A	N/A	N/A
PRE-EXISTING-TO- NEW RATIO		*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
MONTEREY	4	PRE-EXISTING (n = 1)	N/A	N/A	N/A	1 (100.0%)	N/A
		NEW (n = 3)	N/A	N/A	N/A	3 (100.0%)	N/A
PRE-EXISTING-TO- NEW RATIO		*0.3:1*	*N/A*	*N/A*	*N/A*	*0.3:1*	*N/A*
NEVADA	54	PRE-EXISTING (n = 23)	7 (30.4%)	16 (69.6%)	N/A	N/A	N/A
		NEW (n = 31)	4 (12.9%)	27 (87.1%)	N/A	N/A	N/A
PRE-EXISTING-TO- NEW RATIO		*0.7:1*	*1.75:1*	*0.6:1*	*N/A*	*N/A*	*N/A*
SAN LUIS OBISPO	31	PRE-EXISTING (n = 19)	N/A	N/A	10 (52.6%)	9 (47.4%)	N/A
		NEW (n =12)	N/A	N/A	8 (66.7%)	4 (33.3%)	N/A
PRE-EXISTING-TO- NEW RATIO		*1.6:1*	*N/A*	*N/A*	*1.3:1*	*2.3:1*	*N/A*
SANTA BARBARA	9	PRE-EXISTING (n = 0)	N/A	N/A	N/A	N/A	N/A
		NEW (n = 9)	N/A	8 (88.9%)	N/A	N/A	1 (11.1%)
PRE-EXISTING-TO- NEW RATIO		*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

Table 60: HIGHEST APPROVAL TYPE BY PRE-EXISTING STATUS AND JURISDICTION							
JURISDICTION	**TOTAL OBSERVATIONS**	**STATUS**	**ZC**	**LUP**	**SP**	**CUP**	**OTHER**
SANTA CRUZ	12	PRE-EXISTING (n = 4)	N/A	1 (25.0%)	3 (75.0%)	N/A	N/A
		NEW (n = 8)	N/A	6 (75.0%)	N/A	N/A	2 (25%)
PRE-EXISTING-TO- NEW RATIO		*0.5:1*	*N/A*	*0.2:1*	*N/A*	*N/A*	*N/A*
SONOMA	13	PRE-EXISTING (n = 9)	N/A	N/A	9 (100.0%)	N/A	N/A
		NEW (n = 1)	N/A	N/A	1 (100.0%)	N/A	N/A
PRE-EXISTING-TO- NEW RATIO		*9:1*	*N/A*	*N/A*	*9:1*	*N/A*	*N/A*

One way to assess the relative contribution of site characteristics and regulatory process to the different timeframes for pre-existing versus new projects is to compare two different regulatory systems in the same county. In Table 61 we take a closer look at the approval timeframes for projects in Humboldt County approved under the county's first medical cannabis ordinance, the Commercial Medical Cannabis Land Use Ordinance ("Ordinance 1.0") adopted in 2016, and the second Commercial Cannabis Land Use Ordinance ("Ordinance 2.0") adopted in 2018. Humboldt is unique in that it passed two discreet ordinances. The first ordinance was designed to transition pre-existing operators into the legal market ("Ordinance 1.0") simultaneously with the roll out of state temporary licenses allowing operators to enter the state licensing framework and continue operating seamlessly. The second ordinance was designed to open up applications for new operators and existing operators who missed the initial rush of applications. It may be informative to compare the outcomes of these two ordinances as one was passed in 2016 when there was an influx of pre-existing operators applying at the same time, and the other was passed in 2018 after many pre-existing operators had already applied and there were less applications needing attention by the county. Comparing these two ordinances and the timeframes for approval can help elucidate that timeframes may have been longer for pre-existing operators due to the sheer volume of applications that Humboldt had to process in a short amount of time. In Table 62, we compare the mean approval timeframes for Humboldt observations by ordinance and pre-existing status.

We found projects approved under Ordinance 1.0. had a mean months to approval of 30 months, whereas projects approved under Ordinance 2.0 had a mean months to approval of 16.9 months. Projects approved under Ordinance 2.0 were approved 13.1 months faster than projects approved under Ordinance 1.0. Additionally,

there were far more projects approved under Ordinance 1.0 (454) compared with Ordinance 2.0 (85) during our study years.

There are a range of possible reasons as to why projects approved under Ordinance 2.0 were approved over 13 months faster than projects under Ordinance 1.0. Some explanations relate to the nature of the regulatory process. For instance, the process for submitting and approving applications may have become more streamlined under Ordinance 2.0. By the time the Planning Department began reviewing and approving Ordinance 2.0 permits after 2018 they may have had more experience with cannabis regulatory systems. Whereas projects that applied under Ordinance 1.0 were more likely to experience regulatory "whiplash" as they contended with changes to state law, forcing them in some cases to modify their application, premises diagram, and operations, etc., and thus slowing down their local application after each modification. Early applicants were navigating both local and state licensing applications, in addition to applying for registrations with the SWRCB and CDFW, resulting in a large amount of paperwork, deadlines and correspondence with government agencies. If there was a deficiency in any of their local or state applications, the cumulative impact of responding to several agencies at once could have delayed their local application process. In addition, it is possible that the Planning Department had challenges handling the higher number of applications in a short period of time under Ordinance 1.0, versus a lighter load of applications under Ordinance 2.0.

Other explanations focus on the nature of the site characteristics: more challenging, pre-existing projects might have applied under Ordinance 1.0, and generally sites that applied under Ordinance 2.0 were better suited and had fewer environmental issues to contend with.

The size of a cultivation site could also impact the processing and approval time. Under Ordinance 1.0, applicants were more likely to be small, pre-existing cultivators, whereas under Ordinance 2.0, larger scale cultivators were able to apply. Ordinance 2.0 allowed farms up to 8-acres (Humboldt Cty. Code § 314-55.4.5.4.1), whereas Ordinance 1.0 capped farm size at 4-acres (Humboldt Cty. Code § 313-55.4.8.10; and § 314-55.4.8.10). Large cultivation permits were assigned to a hired consultant to prepare the staff report, whereas small cultivation permits were processed by Planning Department staff (*Humboldt County Civil Grand Jury Report: Permitted (Eventually) – a Review of the Cannabis Permitting Process in Humboldt County*, 2022, p. 6). It is possible that third-party consultants worked faster than Planning Department staff or had less of a project load and therefore had more time to devote to individual applications.

Table 61: MEAN APPROVAL TIMEFRAMES (IN MONTHS) FOR HUMBOLDT OBSERVATIONS BY ORDINANCE			
	ORDINANCE 1.0 (CMMLUO)	ORDINANCE 2.0 (CCLUO)	SPECIAL CASES*
TOTAL OBSERVATIONS	454	85	3
TOTAL OBSERVATIONS WITH COMPLETE TIMEFRAME DATA	452 (99.6%)	85 (100%)	3 (100%)
MEAN MONTHS TO APPROVAL	30 MONTHS	16.9 MONTHS	29.8 MONTHS
MEAN MONTHS TO APPROVAL AS % DIFFERENCE OVERALL MEAN	+7.4%	-39.4%	+6.3%
*Note that we separately code Humboldt observations that were directly impacted by the 1.0 to 2.0 transition or which included multiple components subject to different ordinances. We summarize this small subset of observations in the 'SPECIAL CASES' column here.			

To help disentangle regulatory system and site characteristics in we compare the mean approval timeframes for Humboldt observations by ordinance and pre-existing status (Table 62). Under Ordinance 1.0, Humboldt approved 397 pre-existing applications, and 55 new applications. Under Ordinance 2.0, Humboldt approved 73 pre-existing applications and 11 new applications. Under both ordinances, pre-existing applications took longer to approve than new applications. The consistent nature of outcomes across two different regulatory systems in the same county supports the conclusion that the driver of differences is not simply the regulatory system itself, but that pre-existing sites often were more challenging to permit, due to potential factors including location, water source, slopes, roads, and the overall challenge of bringing an existing site, with all its imperfections into a heavily regulated system. Another factor is many of the operators who were pre-existing had originally been operating under non-profit cooperatives, collectives, or corporations, or as sole-proprietors and had to navigate corporate changes during their land use application process. Additionally, many may have had pre-existing issues related to CDTFA Seller's Permits and Franchise Tax Board taxes that had to be resolved. A final issue that may have arisen during the application process relates to land ownership, leases, partnership agreements, illegally subdivided parcels, and overall property ownership and management issues that had to be resolved in order for local applications to proceed with processing.

These challenges must be compared with new projects that started on a fresh slate, with newly formed corporate entities, clearly defined leases, no negative tax history, and clear and defined partnership agreements. The combination of a new business, an ideal location, the ability to scope and plan a project, and the predictability

of navigating an already defined application process may have resulted in faster processing times for new applications.

Table 62: MEAN APPROVAL TIMEFRAMES (IN MONTHS) FOR HUMBOLDT OBSERVATIONS BY ORDINANCE AND PRE-EXISTING STATUS

	ORDINANCE 1.0 (CMMLUO)		ORDINANCE 2.0 (CCLUO)	
	PRE-EXISTING	NEW	PRE-EXISTING	NEW
TOTAL OBSERVATIONS	397	55	73	11
TOTAL OBSERVATIONS WITH COMPLETE TIMEFRAME DATA	396 (99.7%)	54 (98.2%)	73 (100%)	11 (100%)
MEAN MONTHS TO APPROVAL	30.4 MONTHS	27.4 MONTHS	17.9 MONTHS	11.8 MONTHS
MEAN MONTHS TO APPROVAL AS % DIFFERENCE OVERALL MEAN	+8.7%	-2.0%	-36.1%	-57.8%
ORDINANCE MEAN TIMEFRAME	30 MONTHS		16.9 MONTHS	
MEAN MONTHS TO APPROVAL AS % DIFFERENCE ORDINANCE MEAN	+1.2%	-8.7%	+5.4%	-30.3%

In Table 63 we consider whether pre-existing projects were more likely to have hearings than new projects. Overall, it appears that new projects were slightly less likely to have a hearing (and more likely to have none) than pre-existing projects. This is again driven primarily by Humboldt, where the ratio of pre-existing grows with one hearing to new grows with one hearing is more than 25-to-1 (more than triple pre-existing grows' overall share of the population). Again, in Santa Cruz, only pre-existing grows underwent the local special permit process during our study period, which requires a hearing in every case.

Table 63: OBSERVATIONS BY PRE-EXISTING STATUS, HEARING STATUS, AND JURISDICTION					
JURISDICTION	**TOTAL OBSERVATIONS**	**STATUS**	**NO HEARING**	**ONE HEARING**	**MULTIPLE HEARINGS**
ALL JURISDICTIONS	728	PRE-EXISTING (n = 546)	192 (35.2%)	317 (58.1%)	34 (6.2%)
		NEW (n = 176)	95 (54.0%)	66 (37.5%)	13 (7.4%)
PRE-EXISTING-TO- NEW RATIO		*3.1:1*	*2:1*	*4.8:1*	*2.6:1*
HUMBOLDT	542	PRE-EXISTING (n = 472)	161 (34.1%)	281 (59.5%)	30 (6.4%)
		NEW (n = 67)	47 (70.1%)	16 (23.9%)	4 (6.0%)
PRE-EXISTING-TO- NEW RATIO		*7:1*	*3.4:1*	*17.6:1*	*7.5:1*
LAKE	60	PRE-EXISTING (n = 15)	N/A	12 (80.0%)	N/A
		NEW (n = 45)	N/A	37 (82.2%)	6 (13.3%)
PRE-EXISTING-TO- NEW RATIO		*0.3:1*	*N/A*	*0.3:1*	*N/A*
MENDOCINO	3	PRE-EXISTING (n = 3)	3 (100.0%)	N/A	N/A
		NEW (n = 0)	N/A	N/A	N/A
PRE-EXISTING-TO- NEW RATIO		*N/A*	N/A	N/A	N/A
MONTEREY	4	PRE-EXISTING (n = 1)	N/A	N/A	1 (100.0%)
		NEW (n = 3)	N/A	3 (100.0%)	N/A
PRE-EXISTING-TO- NEW RATIO		*1:3*	*N/A*	*N/A*	*N/A*
NEVADA	54	PRE-EXISTING (n = 23)	23 (100.0%)	N/A	N/A
		NEW (n = 31)	31 (100.0%)	N/A	N/A
PRE-EXISTING-TO- NEW RATIO		*0.7:1*	*0.7:1*	*N/A*	*N/A*
SAN LUIS OBISPO	31	PRE-EXISTING (n = 19)	N/A	18 (94.7%)	1 (5.3%)
		NEW (n =12)	N/A	10 (83.3%)	2 (16.7%)
PRE-EXISTING-TO- NEW RATIO		*0.9:1*	*N/A*	*1.8:1*	*0.5:1*
SANTA BARBARA	9	PRE-EXISTING (n = 0)	N/A	N/A	N/A
		NEW (n = 9)	8 (88.9%)	N/A	1 (11.1%)
PRE-EXISTING-TO- NEW RATIO		*0.9:1*	*N/A*	*N/A*	*N/A*
SANTA CRUZ	12	PRE-EXISTING (n = 4)	1 (25.0%)	3 (75.0%)	N/A
		NEW (n = 8)	8 (100.0%)	N/A	N/A
PRE-EXISTING-TO- NEW RATIO		*0.5:1*	*0.1:1*	*N/A*	*N/A*
SONOMA	13	PRE-EXISTING (n = 9)	4 (44.4%)	3 (33.3%)	2 (22.2%)
		NEW (n = 1)	1 (100.0%)	N/A	N/A
PRE-EXISTING-TO- NEW RATIO		*9:1*	*4:1*	*N/A*	*N/A*

In Table 64, we quantify the number of observations by pre-existing status and by the most intensive CEQA determination applied to them. We also summarize approval timeframes by the same variables. (As before, mechanisms decrease in review intensity from left to right in the table.) We see limited evidence that jurisdictions were more likely to apply more rigorous CEQA mechanisms to pre-existing projects. Though we identified only a relatively small number of Mitigated Negative Declarations (MND) associated with our observations during our study period (just less than ten percent of all observations), both Lake and San Luis Obispo were more likely to adopt these project-specific environmental documents for pre-existing growers, while Humboldt was less likely to adopt these project-specific environmental documents for pre-existing growers.

More importantly, however, we observe that—regardless of the CEQA determination applied—jurisdictions generally took longer to approve pre-existing projects. Humboldt took more than 3.27 months and more than 6.5 months to approve pre-existing projects with addenda and categorical exemptions, respectively, compared to new projects. Pre-existing projects with MNDs in San Luis Obispo saw longer mean approval timeframes than new projects with MNDs. Nevada used statutory tiering for all of its observations, but pre-existing grows still saw longer approval timeframes on average. The same is true for categorical exemptions in Santa Cruz and Sonoma. Only Lake processed pre-existing MND projects more quickly than new MND projects, but pre-existing categorical exemption projects experienced longer approval timeframes than their new counterparts. This indicates that the longer timeframes for pre-existing projects are not the result of systematic differences in jurisdiction's CEQA practices as applied to pre-existing versus new projects.

Table 64: OBSERVATIONS BY MOST INTENSIVE CEQA DETERMINATION, PRE-EXISTING STATUS, AND JURISDICTION (WITH MEAN APPROVAL TIMEFRAMES IN MONTHS)

JURISDICTION	TOTAL OBSERV-ATIONS	STATUS	MND	ADDEN-DUM	STATU-TORY TIERING	CONSIST-ENCY	CATE-GORICAL EXEMP-TION	MINISTER-IAL EXEMP-TION
ALL JURISDIC-TIONS	728	PRE-EXISTING (n = 546)	28 (5.1%)	359 (65.8%)	25 (4.6%)	12 (2.2%)	113 (20.7%)	8 (1.5%)
		TIMEFRAME	*18.6*	*30.4*	*9.2*	*23.8*	*20.6*	*21.4*
		NEW (n = 176)	34 (19.3%)	60 (34.1%)	33 (18.8%)	1 (0.6%)	41 (23.3%)	3 (1.7%)
		TIMEFRAME	*14.4*	*24.3*	*7.5*	*18.6*	*12.3*	*22.7*
PRE-EXISTING-TO- NEW RATIO		*3.1:1*	*0.84:1*	*6:1*	*0.8:1*	*12:1*	*2.8:1*	*2.7:1*
HUMBOLDT	542	PRE-EXISTING (n = 472)	4 (0.8%)	359 (76.1%)	N/A	12 (2.5%)	88 (18.6%)	8 (1.7%)
		TIMEFRAME	*32.5*	*30.4*	*N/A*	*23.8*	*21.7*	*21.4*
		NEW (n = 67)	2 (3.0%)	53 (79.1%)	N/A	1 (1.5%)	4 (6.0%)	3 (4.5%)
		TIMEFRAME	*32.9*	*25.8*	*N/A*	*18.6*	*15.7*	*22.7*
PRE-EXISTING-TO- NEW RATIO		*7:1*	*2:1*	*6.8:1*	*N/A*	*12:1*	*22:1*	*2.7:1*
LAKE	60	PRE-EXISTING (n = 15)	10 (66.7%)	N/A	N/A	N/A	5 (33.3%)	N/A
		TIMEFRAME	*11.1*	*N/A*	*N/A*	*N/A*	*10.9*	*N/A*
		NEW (n = 45)	25 (55.6%)	N/A	N/A	N/A	20 (44.4%)	N/A
		TIMEFRAME	*11.9*	*N/A*	*N/A*	*N/A*	*7.9*	*N/A*
PRE-EXISTING-TO- NEW RATIO		*0.3:1*	*0.4:1*	*N/A*	*N/A*	*N/A*	*0.25:1*	*N/A*
MENDOCINO	3	PRE-EXISTING (n = 3)	N/A	N/A	2 (66.7%)		1 (33.3%)	N/A
		TIMEFRAME	*N/A*	*N/A*	*19.4*	*N/A*	*29.9*	*N/A*
		NEW (n = 0)	N/A	N/A	N/A	N/A	N/A	N/A
		TIMEFRAME	N/A	N/A	N/A	N/A	N/A	N/A
PRE-EXISTING-TO- NEW RATIO		*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
MONTEREY	4	PRE-EXISTING (n = 1)	N/A	N/A	N/A	N/A	1 (100.0%)	N/A
		TIMEFRAME	*N/A*	*N/A*	*N/A*	*N/A*	*749*	*N/A*
		NEW (n = 3)	N/A	N/A	N/A	N/A	3 (100.0%)	N/A

Table 64: OBSERVATIONS BY MOST INTENSIVE CEQA DETERMINATION, PRE-EXISTING STATUS, AND JURISDICTION (WITH MEAN APPROVAL TIMEFRAMES IN MONTHS)

JURISDICTION	TOTAL OBSERV-ATIONS	STATUS	MND	ADDEN-DUM	STATU-TORY TIERING	CONSIST-ENCY	CATE-GORICAL EXEMP-TION	MINISTER-IAL EXEMP-TION
		TIMEFRAME	*N/A*	*N/A*	*N/A*	*N/A*	*27.1*	*N/A*
PRE-EXISTING-TO- NEW RATIO		*0.3:1*	*N/A*	*N/A*	*N/A*	*N/A*	*0.3:1*	*N/A*
NEVADA	54	PRE-EXISTING (n = 23)	N/A	N/A	23 (100.0%)	N/A	N/A	N/A
		TIMEFRAME	*N/A*	*N/A*	*8.3*	*N/A*	*N/A*	*N/A*
		NEW (n = 31)	N/A	N/A	31 (100.0%)	N/A	N/A	N/A
		TIMEFRAME	*N/A*	*N/A*	*7.1*	*N/A*	*N/A*	*N/A*
PRE-EXISTING-TO- NEW RATIO		0.7:1	N/A	N/A	0.7:1	N/A	N/A	N/A
SAN LUIS OBISPO	31	PRE-EXISTING (n = 19)	14 (73.7%)	N/A	N/A	N/A	5 (26.3%)	N/A
		TIMEFRAME	*19*	*N/A*	*N/A*	*N/A*	*10.5*	*N/A*
		NEW (n =12)	7 (58.3%)	N/A	N/A	N/A	5 (41.7%)	N/A
		TIMEFRAME	*13.8*	*N/A*	*N/A*	*N/A*	*15.4*	*N/A*
PRE-EXISTING-TO- NEW RATIO		*1.6:1*	*2:1*	*N/A*	*N/A*	*N/A*	*1:1*	*N/A*
SANTA BARBARA	9	PRE-EXISTING (n = 0)	N/A	N/A	N/A	N/A	N/A	N/A
		TIMEFRAME	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
		NEW (n = 9)	N/A	7 (77.8%)	2 (22.2%)	N/A	N/A	N/A
		TIMEFRAME	*N/A*	*12.7*	*14.8*	*N/A*	*N/A*	*N/A*
PRE-EXISTING-TO- NEW RATIO		*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
SANTA CRUZ	12	PRE-EXISTING (n = 4)	N/A	N/A	N/A	N/A	4 (100.0%)	N/A
		TIMEFRAME	*N/A*	*N/A*	*N/A*	*N/A*	*11.1*	*N/A*
		NEW (n = 8)	N/A	N/A	N/A	N/A	8 (100.0%)	N/A
		TIMEFRAME	*N/A*	*N/A*	*N/A*	*N/A*	*9.6*	*N/A*
PRE-EXISTING-TO- NEW RATIO		*0.5:1*	*N/A*	*N/A*	*N/A*	*N/A*	*0.5:1*	*N/A*
SONOMA	13	PRE-EXISTING (n = 9)	N/A	N/A	N/A	N/A	9 (100.0%)	N/A
		TIMEFRAME	*N/A*	*N/A*	*N/A*	*N/A*	*22.2*	*N/A*

Table 64: OBSERVATIONS BY MOST INTENSIVE CEQA DETERMINATION, PRE-EXISTING STATUS, AND JURISDICTION (WITH MEAN APPROVAL TIMEFRAMES IN MONTHS)								
JURISDICTION	**TOTAL OBSERV-ATIONS**	**STATUS**	**MND**	**ADDEN-DUM**	**STATU-TORY TIERING**	**CONSIST-ENCY**	**CATE-GORICAL EXEMP-TION**	**MINISTER-IAL EXEMP-TION**
		NEW (n = 1)	N/A	N/A	N/A	N/A	1 (100.0%)	N/A
		TIMEFRAME	*N/A*	*N/A*	*N/A*	*N/A*	*20.1*	*N/A*
PRE-EXISTING-TO- NEW RATIO		*9:1*	*N/A*	*N/A*	*N/A*	*N/A*	*9:1*	*N/A*

Taken together, these analyses suggest that, even in a jurisdiction like Humboldt—where stakeholders openly recognize the legacy cannabis industry's economic importance (Froehlich 2019) and where local law provides special accommodations for pre-existing growers—satisfying the local review process is often an uphill battle for pre-existing cultivators. Remaining in local compliance after approval may also be a challenge, and we see this reflected to some degree in the TCOA applied to our observations. In Table 65, we summarize total TCOA and percentage site-specific TCOA by pre-existing status overall and by jurisdiction. Overall, pre-existing observations are associated with slightly more TCOA than new observations on average. This trend holds in most jurisdictions, but the difference is generally tenuous, ranging from just one additional TCOA (Lake) to 15 (Santa Cruz). The positive difference in the proportion of site-specific TCOA between pre-existing and new growers, however, is more striking. The pattern holds in every jurisdiction except Santa Cruz, indicating that jurisdictions may be crafting TCOA for pre-existing cultivation sites with greater scrutiny. This could make ongoing local compliance more complex (and potentially expensive) for pre-existing growers, discouraging transitions to the regulated cannabis market.

Table 65: TOTAL TCOA AND % SITE-SPECIFIC TCOA BY PRE-EXISTING STATUS AND JURISDICTION						
JURISDICTION	**OVERALL MEAN TCOA COUNT OVERALL**	**PRE-EXISTING MEAN TCOA COUNT**	**NEW MEAN TCOA COUNT**	**MEAN % SITE-SPECIFIC TCOA**	**PRE-EXISTING MEAN % SITE-SPECIFIC TCOA**	**NEW MEAN % SITE-SPECIFIC TCOA**
ALL JURISDICTIONS	60	60 (n = 434)	58 (n = 148)	19.3%	21.4% (n = 434)	15.2% (n = 148)
HUMBOLDT	58	59 (n = 360)	51 (n = 41)	20.3%	21.2% (n = 360)	13.2% (n = 41)
LAKE	88	89 (n = 15)	88 (n = 45)	6.1%	7.1% (n = 15)	5.8% (n = 45)
MENDOCINO	12	12 (n = 3)	N/A	25.0%	25.0% (n = 3)	N/A
MONTEREY	17	19 (n = 1)	16 (n = 3)	23.7%	26.3% (n = 1)	22.8% (n = 3)
NEVADA	26	26 (n = 23)	26 (n = 31)	34.7%	39.4% (n = 23)	31.3% (n = 31)
SAN LUIS OBISPO	79	81 (n = 19)	76 (n = 12)	16.0%	16.3% (n = 19)	15.4% (n = 12)
SANTA BARBARA	29	N/A	29 (n = 9)	6.4%	N/A	6.4% (n = 9)
SANTA CRUZ	64	73 (n = 4)	58 (n = 6)	26.8%	26.1% (n = 4)	27.2% (n = 6)
SONOMA	121	112 (n = 9)	116 (n = 1)	12.7%	12.5% (n = 9)	7.0% (n = 1)

In previous analyses, we found limited evidence suggesting that cultivation sites with greater environmental risks may be associated with more TCOA and a higher percentage of site-specific TCOA, especially in relevant TCOA thematic categories. We would expect pre-existing cultivation sites to exist on more environmentally sensitive sites with steeper slopes and more hydrological resources. If pre-existing projects are more likely to be sited in such areas, this could explain at least in part why pre-existing projects had a higher proportion of site-specific TCOA (as the site-specific TCOA are needed to respond to higher risks) and why pre-existing projects took longer to approve (as they present more difficult cases for the local governments to consider).

In Table 66, we summarize both mean and maximum slope by pre-existing status. We do find that pre-existing projects overall are located on sites with larger slopes. Monterey and San Luis Obispo violate the pattern, and the difference is quite minimal in Nevada. But we observe the expected patterns elsewhere, with the greatest differences in Humboldt.

Table 66: SITE CHARACTERISTICS BY PRE-EXISTING STATUS (SLOPE CONDITIONS)						
JURISDICTION	**OVERALL MEAN SLOPE**	**PRE-EXISTING GROW MEAN SLOPE**	**NEW GROW MEAN SLOPE**	**OVERALL MEAN MAX SLOPE**	**PRE-EXISTING GROW MEAN MAX SLOPE**	**NEW GROW MEAN MAX SLOPE**
ALL JURISDICTIONS	5.9%	6.8% (n = 422)	3.4% (n = 144)	9.6%	10.8% (n = 422)	6.2% (n = 144)
HUMBOLDT	6.9%	7.3% (n = 348)	3.0% (n = 38)	10.9%	11.6% (n = 348)	5.0% (n = 38)
LAKE	4.3%	4.8% (n = 15)	4.2% (n = 45)	8.3%	9.3% (n = 15)	8.0% (n = 45)
MENDOCINO	5.0%	5.0% (n = 3)	N/A	7.6%	7.6% (n = 3)	N/A
MONTEREY	0.7%	0.2% (n = 1)	0.8% (n = 3)	3.0%	0.2% (n = 1)	4.0% (n = 3)
NEVADA	3.9%	3.9% (n = 23)	3.9% (n = 31)	6.3%	6.5% (n = 23)	6.1% (n = 31)
SAN LUIS OBISPO	3.2%	3.0% (n = 19)	3.6% (n = 12)	6.5%	5.9% (n = 19)	7.6% (n = 12)
SANTA BARBARA	1.9%	N/A	1.9% (n = 8)	3.9%	N/A	3.9% (n = 8)
SANTA CRUZ	3.1%	5.8% (n = 4)	1.3% (n = 6)	5.6%	10.6% (n = 4)	2.3% (n = 6)
SONOMA	3.9%	4.9% (n = 9)	3.1% (n = 1)	6.4%	7.9% (n = 9)	7.3% (n = 1)

In Table 67, we summarize the percentage of observations with a watercourse onsite and watercourse density by pre-existing status. We find that pre-existing projects are more likely to have a waterway on the parcel overall, though this is inconsistent across jurisdictions. Counterintuitively, new projects tend to have higher watercourse densities, though Humboldt strongly exhibits the expected trend at the jurisdiction-scale. These mixed findings are in line with other analyses we conducted for TCOA relative to our hydrography variables.

Table 67: SITE-CHARACTERISTICS BY PRE-EXISTING STATUS (HYDROGRAPHY)						
JURISDICTION	**OVERALL % OBSERVATIONS WITH STREAM ONSITE**	**PRE-EXISTING GROW % OBSERVATIONS WITH STREAM ONSITE**	**NEW GROW % OBSERVATIONS WITH STREAM ONSITE**	**OVERALL MEAN STREAM DENSITY**	**PRE-EXISTING GROW MEAN STREAM DENSITY**	**NEW GROW MEAN MAX STREAM DENSITY**
ALL JURISDICTIONS	75.8% (n = 442/583)	78.7% (n = 339/431)	68.0% (n = 100/147)	38.8	35.9 (n = 431)	47.7 (n = 147)
HUMBOLDT	75.2% (n = 300/399)	79.3% (n = 283/357)	42.5% (n = 17/40)	34.8	35.8 (n = 357)	27.3 (n = 40)
LAKE	86.7% (n = 52/60)	80.0% (n = 12/15)	88.9% (n = 40/45)	68.0	30.1 (n = 15)	80.7 (n = 45)
MENDOCINO	66.7% (n = 2/3)	66.7% (n = 2/3)	N/A	21.0	21.0 (n = 3)	N/A
MONTEREY	25.0% (n = 1/4)	0.0% (n = 0/1)	33.3% (n = 1/3)	15.2	0.0 (n = 1)	20.2 (n = 3)
NEVADA	75.9% (n = 41/54)	73.9% (n = 17/23)	77.4% (n = 24/31)	41.8	38.2 (n = 23)	44.4 (n = 31)
SAN LUIS OBISPO	83.9% (n = 26/31)	89.5% (n = 17/19)	75.0% (n = 9/12)	42.5	50.6 (n = 19)	29.6 (n = 12)
SANTA BARBARA	55.6% (n = 5/9)	N/A	55.6% (n = 5/9)	27.5	N/A	27.5 (n = 9)
SANTA CRUZ	70.0% (n = 7/10)	100.0% (n = 4/4)	50.0% (n = 3/6)	38.2	45.2 (n = 4)	33.6 (n = 6)
SONOMA	61.5% (n = 8/13)	44.4% (n = 4/9)	100.0% (n = 1/1)	26.3	19.3 (n = 9)	45.5 (n = 1)

To conclude this section, we present a series of ordinary least squares (OLS) regressions to consider whether and to what extent site conditions and other variables influence regulatory outcomes. We incorporate the same six explanatory variables in each model. These include the four slope and hydrography site conditions variables discussed previously relative to TCOA: mean slope, maximum slope, the presence of a watercourse, and watercourse density. We also include the binary pre-existing status variable. Together, these explanatory variables allow us to assess whether the higher number of TCOA and longer approval timeframes for pre-existing cultivators is a result of pre-existing cultivators being located disproportionately on more environmentally sensitive sites. We also include an additional binary explanatory variable indicating whether or not an observation is located in Humboldt. This variable could be meaningful, because Humboldt produced so many observations, which has tended to obscure trends throughout our analyses. Additionally, Humboldt's processes and outcomes had substantial differences from other jurisdictions. We configured each

model with a different dependent variable: total TCOA, percentage site-specific TCOA, total environment- and water-related TCOA, percentage site-specific environment- and water-related TCOA, and approval timeframe.

Table 68 summarizes regression results when the dependent variable is the total number of TCOA applied to an observation. The results indicate that even accounting for environmental site characteristics, pre-existing cultivators had more TCOA than new cultivators, even for projects with similar environmental site risks. The results also show that the relationship between the total number of TCOA and site conditions is not consistent. While there are more TCOA for projects with a higher maximum slope, there are fewer TCOA for projects with a higher mean slope. We do not find strong relationships between hydrography and total TCOA in this regression.

Table 68: OLS REGRESSION RESULTS FOR DEPENDENT VARIABLE TOTAL TCOA

R-SQUARED		0.052	F-STATISTIC		5.067
ADJUSTED R-SQUARED		0.041	PROBABILITY (F-STATISTIC)		4.46e-5*
INDEPENDENT VARIABLE	**VARIABLE TYPE**	**COEFFICIENT**	**STANDARD ERROR**	**T-STATISTIC**	**PROBABILITY (T-STATISTIC)**
CONSTANT	CONTINUOUS	54.3078	2.422	22.421	0.000*
MEAN SLOPE	CONTINUOUS	-1.221	0.77	-1.586	0.113
MAXIMUM SLOPE	CONTINUOUS	1.1548	0.46	2.511	0.012*
STREAM ONSITE	BINARY	2.0294	2.525	0.804	0.422
STREAM DENSITY	CONTINUOUS	0.0257	0.021	1.246	0.213
EXISTING GROW	BINARY	4.6707	2.445	1.910	0.057
HUMBOLDT OBSERVATION	BINARY	-7.3986	2.311	-3.201	0.001*

*Statistically significant at 95% confidence interval

Table 69 summarizes regression results when the dependent variable is the percentage of site-specific TCOA. Again, we find that there is a strong positive relationship between pre-existing status and the proportion of site-specific TCOA, even accounting for environmental site conditions. Pre-existing projects receive more site-specific TCOA even when they have comparable environmental site conditions to new

projects. Likewise, we do not find a consistent relationship between environmental site conditions and the proportion of site-specific TCOA.

Table 69: OLS REGRESSION RESULTS FOR DEPENDANT VARIABLE % SITE-SPECIFIC TCOA

R-SQUARED	0.078	F-STATISTIC	7.935
ADJUSTED R-SQUARED	0.069	PROBABILITY (F-STATISTIC)	3.17e-8*

INDEPENDENT VARIABLE	VARIABLE TYPE	COEFFICIENT	STANDARD ERROR	T-STATISTIC	PROBABILITY (T-STATISTIC)
CONSTANT	CONTINUOUS	14.9089	1.213	12.296	0.000*
MEAN SLOPE	CONTINUOUS	0.7981	0.385	2.071	0.041*
MAXIMUM SLOPE	CONTINUOUS	-0.4781	0.230	-2.077	0.038*
STREAM ONSITE	BINARY	2.1481	1.264	1.7	0.09
STREAM DENSITY	CONTINUOUS	-0.0084	0.010	-0.809	0.419
EXISTING GROW	BINARY	6.5517	1.224	5.353	0.000*
HUMBOLDT OBSERVATION	BINARY	-2.0611	1.157	-1.781	0.075

*Statistically significant at 95% confidence interval

Our first two models considered all TCOA, while our next two models consider only environment- and water-related TCOA. Table 70 summarizes regression results when the dependent variable is the total number of environment- and water-related TCOA applied to an observation. Here we find a somewhat weaker relationship between total such TCOA and whether a project is a pre-existing cultivation site, though it is still positive. We also continue to find inconsistent relationships between environmental site characteristics and the total number of TCOA.

Table 70: OLS REGRESSION RESULTS FOR DEPENDENT VARIABLE TOTAL ENVIRONMENT- AND WATER-RELATED TCOA					
R-SQUARED		0.063	F-STATISTIC		6.291
ADJUSTED R-SQUARED		0.053	PROBABILITY (F-STATISTIC)		2.06e-6*
INDEPENDENT VARIABLE	**VARIABLE TYPE**	**COEFFICIENT**	**STANDARD ERROR**	**T-STATISTIC**	**PROBABILITY (T-STATISTIC)**
CONSTANT	CONTINUOUS	17.3828	1.116	15.57	0.000*
MEAN SLOPE	CONTINUOUS	-0.7213	0.355	-2.033	0.043*
MAXIMUM SLOPE	CONTINUOUS	0.6218	0.212	2.933	0.003*
STREAM ONSITE	BINARY	1.3586	1.164	1.168	0.253
STREAM DENSITY	CONTINUOUS	0.0166	0.010	1.744	0.082
EXISTING GROW	BINARY	1.491	1.127	1.323	0.186
HUMBOLDT OBSERVATION	BINARY	-3.2146	1.065	-3.017	0.003*
*Statistically significant at 95% confidence interval					

Table 71 summarizes regression results when the dependent variable is the percentage of site-specific environment- and water-related TCOA. We find similar results as before. Pre-existing sites have more site-specific environmental and water TCOA even accounting for site characteristics, and there is an inconsistent relationship between environmental site characteristics and the proportion of site-specific environment- and water-related TCOA.

Table 71: OLS REGRESSION RESULTS FOR DEPENDENT VARIABLE % SITE-SPECIFIC ENVIRONMENT/WATER TCOA					
R-SQUARED		0.239	F-STATISTIC		29.22
ADJUSTED R-SQUARED		0.231	PROBABILITY (F-STATISTIC)		1.76e-30*
INDEPENDENT VARIABLE	**VARIABLE TYPE**	**COEFFICIENT**	**STANDARD ERROR**	**T-STATISTIC**	**PROBABILITY (T-STATISTIC)**
CONSTANT	CONTINUOUS	9.3457	1.647	5.673	0.000*
MEAN SLOPE	CONTINUOUS	-0.213	0.524	-0.407	0.684
MAXIMUM SLOPE	CONTINUOUS	0.1255	0.313	0.401	0.688
STREAM ONSITE	BINARY	1.0057	1.717	0.586	0.558
STREAM DENSITY	CONTINUOUS	-0.0263	0.014	-1.874	0.061
EXISTING GROW	BINARY	6.5945	1.663	3.966	0.000*
HUMBOLDT OBSERVATION	BINARY	12.2371	1.572	7.784	0.000*
*Statistically significant at 95% confidence interval					

In Table 72 we assess the relationship between pre-existing status and approval timeframes, again including environmental site characteristics as well as whether an observation is in Humboldt. We find a strong positive relationship between whether a project is a pre-existing cannabis site and timeframes, even accounting for environmental site characteristics. We might also expect that projects with environmentally sensitive sites might face longer timeframes for approval, as this requires additional project analysis and development of appropriate TCOA. However, we do not find any strong relationships between environmental site characteristics and timeframes, and one of the four relationships is actually negative.

Table 72: OLS REGRESSION RESULTS FOR DEPENDENT VARIABLE APPROVAL TIMEFRAME					
R-SQUARED		0.391	F-STATISTIC		57.2
ADJUSTED R-SQUARED		0.384	PROBABILITY (F-STATISTIC)		1.47e-54*
INDEPENDENT VARIABLE	**VARIABLE TYPE**	**COEFFICIENT**	**STANDARD ERROR**	**T-STATISTIC**	**PROBABILITY (T-STATISTIC)**
CONSTANT	CONTINUOUS	244.7973	34.844	7.026	0.000*
MEAN SLOPE	CONTINUOUS	9.8634	10.913	0.904	0.367
MAXIMUM SLOPE	CONTINUOUS	3.1048	6.584	0.472	0.637
STREAM ONSITE	BINARY	-12.8588	38.162	-0.337	0.736
STREAM DENSITY	CONTINUOUS	-0.0144	0.39	-0.037	0.971
EXISTING GROW	BINARY	174.8189	35.045	4.988	0.000*
HUMBOLDT OBSERVATION	BINARY	341.6223	32.855	10.398	0.000*
*Statistically significant at 95% confidence interval					

Overall, we find a substantial difference in timeframes between pre-existing and new projects, with pre-existing projects consistently taking longer for approval than new projects. While an important part of that difference can be explained by different site conditions for pre-existing projects, not all of the difference appears to be the result of site conditions. Other factors – capacity or willingness of pre-existing site operators to apply for local permits, or how the local regulatory process applies to pre-existing versus new projects – appear to be relevant as well. In terms of regulatory differences, it appears that pre-existing projects face more hearings, and this is correlated with longer timeframes, but differences in CEQA processes do not appear to be correlated with longer timeframes.

VIII. Discussion

In this final part, we begin by providing a summary of our findings concerning our hypotheses and an overview of our key conclusions from our data and analysis. We then provide more detailed summaries of the important findings for both the planning code summaries and project-level data.

A. Findings for hypotheses

1. ***Local land use regulatory processes vary significantly.*** We identified five different pathways across counties for regulating cannabis, each reflecting substantially different approaches to regulation.
2. ***Local land use regulation is highly variable, making it difficult for researchers, the public, or the State to readily evaluate how local regulations support larger State policy goals.*** As discussed in Section V. Materials and Methods, we experienced significant difficulties accessing information about regulatory systems in some counties. The challenges we faced in obtaining information were exacerbated by the variability in regulatory systems across counties.
3. ***Local regulation has changed substantially over short periods of time and will continue to change going forward.*** As summarized above, we saw changes in regulations in multiple counties both before, during, and after our study period.
4. ***Local regulation may produce new combinations of regulatory systems that are different from previous paradigms of regulation.*** The dual business/cannabis license and land-use regulatory process adopted by several of our study counties fundamentally differs from the approach taken for most land-use regulation in California.
5. ***Local regulation will often rely on discretionary review processes to enable local governments to veto projects that are locally unpopular.*** We found that essentially all permitting of projects in our study period was through discretionary processes. We hypothesized that local governments would impose discretionary review to respond to neighborhood political opposition to individual projects. While we observed considerable discretionary review among our study jurisdictions, we also found that several counties actually intended to develop ministerial review systems for at least some projects but either did not apply those systems in practice or found them stymied by complications with the interaction of CEQA review with state licensing.

6. ***Local regulation will often treat new cultivators differently from legacy cultivators.*** Several counties (in particular Humboldt) provided different pathways for legacy cultivators. In practice, legacy cultivators generally faced longer time frames and more stringent review than new cultivators.
7. ***Local regulation will significantly constrain where cannabis can be legally cultivated***. Zoning regulations constrain cannabis locations substantially to specific zones, and a number of counties had caps on the number of approved/licensed projects that excluded many applicants.
8. ***Local regulation will impose significant regulatory burdens on cannabis cultivation, many of which will overlap with other regulatory requirements and many of which may not correlate with the environmental and other risks posed by projects.*** We found substantial numbers of TCOAs imposed on projects in almost all of our counties. The largest single category of TCOAs imposed on projects involved compliance and permitting, which generally requires compliance with both local and state regulatory requirements (not just those directly imposed through the local regulatory system). Over twenty percent of TCOAs imposed by local governments involved requiring compliance with other regulatory standards, generally from the state. We found that the absolute number of TCOAs and the percentage of site-specific TCOAs had only partial relationships with the sensitivity of sites for cannabis projects, whether we looked at all TCOAs or just environmental and water related TCOAs.
9. ***Local regulators will face difficult choices about whether and how to structure CEQA review for their cannabis regulatory systems, and the complexity of the CEQA process will cause significant delays and challenges for local governments seeking to approve projects.*** We found that a number of counties had difficulty processing permits or constructing a functional licensing system because of problems with CEQA compliance. We also found that CEQA review correlated with longer timeframes for project approval, even in counties with functional systems.
10. ***Applicants will face extended time frames for the approval of projects***. We found timelines for approval that often stretched longer than a year.

B. Summary of key conclusions

First and foremost, our findings indicate that the current regulatory system is not working well to transition pre-existing entities into the regulated market, one of the stated goals of Proposition 64. Obtaining a local permit and state license can take years and may disincentivize illicit market operators from entering the legal market, particularly as pre-existing entities often face longer approval timeframes than new projects.

We identify several key drivers of delays for pre-existing and new projects at the county level: inadequate CEQA review or processes; the state's current position that all license reviews by DCC are discretionary, requiring additional CEQA review; lack of local ministerial review processes; the constant change of local regulatory ordinances; lack of stability in county planning staff; imposition of novel regulatory systems (such as dual-track permitting) by local governments; the challenges of permitting pre-existing, non-conforming entities into the land-use regulatory system; and caps on permitting at the county level. We elaborate on each of these drivers below.

Many counties did not undertake a PEIR or site-specific review when issuing discretionary permits. This resulted in some counties' processes taking a very long time, and some counties produced no observations during our study years (Yolo, Trinity). Mendocino produced a handful of observations. This is despite the fact that Trinity and Mendocino were at the heart of the pre-existing outdoor cannabis cultivation industry in California. There are several hundred cultivators in Trinity and Mendocino still working through the process.[223]

One cause for county-level CEQA challenges was the state's position that the DCC's review of individual cultivation licenses is discretionary, requiring site-specific CEQA review for all projects, even ones that are ministerial at the local level. This requirement imposes more complicated CEQA review processes and burdens than are present for many other development projects.

In practice, we observed almost no ministerial review, even though counties made efforts to create ministerial processes (as in Humboldt and Mendocino). Part of

[223] As of June 22, 2022, 30 out of Trinity County's estimated 399 permittees had completed their site-specific CEQA inspections, and the remaining 369 were still working through the CEQA process. (*See Trinity County Cannabis Equity Assessment. (n.d.). County of Trinity. Retrieved June 25, 2023, from https://www.trinitycounty.org/sites/default/files/Planning/CANNABIS/Retail_Ord/FINAL%20Trinity%20County%20Cannabis%20Equity%20Assessment%20%28002%29.pdf.* As of Dec 7, 2022, Trinity County had issued 100 Cannabis Cultivation Licenses with CEQA review complete, enabling the license holder to obtain a state annual license. (*See* Cozine, J. (2022, December 7). 100 cannabis cultivation license milestone reached. *The Trinity Journal*. Retrieved June 25, 2023, from http://www.trinityjournal.com/news/local/article_230439c4-75c1-11ed-b14c-97539322544d.html). As of June 2023, the Mendocino County Cannabis Department had 715 active commercial cannabis cultivation applications and had issued 125 active commercial cannabis cultivation licenses. Of the 125 active commercial cannabis cultivation licenses, only 6 have an annual state license issued by the DCC (*See Mendocino County Cannabis Department Deliverables. (2023, June 26). County of Mendocino. https://drive.google.com/file/d/1soulMw7Inp3aUTQEumiMdrqz38PriaRf/view)*.

the reason for the lack of any ministerial process was the state CEQA requirements. But another driver was that local governments failed to establish operational ministerial processes, whether because of local political conflict or inadequate staffing or capacity in the planning process. As a result, even counties that supposedly have ministerial processes on the books do not have them in practice. For example, in Humboldt, the county describes ZCCs as ministerial, however, they function as a discretionary project; Mendocino describes their permits as ministerial, but they involve a CEQA component (Appendix G).

Local government regulatory systems are constantly evolving. Local government cannabis regulatory systems have changed frequently over the past few years, and it appears likely that they will continue to be dynamic. (For instance, an upcoming vote on a ballot initiative to substantially change Humboldt's cannabis ordinance.) The flux in local and state regulations produces constantly moving goalposts of what constitutes "final approval," which in turn creates uncertainty for applicants that significantly increases costs. Operators may believe they have completed the process only to find out later that they need to start again (as occurred in Trinity and Yolo, and in Mendocino with cultivators being required to submit Appendix G after obtaining a local permit). After moving through an initial application process, applicants may have exhausted their savings and may not have the financial capacity to reapply or complete the new additional steps in the process. This dynamic is particularly burdensome on small pre-existing cultivators who often have limited financial resources, and generally to all cannabis businesses that are not eligible for traditional bank loans.

Counties that had continuity in Planning Department leadership had better outcomes in terms of the number of permits issued. A lack of consistent leadership could cause delays in permits being issued. For instance, Mendocino and Trinity have hired multiple cannabis leaders since their programs were created,[224] and have struggled with creating functioning programs. In contrast, Humboldt has established a program that processed hundreds of permits in our time period under the leadership of John Ford, Humboldt County's Planning and Building Director, who has worked for the Department since 2016.

Many counties crafted regulatory programs for cannabis that were substantially different from standard forms of land use regulation and CEQA review. Many counties have adopted hybrid entitlement and business license approval processes—in doing so,

[224] Mendocino has hired four Cannabis Program Managers since the position was opened in 2017 (Maxwell, 2022). Since 2017, Trinity has hired an interim Planning Director, a Director of Building and Planning, and two different Cannabis Division directors. *See* http://www.trinityjournal.com/news/local/article_5a373912-a1c4-11ed-9630-cb2d24d88b8f.html; http://www.trinityjournal.com/news/local/article_3cb1e188-aa28-11ec-aa23-6feb8f6217a8.html; http://www.trinityjournal.com/news/local/article_838c1960-402a-11e7-86e6-bf94fbe3fedd.html; and http://www.trinityjournal.com/news/local/article_ca3e3034-a82c-11e9-9a45-1f1e5af26fc0.html.

they are responding to cannabis operating as a highly-regulated ongoing business activity. However, this also requires counties to establish more complicated regulatory systems that may impose greater costs on planning departments and applicants, adding to delays. Allowing businesses to operate while they complete the application process is unusual from a land use perspective and can cause problems when operators are unable to complete the application process at later stages and secure final approval, such as in Monterey.

In the cannabis context, many cannabis cultivation sites have existed for decades, with established infrastructure, including buildings, greenhouses, graded areas, ponds, and water storage. Therefore, even when local governments maintain discretion over development, already developed and operating cultivation sites move through an entitlement process that is typically applied pre-development, making them atypical compared to most development projects. This can add time and complexity to the review process, imposing burdens on both applicants and planning departments.

We also found that in several counties, the permit or acreage caps have already been reached or are close to being met—excluding any new applicants from entering the legal system. If these caps are excluding significant numbers of legacy applicants from entering the regulatory system, stringent caps on permits or acreage may frustrate one of the goals of state legalization, which is to transition the illegal market into the regulated market.

The extended time frames for approving cannabis projects correlate with additional local land-use and environmental review processes: more hearings and more thorough CEQA review. However, we only found limited evidence that these additional processes (and the associated timeframes) were correlated with a higher proportion of site-specific TCOAs. Since TCOAs are the means by which the regulatory process can be tailored to a specific project to reduce the potential risks or harms of the project, there is only limited evidence that the extended time frames are producing significant regulatory benefits.

In addition, we found only limited evidence that TCOAs themselves correlate with the environmental risks of individual projects. We found little relationship between total TCOAs or the proportion of site-specific TCOAs and steep slopes for projects; we found a stronger relationship between TCOAs and hydrography.

If the regulatory process is designed and operating to address environmental risks, we should find that projects in riskier environmental contexts (steeper slopes, more streams, or waterways) should generally have longer timeframes, more TCOAs, and a higher percentage of site-specific TCOAs. However, as noted above, we found

relatively limited evidence of this relationship. Environmental risk appears to be a factor driving the regulatory program, but only to a limited extent.

Another possible driver of regulatory outcomes can be neighbor or community opposition to projects. In the housing context, there is significant evidence that when neighbors or community members oppose a project, projects are more likely to fail, face longer timeframes, and face more onerous approval conditions. However, despite media coverage of examples of significant neighborhood opposition to cannabis projects, we do not see much evidence of this dynamic. Appeal rates for outdoor and mixed-light cannabis projects are much lower than for housing projects. For the very few projects that are appealed, we do see higher levels of TCOAs, which may reflect community opposition.

A third way of understanding local regulation of cannabis cultivation may be that planning departments that are under-resourced and overwhelmed by project applications may end up cutting and pasting TCOAs across projects without close consideration of whether those TCOAs are relevant for additional projects. In addition, because individual planners may develop their own TCOAs for particular projects, we may even see apparently arbitrary variation across projects within a county in terms of which TCOAs apply to which projects. This dynamic would explain the relatively weak relationship between TCOAs and timeframes, TCOAs and land-use approval processes, and TCOAs and environmental risk. Likewise, local regulatory processes that require a wide range of projects to go through more complex review processes, including hearings, without consideration of the risks of individual projects may produce longer timeframes without much-added benefit in terms of TCOAs or regulation tailored to the risks of individual projects.

Of the three possible ways in which local regulation may operate – response to environmental risks, response to neighborhood opposition, or response to a lack of resources – our data most strongly supports the third option: Local planning departments may not have the capacity to implement regulatory programs in ways that match the costs of regulation to the benefits of regulation. We do see some evidence that regulation is responding to environmental risk and the least evidence that regulation (at least at the project level) is responding to neighborhood opposition.

Given the small population and limited budgets of many of the rural counties we study in this project, particularly in the Emerald Triangle, it makes sense that local planning departments would have struggled to create a complicated, novel regulatory program that was subject to dynamic changes in governing state law, and that was applied to pre-existing projects that presented difficult compliance questions.

Finally, our research highlights a fundamental tension between two stated goals of Proposition 64: on the one hand, to take cannabis production out of the illegal market (Section 3, subdivision a); and on the other to require licensed cannabis businesses to follow strict environmental standards (Section 3, subdivision h). A complicated, onerous, or unclear local regulatory process or state CEQA process can result in fewer operators transitioning, or remaining in, the licensed market. Implementing Proposition 64 requires a thoughtful balance between these two goals, which in turn may require substantial changes in law and policy at the state and local level.

C. Important findings from planning code summaries

In this section, we provide more detailed overviews of the important findings from our planning code summaries; these findings are the basis for the key conclusions we identify above.

Local land use regulatory processes vary significantly and have substantially evolved over short periods of time.

An important conclusion from our review of the planning codes in our study jurisdictions is that there is significant variability from county to county in the regulatory system and that regulatory programs have changed over time. This variability and uncertainty in the regulatory system likely has made it more difficult for counties and for the cannabis industry to launch a functional regulatory program, and particularly may have had a negative impact on small, legacy growers.

In assessing variability across counties, counties varied significantly in how they defined key terms and how they structured their regulatory system. With respect to definitions, counties frequently defined key terms such as indoor, mixed-light, or outdoor cultivation in ways that were not just different from other counties but also differed from how the state defined these terms. This variability in the use of key terms can create real challenges for the operation of a regulatory system. From the perspective of cannabis permit applicants, having counties define important terms in ways that are different from the state can make it more difficult for applicants to understand how the regulatory system operates, increase the burden of paperwork, and may make substantive compliance with standards more difficult. These burdens likely are the hardest on small and legacy growers, who may not have the resources or capacity to navigate this complicated system. From the perspective of the state and the broader public, having wide variability across counties in terms of definitions makes it more difficult to understand how county systems are operating and how they match up with the state system.

We also identified five separate models or typologies for how counties designed their regulatory systems. These typologies represented choices counties made in terms of whether to have ministerial or discretionary review for permits, and whether to use a land-use regulatory system, a business license system, or both to manage their regulatory programs. Ultimately, counties generally adopted a discretionary review process, and the vast majority of approved projects proceeded through that discretionary review process. However, we still saw significant differences across counties in terms of whether discretionary review was located in the land-use or business license process or both, and whether counties used one or the other or both land-use and business licenses to review projects.

Ironically, we generally found little difference in time frames for project approval across these pathways. Whether the county used a business/cannabis license, land-use entitlement, or dual approach appeared to make little difference to how long it took applicants to navigate the process. The only exceptions involved a pathway with very limited numbers (two business license-only approvals in Santa Cruz) and Nevada, which processed applications significantly faster than any other county through a dual land-use and cannabis license system. It appears that other factors – likely staffing, resources, the stability of the regulatory program, and its implementation – matter more for determining timeframes than the structure of the program.

Likely more important in determining the success of regulatory programs is whether those programs were stable, or whether they were substantially revised during our time frame. It is no accident that Mendocino approved a total of three projects during our study period according to our definition of an observation,[225] and the one potential observation we identified in Trinity was not approved in our time frame, despite being centers for legacy cannabis cultivation in the Emerald Triangle. Mendocino passed an ordinance that intended to open the application process to new cultivators and establish a discretionary application process, however, it was repealed and never went into effect as it was challenged in a referendum.[226] Mendocino had to change its CEQA process when it was determined the county's ministerial permitting program was incompatible with state regulatory requirements.[227] Mendocino started issuing ministerial cultivation permits in early 2018 and believed CEQA had been satisfied with

[225] Mendocino approved three permits between 2018 to 2020 according to our definition of an observation: one requiring discretionary review (due to an indoor component) and an annual local permit (Pathway 4); and two constituted entirely of annual local permits (Pathway 5) with corresponding CEQA Appendix G checklists.
[226] Board of Supervisors meeting 9/14/2021 9:00 AM: https://mendocino.legistar.com/MeetingDetail.aspx?ID=831301&GUID=33C7699C-9406-4563-B83E-71AADA06F62E&Options=info|&Search=.
[227] *See* Mendocino County Local Jurisdiction Assistance Grant Program, Attachment 1: Application Form, titled "LJAGP Application 20211108" retrieved from https://mendocino.legistar.com/LegislationDetail.aspx?ID=5205980&GUID=5C290F63-1BA8-4238-8897-5610147D447A&Options=&Search=.

the completion of a Programmatic Mitigated Negative Declaration for the cannabis ordinance.[228] However, when the state issued its initial regulations in November 2018 that required commercial cannabis businesses to undergo site-specific CEQA analysis to qualify for a state annual license, with the responsibility for conducting the site-specific CEQA analysis placed on the local jurisdiction or the individual applicant, Mendocino realized it needed to overhaul its CEQA process to conduct such analysis.[229]

Trinity had to redo its CEQA compliance in response to a lawsuit, forcing all cultivators to revise their applications, and causing almost every cultivation permit in the County to be deemed invalid in October 2021 (*Trinity County Cannabis Equity Assessment*, n.d.). Yolo also had to repeal and replace its original cannabis ordinance because its ministerial program conducted no site-specific environmental review. Under its original ordinance, Yolo initially had 78 operators who submitted timely applications,[230] and were eligible for annual local ministerial permits. As none of these operators were able to obtain state annual licenses, they do not fit within our definition of observation and are not included in our study.

Applicants face extended time frames for the approval of projects.

Instability in a regulatory program poses significant burdens on applicants, who may have to resubmit applications, adjust to new compliance standards, hire additional experts or consultants to prepare materials, and may have to delay entry into the legal market while they wait for the new regulatory program to begin. These costs likely fall differentially on small and legacy growers with limited resources. However, changes do not necessarily have to lead to obstructing the processing of permits. Humboldt was able to substantially modify its regulatory program between Ordinance 1.0 (medical) and Ordinance 2.0 (adult-use) and still was able to process the vast majority of approved projects in our study.

Two counties did have cannabis regulatory programs that predated state legalization in November 2016: Humboldt[231] and Mendocino.[232] It would be plausible

[228] *See* Mendocino County Local Jurisdiction Assistance Grant Program, Attachment 1: Application Form, titled "LJAGP Application 20211108" retrieved from https://mendocino.legistar.com/LegislationDetail.aspx?ID=5205980&GUID=5C290F63-1BA8-4238-8897-5610147D447A&Options=&Search=.

[229] *See* Mendocino County Local Jurisdiction Assistance Grant Program, Attachment 1: Application Form, titled "LJAGP Application 20211108" retrieved from https://mendocino.legistar.com/LegislationDetail.aspx?ID=5205980&GUID=5C290F63-1BA8-4238-8897-5610147D447A&Options=&Search=.

[230] Yolo County limited potential cannabis operators to those who had filed both a Notice of Intent with the Central Valley Regional Water Quality Board by October 11, 2016, and had submitted an initial cannabis cultivation license application by December 31, 2017.

[231] On September 13, 2016, Humboldt County adopted the Commercial Medical Marijuana Land Use Ordinance, Ordinance No. 2559, described as "Ordinance 1.0". (*See* https://humboldtgov.org/DocumentCenter/View/53372/Ord-No-2559-Adopted-BOS-September-13-2016?bidId=).

[232] On May 16, 2016, Mendocino County adopted Chapter 9.31 of the Mendocino County Code ("Medical Marijuana Cultivation Regulation") which allowed the cultivation of up to 99 plants per parcel with Sheriff Department-issued zip ties that were attached to the base of each plant. (*See Ordinance No. 4302. (n.d.). An Urgency Ordinance Amending Chapter 9.31 of Title 9 of the Mendocino*

that counties with pre-existing programs might be able to get a regulatory program operational more quickly because of their prior experience. However, as noted above, Mendocino's program has been revised repeatedly since state legalization and has only legalized a tiny fraction of the cultivators in the county. A key difference here again might be the extent of local political agreement on the terms of cannabis regulation – Humboldt was better able to enact and maintain a regulatory program, compared to Mendocino, producing a more stable regulatory system that could process permits.

Local regulation will often treat new cultivators differently from legacy cultivators.

We found that some counties made specific efforts to support the entry of pre-existing/legacy cultivators into their regulatory systems. Humboldt's RRR program, discussed on page 165 provided a pathway for cultivators to move from environmentally sensitive sites to more suitable locations, and several counties allowed pre-existing cultivators to operate pending the completion of their local approval process. However, despite these efforts, only one county (Monterey, with four total permits) had shorter timeframes for pre-existing/legacy cultivators than for new cultivators.

Longer timeframes for pre-existing cultivators may reflect factors that are outside the control of local governments: pre-existing (and oftentimes small) cultivators may have fewer resources or less capacity to navigate the regulatory process or hire expert assistance, and many pre-existing sites were located in remote, environmentally sensitive locations to avoid law enforcement, which makes compliance with the new regulatory standards more difficult and costly. But a key goal of cannabis legalization in California was to bring pre-existing cultivators into a legal market, partly in response to the harsh impacts that criminalization had on these cultivators over the past few decades and partly to bring existing cultivation into a structure that is environmentally safe. Longer timeframes impose costs on cultivators and likely have deterred some pre-existing cultivators from entering the legal market at all. Our findings are consistent with other researchers who have found that the regulatory system in California appears to be encouraging new, larger-scale cannabis farms outside of the Emerald Triangle, and discouraging legalization of pre-existing, smaller-scale cannabis farms in the Emerald Triangle (Dillis et al., 2021), frustrating the findings of Proposition 64 that the nonmedical marijuana industry will be "built around small and medium businesses." (Section 2, subdivision J).

Overall, our review of the planning code summaries indicates that the specifics of the regulatory program structure mattered less than having a stable regulatory program

County Code "Medical Marijuana Cultivation Regulation." http://www.co.mendocino.ca.us/bos/cgi-bin/meetings/29702/29732/30085/30096/Ordinance30096.pdf.

that was functional and compliant with CEQA. Counties that were able to maintain stable programs were able to process applications, while counties that were not, did not. This likely had significant impacts on the ability of legacy cultivators to enter into the legal system.

D. Important findings from project-level data

In this section, we summarize the important findings from our project-level data, findings that inform our development of both the key conclusions above as well as our recommendations below. We first summarize our important findings with respect to local land-use and CEQA review practices, then discuss important findings with respect to TCOAs and environmental risk and conclude with a discussion of the treatment of pre-existing cultivation sites under the regulatory system.

1. *Local land-use and CEQA review processes.*

Our review of project-level data, including TCOA, shows that more complicated or rigorous local review processes (including CEQA reviews) are correlated with longer project approval timeframes, but are not consistently correlated with more TCOAs or a higher proportion of site-specific TCOAs. This raises questions about the extent to which local regulation and review is producing meaningful information or regulatory benefit for individual projects.

We see in our data a consistent pattern that more intensive reviews – for instance, more local hearings or more thorough CEQA review – results in longer timeframes for approvals. This is to be expected, as these processes should generally take more time. The benefit of these processes, at least in theory, is that they would focus on the projects with the highest levels of risk, produce more useful site-specific information about those projects, and allow the imposition of TCOAs that would respond to the higher levels of risk from those projects.

We do find that having more hearings and having review by a higher level of approval body (e.g., the Planning Commission as opposed to staff review) produces more TCOAs overall for projects. However, it is not clear whether more stringent local review produces more site-specific TCOAs that are tailored to the specific needs of the project – the data have shown mixed results, with some counties producing more site-specific TCOAs for projects that undergo more detailed review, and other counties not doing so. It is not clear that the more detailed local review is in fact driving more useful information.

We see a similar pattern in the CEQA context. Our research grouped MNDs prepared for individual projects as project-specific, and there were no project-specific

EIRs. All other CEQA mechanisms we observed are either determinations for a project against a previously adopted environmental document for the ordinance (addenda, tiering, and consistency) or exemptions (categorical and ministerial from early Humboldt observations). More intensive CEQA review (e.g., a MND rather than tiering) does not result in a higher proportion of site-specific TCOAs for a project. Nor does project specific CEQA (i.e., the use of an MND rather than an exemption) produce more site-specific TCOAs than where the CEQA is more general (i.e., tiering), although it does correlate with more total TCOAs for a project.

One possibility is that the pathways that counties have set out for cannabis cultivation projects require most projects to go through hearings, regardless of whether projects would benefit from hearings. More than half of all projects went through a review (391 out of 733). Our data indicate that counties likely are being over-inclusive in terms of the hearings they require. However, there are two counties where this is not the case. Nevada's application system does not require hearings at all, and there were no documented appeals of approved projects. Nevada also has the shortest mean timeframe of all jurisdictions (even with a two-part, Pathway 4 system). Santa Barbara permitted by far the largest acreage with hardly any hearings at all.

The same may be true of CEQA review – the nature of the county-level CEQA review in part may be determined by the underlying regulatory pathway (including whether discretionary review is required). For instance, there is a correlation between whether a project is subject to appeal and whether it has a more stringent CEQA review. But that CEQA review is on average not producing useful additional information that supports site-specific regulatory actions.

It is the case, however, that in general, the average level of CEQA review for individual projects is relatively low – no projects went through EIRs in our dataset, and few went through MNDs. A majority of projects – almost entirely from Humboldt – used addendums. In the case of Humboldt County, the Planning and Building Department prepared a "CEQA Addendum" for individual projects which involved re-articulations of the project description combined with findings that the project will operate in compliance with the cannabis ordinance and not have impacts not previously contemplated and addressed by the previously adopted MND/EIR. In many of these cases, the underlying permit was a "ministerial" Zoning Clearance Certificate[233] with an addendum attached to it. We identified approximately 200 ZCC observations. Among these, almost 90 percent are associated with addenda. Approximately 20 observations (10 percent) were initially

[233] Humboldt considers ZCCs to be ministerial. However, because they are associated with a fairly detailed staff report, site-specific terms and conditions of approval, Compliance Agreements, and CEQA documentation (addenda), they function in practice more like discretionary land use entitlements than over the counter, annually-renewed ministerial cannabis cultivation authorizations utilized by other jurisdictions. Therefore, we consider Humboldt ZCCs to be "quasi-discretionary" land use entitlements.

approved as ministerial exemptions. This provides evidence that Humboldt tried to start with a ministerial process and then changed to a quasi-discretionary process. We cannot say for sure whether the change was because of state pressure, or because Humboldt independently decided on a different approach, but it appears plausible that state pressure may have influenced Humboldt's decision to move to a different process. Humboldt provides a possible example of how the state requiring site-specific environmental review for state licensing has resulted in unexpected CEQA outcomes and in jurisdictions adopting unusual/unconventional strategies in accommodating a regulatory hurdle that doesn't apply in other areas of land-use regulation.

We do not see much evidence that neighbor or community opposition is consistently driving processes and timeframes in our data set. The most striking evidence of a lack of local opposition to most projects is the very small percentage of projects that are subject to administrative appeals (only 1.4% of all projects, or 10 total projects). The appeal rates for cannabis projects are substantially lower than what has been observed for housing projects in California, where appeal rates are often around 20% (O'Neill, et al., 2022). Thus, we see significantly less evidence of neighborhood opposition in the cannabis context than in another development context where neighborhood opposition has played a substantial role in policy implementation.

Given the small number of appealed projects, it is hard for us to make strong statements about how appealed projects differ from projects that are not appealed, though appealed projects have longer timeframes, generally are subject to more TCOAs, but do not have a higher proportion of site-specific TCOAs.

Overall, one might expect that longer timeframes for project approvals would correlate with more TCOAs and more site-specific TCOAs – the longer the approval process, the more that the process should be able to produce results tailored to the specifics of particular projects. However, we found only a weak relationship between timeframes and TCOAs. Extended delays in project approval only correlate with a relatively small increase in the number of TCOAs for a project.

2. *TCOAs and environmental risk.*

We also find mixed evidence as to whether the TCOAs imposed by counties correlate with site conditions that show higher environmental risk. Again, this raises questions about whether the local TCOA process is focusing on the projects with the highest risk.

First, we find great variation in the total number of TCOAs across counties. Some of this variation can be explained by the variance in local regulatory programs. For instance, Mendocino operated a ministerial process that should presumably impose very few project TCOAs, with most of the regulation built into the overall ordinance.

However, even across counties with discretionary land-use processes, we found large variation between counties such as Santa Barbara (mean of 29 TCOAs), Humboldt (mean of 58 TCOAs), and Sonoma (mean of 121 TCOAs). Since our coding structure for TCOAs relied on identifying individual regulatory requirements, these differences do not simply reflect differences in formatting or structuring TCOAs across counties. It is unclear whether this large variance in TCOAs across counties reflects real variation in environmental risks across counties or instead reflects different practices in planning departments to impose TCOAs on projects, regardless of whether those TCOAs actually respond to real regulatory issues.

Some variation in the types of TCOAs across counties does appear to reflect real variation in local conditions. For instance, Nevada County has significant fire risks, so it is understandable that its TCOAs have a particular focus on that issue. Similarly, given the controversy over cannabis impacts on waterways in Humboldt County, the large proportion of TCOAs on water issues also makes sense.

Overall, counties in general had a particularly high proportion of TCOAs that covered permitting and compliance. Over one-quarter of all TCOAs were in this area, rather than in areas that related to substantive environmental or other regulatory issues. And over twenty percent of TCOAs required compliance with other regulatory standards (usually state standards).

Perhaps most significantly, we found that the number and site-specificity of TCOAs only imperfectly aligned with the level of environmental risk at the sites for individual projects. The slope of a site is a significant component of environmental risk, as projects on steeper slopes can present higher risks of erosion and sediment in waterways. But we did not find a strong and consistent relationship between steep slopes on project parcels and the number of overall TCOAs, the percentage of overall TCOAs that were site-specific, and the number of TCOAs in the environmental and water categories. We did find a somewhat stronger correlation between slope and the percentage of environmental and water TCOAs that were site-specific.

The correlation between TCOAs and the presence of waterways on a project parcel was more consistent. Proximity to waterways can be an important environmental risk factor, as it can increase the risk that runoff from cannabis projects might harm water quality, and wetlands and waterways are sensitive habitat areas that might be directly disturbed by the development of a cannabis project. We did find that the number of overall TCOAs, and the percentage of overall TCOAs that were site-specific were positively correlated with the presence of waterways on a project parcel and the density of streams on a project parcel. We also found that the number of total environmental or

water TCOAs was positively correlated with hydrography on project parcels but not the percentage of environmental or water TCOAs that were site-specific.

3. *Regulation and pre-existing operators.*

Finally, a primary goal for legalization was bringing existing illicit cultivators into the regulatory process. Prior research has found that the regulatory process appears to facilitate larger, new cultivators over existing ones, in tension with this goal. Our data is consistent with these prior findings. Pre-existing cultivators face longer timeframes for approval, even as they go through similar CEQA reviews. Factors that likely contributed to the longer timeframes for pre-existing cultivators include a slightly higher probability of having a hearing and a higher likelihood of being located on steep sites, which could require more detailed or costly permit applications and reviews. Pre-existing projects also were more likely to have a higher proportion of site-specific TCOAs, which may reflect efforts by local governments to address higher risks at some sites. Longer timeframes can increase costs and uncertainty for applicants, which may be particularly onerous for pre-existing cultivators who often do not have access to substantial capital or expertise. Importantly, we found that pre-existing operators generally had more TCOAs and longer time-frames even considering site conditions.

IX. Recommendations

We conclude with a range of recommendations for changes in law and policy to address the issues we identified in our findings and potential further research that could help advance cannabis policy in California.

A. Revise Local Regulatory Systems

1. Provide Counties with a Model Cannabis Ordinance

Many counties in California ban commercial cannabis cultivation but may choose to permit cannabis cultivation in the future. For those counties that decide to regulate, the DCC Environmental Evaluation Program[234] could provide them with a model ordinance and grant funding to establish their regulatory structure.[235] The DCC could also suggest a format for the analysis in a PEIR along with a model ordinance that, if adopted by a local government, would allow counties to conduct ministerial reviews and

[234] The DCC Environmental Evaluation Program works with local governments to develop permitting programs that meet state licensing requirements, collaborate on appropriate documentation, and identify and remove barriers in the application process. This collaboration avoids delays for applicants (*See* DCC. (n.d.-b). https://cannabis.ca.gov/applicants/ceqa-review-for-cannabis-businesses/).

[235] We do not generally recommend a model ordinance approach for counties that already have functional regulatory systems operating. However, counties that are looking to overhaul their existing systems, or that have systems that are not functioning well, might consider adopting the model ordinance as well.

provide for expedited processing of annual licenses with the DCC.[236] The model ordinance could draw on lessons from the counties that have already enacted cannabis cultivation regulations and should include the following provisions and administrative mechanisms, discussed below: (1) no mandatory hearings for uncontroversial projects; (2) ministerial review pathways for low-risk projects; and (3) deference to DCC regulations where appropriate.

2. Reduce Project Hearing Requirements

As noted above, our analysis found that hearings are correlated with more extended time frames for projects but do not strongly correlate with a higher proportion of site-specific TCOAs. County approval pathways may require low-risk projects to go through hearings with minimal benefits regarding additional information or more tailored regulation. Counties could reduce timeframes for approvals without significant impacts on environmental protection by more carefully tailoring their pathways and excluding categories of low-risk projects from mandatory hearings. Counties could still provide public notice for projects that do not require hearings and allow neighbors to request hearings where more important impacts might occur.

Ordinances should provide a pathway for land use approval types allowing discretionary review but for which no hearing is required (such as Administrative Development Permits in Nevada) or for which a hearing must be specifically requested (such as Minor Use Permits in San Luis Obispo). This approach will help expedite the review time for projects. Instead of a mandatory hearing for all projects, staff should provide neighbors within a certain radius of the project with notice of a proposed project and provide neighbors with an opportunity to request a hearing. However, a hearing should not be required if no neighbor requests a hearing.

For example, in Humboldt, local law allows the Planning Director to waive a hearing unless one is requested for special permits generally. However, the jurisdiction adopted a policy of always having a hearing for cannabis-related special permits. By holding hearings that are not legally required and that are not producing more stringent, tailored review, Humboldt likely increased regulatory red tape and timeframes for relatively moderate-scale projects. The special permit hearings are generally formulaic, with no substantive review of the project or addition of TCOAs.

The need for hearings is largely driven by the land use approval type, not the CEQA pathway. By utilizing land use approval types that require hearings, jurisdictions are locking modest or non-controversial projects into particular review pathways that don't result in better review. These hearings are rarely adding any new information or

[236] This is similar to the approach that Mendocino is taking to amend its CEQA process. The Mendocino BOS, in conjunction with the DCC, is undertaking a Programmatic Environmental Impact Report that will transition cultivators with DCC provisional licenses to DCC annual licenses (MCD UPDATES 06/07/2023).

new conditions and therefore are generally not necessary. Skipping these types of hearings would save the county and applicant time and energy.

3. Increase Ministerial Review for Low-Risk Projects

Ministerial review provides substantial benefits for local regulatory systems, where appropriate: Ministerial review avoids unnecessary delays and uncertainty for applicants, a burden that is particularly felt by pre-existing cultivators with limited resources; it also avoids CEQA review where there are no significant environmental risks. Reducing delays and uncertainty for projects with low-risk would reduce burdens on applicants with minimal impacts on regulatory outcomes. For instance, discretionary review can increase the likelihood of administrative appeals; while these are rare, they do add time (and their possibility adds uncertainty) and there was no correlation between whether a project was appealed and the imposition of site-specific TCOAs that would justify the time and expense of appeals. Likewise, we found no connection between site-specific TCOAs and the intensity of CEQA review. Where projects are low-risk and where a county wishes to support cannabis cultivation (particularly for pre-existing cultivators) ministerial processes are helpful. They also support one of the key goals of Proposition 64, facilitating transitions of pre-existing cultivators into the new legalized system.

However, counties have generally been unable to develop ministerial review processes that operate in practice, in part because of the DCC's position that state licensing is discretionary and in part because counties have not drafted ministerial pathways that have been effective. Addressing the first issue may require legislation (discussed below). Still, DCC could prepare a model ordinance to structure a ministerial system that would function well and is limited to low-risk projects. DCC could also guide how a PEIR would adequately analyze the impacts of such a ministerial process (obviating the need for site-specific CEQA review for these projects) and appropriate exceptions for the ministerial review for projects with significant impacts.

4. Defer to DCC Regulations Where Appropriate

Despite the state defining critical terms in the MACURSA, local governments have used different terms for the same concepts, and there is little uniformity in terms across jurisdictions. A model ordinance could include standardized definitions and concepts that would facilitate uniformity across jurisdictions and enable local governments to save time and money in drafting ordinances. If local definitions match state definitions, this can avoid confusion when local permits do not match state

licenses.[237] Defined terms should mirror state definitions, as cultivators' state licenses will ultimately be issued based on state definitions.

Using standardized defined terms will save review time at the state level if local cultivation permits utilize the same name as state licenses. For example, if a "small" cultivation license was the same in each county and at the state level, the state cannabis agency would need to spend less time calculating the appropriate square footage. The state defines a "small" outdoor or mixed-light license as a cultivation site with between 5,001 and 10,000 square feet of canopy (Bus. and Prof. Code § 26061(a)). Contrastingly, Mendocino defines a "small" outdoor or mixed-light permit as a permit with a cultivation area limit of 2,500 square feet (Mendocino Cty. Code § 20.242.040). This deviation of a definition could cause confusion for both the cultivator, and local and state regulators, and the mental work of having to translate the definitions could slow down the licensing process.

Another example is during our study period, the state defined "outdoor cultivation" as "cultivation *without* the use of light deprivation" which prohibited outdoor cultivators from using the light deprivation method (CCR, Title 4, Division 19, Chapter 9, § 16000(x)).[238] Contrastingly, during this same time period Humboldt defined "outdoor" cultivation as "outdoor cultivation using no artificial lighting" (Humboldt Cty., Code § 55.4.4) and allowed outdoor cultivators to utilize light deprivation. This may have led to confusion when applicants applied for a state license asserting that they were "outdoor" cultivators, when the state would have classified them as "mixed-light" cultivators.

To save applicants from duplicating application forms, local governments should utilize the same application forms that the DCC uses for cultivation applications, including but not limited to the Landowner Approval Consent Form,[239] Pest Management Plan,[240] Waste Management Plan,[241] Owner Submittal Form,[242] Premises Diagram, and Property Diagram.[243] Utilizing state forms will allow applicants to complete

[237] Defined terms that should defer to DCC regulations include lighting typology ("outdoor", "mixed-light", "light-deprivation"); canopy size ("specialty cottage", "specialty", "small", "medium", and "large"); and other terms including "owner", "financial interest", and "premises".

[238] The definition of outdoor cultivation was changed to allow outdoor cultivators to utilize light-deprivation on July 6, 2022 (*See* https://cannabis.ca.gov/wp-content/uploads/sites/2/2022/07/DCC_Consolidation-Cert-15-Day-Notice-of-Modifications-of-Text_2022-0630.pdf).

[239] *See Landowner Approval Consent Form. (2021). Department of Cannabis Control. Retrieved June 23, 2023, from https://cannabis.ca.gov/wp-content/uploads/sites/2/2021/12/Landowner-Approval-Form_211022.pdf*

[240] *See CalCannabis Cultivation Licensing Pest Management Plan. (2018, March 23). California Department of Food & Agriculture. Retrieved June 23, 2023, from https://static.cdfa.ca.gov/MCCP/document/CalCannabis%20Cultivation%20Licensing.Pest%20Management.2.pdf*

[241] *See* CalCannabis Cultivation Licensing Waste Management Plan. (2018, March 23). *California Department of Food & Agriculture*. Retrieved June 23, 2023, from https://static.cdfa.ca.gov/MCCP/document/CalCannabis%20Cultivation%20Licensing.Waste%20Management.2pdf.pdf

[242] *See* CalCannabis Cultivation Licensing Owner Annual Application. (2018). *California Department of Food & Agriculture*. Retrieved June 23, 2023, from https://static.cdfa.ca.gov/MCCP/document/Owner%20Section%20D_Annual%20Application%20-%2020181217%20(002).pdf

[243] *See* A Reference Guide for Creating a Cultivation Plan. (2019, October 13). *California Department of Food & Agriculture*. Retrieved June 23, 2023, from https://www.cdfa.ca.gov/calcannabis/documents/CultivationPlanGuide.pdf.

one form to satisfy local and state requirements, avoiding duplicative and sometimes contradictory documents. Standardized forms across jurisdictions will enable applicants who operate in multiple counties to have a streamlined application process that does not require applicants to learn a new approach in each county.

It could also be helpful if criminal background checks were not duplicated at the local and state level,[244] and instead applicants were only required to submit one background check to the state. Background checks take time to process and have costs associated with applicants being fingerprinted. It would streamline approvals and reduce applicant costs if there was only one background check at the state level.

5. Provide for model TCOAs

In addition to providing a model ordinance, the DCC could also provide model TCOAs for counties. Our analysis did not identify a consistently strong correlation between the TCOAs imposed by counties on projects and the environmental risks of those projects. Counties may be imposing TCOAs that are not necessary or may be redundant, which can create significant compliance costs for applicants. In addition, more uniform TCOAs across counties could facilitate compliance for applicants working in multiple counties. DCC could provide model TCOAs that reduce variability across counties and reduce the possibility that TCOAs are generally over- or under-protective of environmental risks. (Counties still should develop site-specific TCOAs to address high risks at particular sites.)

The state already has some default rules that it applies to cannabis: For instance, state law says there must be 600 foot setbacks from sensitive receptors unless the jurisdiction chooses something else. DCC could identify other standards such as setbacks, noise limits, or special-status species protections. Such model TCOAs would also provide support for jurisdictions that may otherwise not have the capacity to independently identify and develop those rules.

6. Audit TCOAs applicability and usage

There is some evidence in our data that counties may be imposing generic TCOAs on projects that do not closely relate to the potential impacts of those projects. Thus, we did not find consistent, strong correlations between the proportion of TCOAs that are site-specific and the environmental sensitivity of project sites. Some counties (such as Sonoma) have a very high number of TCOAs for individual projects. And even projects not in environmentally sensitive locations may still have very high numbers of environmentally related TCOAs: For instance, projects not located on steep slopes still have 20 environmental and water TCOAs, and projects without waterways on-site still

[244] The DCC requires all owners of a cannabis license to provide the DCC with a criminal background check utilizing electronic fingerprint images submitted to the Department of Justice, known as a "Live Scan" form (Cal. Code of Reg. Tit. 4, § 15002(c)(16)(K)).

have 17 environmental and water TCOAs. Counties may be imposing redundant or unnecessary TCOAs on projects. Redundant or unnecessary TCOAs may impose compliance costs on applicants, including reporting obligations or implementation costs disproportionate to the addressed risks. These costs may be particularly challenging for small-scale, pre-existing cultivators. Counties could review the TCOAs they have imposed on cannabis projects for their relevance and applicability. Generic TCOAs could be standardized; we observed significant variation that appeared non-substantive across TCOAs within counties. Planning departments could develop more specific policy guidance regarding when TCOAs are appropriate for individual projects based on site or project characteristics.

B. Support CEQA Compliance by Local Governments

1. Provide Staff to Assist With CEQA Reviews

DCC could provide grants and technical assistance to county staff to encourage the adoption of model ordinances. Our planning code summary work revealed that some counties did not have sufficient staff or department leadership to meet the demands of processing applications. They may not have had the proper land use and planning expertise within their existing planning departments or simply enough staff to process the volume of applications needing review. Counties could consider hiring outside environmental consulting firms to process applications and environmental documents,[245] hiring additional planning staff or contract planners or deferring to DCC staff to process environmental review documents as Mendocino has opted to do. Mendocino's County Counsel and Executive Office met with the DCC to discuss alternative options to allow Mendocino County cultivators a clear and viable pathway to state licensure ("Request to Mendocino County Board of Supervisors," 2023). The state has proposed providing site-specific environmental reviews in connection with issuing discretionary licenses in the form of an addendum to a programmatic EIR. Mendocino will utilize its state grant funding to create a programmatic EIR that can generate addenda for individual permits, following the approach utilized by Humboldt. Once the PEIR is complete, the DCC can generate the environmental documents, thus removing the need for Mendocino to generate additional paperwork and analysis not required by local regulation ("Request to Mendocino County Board of Supervisors," 2023). Alternatively, the DCC could provide counties with a list of environmental consulting firms that could assist with reviewing CEQA documentation, or it could issue seed grants to provide training and help set up planning programs to process applications.

[245] For example, Trinity County hired HELIX Environmental Planning, Inc. to provide full review of all commercial cannabis cultivation license applications including Appendix C - Environmental Checklists (See Cty. of Trinity BOS. (2021, November 29). *Trinity County BOS Agenda & Minutes.* Retrieved June 21, 2023, from https://www.trinitycounty.org/BOS-Agenda-Minutes).

2. Allow Ministerial Pathways and a Ministerial State License

As discussed above, DCC has maintained that all state cannabis license approvals are discretionary actions subject to CEQA. Our analysis indicates that this position is imposing high CEQA review costs on a wide range of individual applicants with minimal benefits in terms of environmental regulation for many projects. Allowing local governments to establish ministerial approval processes for individual projects with low risks to the environment would likely speed up timeframes for approvals for those projects with few negative environmental impacts. As discussed in Section II(A)(7)(c), it is unclear whether the language of Proposition 64 or MAUCRSA requires discretionary review by DCC of all individual licenses. While it might be possible for DCC to allow for ministerial state approval of licenses through regulatory or policy changes, it might be preferable to proceed through legislative action to reduce legal uncertainty.

Our recommendation for changes would be to provide a state-level review of the CEQA analysis for any local ordinance establishing any ministerial approval processes. This state-level review (which could be led by DCC, with expertise provided by CDFW, the SWRCB, and other relevant agencies) would ensure that the CEQA review provides an adequate assessment and mitigation for any significant environmental impacts from the ministerial program and ensures that there are sufficient safeguards in the approval process, including exceptions for projects that would typically qualify but have substantial environmental impacts. If DCC approves the CEQA process, then DCC would not be required to impose discretionary review on projects that proceed through the approved ministerial local process. As suggested above, DCC could accelerate the preparation and implementation of local ministerial ordinances by providing a model ordinance and guidance for the PEIR.

3. Maximize Using PEIRs to Reduce Site-Specific CEQA Review

Counties that did not undertake adequate PEIR review of their initial ordinance often had to completely redesign their regulatory process, creating substantial delays for applicants (e.g., Mendocino and Yolo). Other counties took advantage of the exception for CEQA review for ordinances that applied discretionary review to individual projects (e.g., Trinity). We recommend that counties that are implementing new cannabis regulatory programs, or overhauling existing ones, maximize to the extent possible the use of PEIRs for those regulatory programs. Using PEIRs can allow quicker processing and analysis of individual permits through lower-level CEQA reviews such as tiering. We also recognize that upfront PEIRs impose the cost of CEQA review on counties that may themselves have limited budgets. As noted above, state support for PEIR development by counties could help provide for quicker and more effective implementation of cannabis regulation overall.

C. Support Individual Cultivator Compliance and Permitting

1. Bifurcate Local and State Application Processing

Applicants must demonstrate local approval when they submit their annual license application. The DCC's average processing time for a cultivation license is 221 days (7.2 months) but it can take much longer (Cal. State Senate, 2023). The application process can require back-and-forth communication with DCC staff providing comments and feedback on application materials and processing of background checks by the DOJ. During the review, the DCC will check if the application is complete, contact the local government to confirm the applicant meets local requirements, review criminal records, and ensure compliance with state regulations. The applicant must first obtain a local permit or approval (even if CEQA compliance is still underway), and then they can apply for a state license. Requiring an applicant to complete the local application process before submitting a state license application can result in a slow process to obtain a local permit, followed by a lengthy process to obtain a state license.

To expedite the application process, the DCC could bifurcate the application, thus encouraging more applicants to enter the licensed market. In the first part of the process, the DCC could require the applicant to submit documents related to the business and ownership structure, including corporate records, financial interest holder lists, background checks, a labor peace agreement, and a surety bond. In the second part, DCC could require the applicant to submit documents related to the site, including premises and property diagrams and CEQA documentation. New York allows applicants to obtain a state "provisional license" before they have secured real estate.[246]

Bifurcating the state license application process may require a statutory change. The MAUCRSA requires the DCC to notify a local government when they receive an application. It gives the local government 60 days to respond before there is a rebuttable presumption that the applicant complies with local regulations (Bus. and Prof. Code § 26055(g)). Bifurcating the application process could shorten the overall processing time for the applicant because they could begin to resolve any DCC application issues while their local permit is pending approval.

2. Encourage Counties to Adopt Model Ordinances through State Grants That Facilitate Cultivators' Environmental Compliance

One incentive the state can provide to encourage counties to adopt model ordinances is to provide grants to applicants to facilitate compliance with environmental

[246] The Office of Cannabis Management's "proposed revised adult-use regulations formalize the provisional license and the process to receive one. Applicants without a pre-determined location seeking a license would be provided a provisional license after submitting initial information regarding their business and the applicant's eligibility. Provisional licensing will lower up-front costs for applicants and allow them a form of "pre-approval" by the State as they seek a location for their cannabis business, raise funds and capital, and build their teams" (*See Updated Proposed Adult-Use Cannabis Regulations. (2023, May 11). State of New York. Retrieved June 26, 2023, from https://cannabis.ny.gov/system/files/documents/2023/05/office-of-cannabis-management-previews-updated-proposed-adult-use-cannabis-regulations-.pdf*).

conditions. Proposition 64 established comprehensive environmental requirements for cultivators. For small cultivators to access the legal market and comply with strong environmental standards, they need financial support. Financial support to cultivators to comply with environmental conditions could include topics such as water storage, renewable energy, and road upgrades; access to support is especially needed when considering the federal status of cannabis as a Schedule 1 controlled substance which restricts farmers' access to federally funded services that other agricultural sectors receive to advance environmental compliance (Bodwitch et al., 2021).

An important example of where grants might be helpful, particularly for small legacy cultivators without significant capital, is water storage. California is prone to droughts, and every county has controversy over water source issues. The state has a forbearance period for surface water diversions for cannabis, and the Sustainable Groundwater Management Act ("SGMA") seeks to protect groundwater resources over the long term. The Humboldt County Drought Task Force suggested but chose not to adopt a policy that new crops should not be permitted when the water source is a groundwater well (Vanderheiden, 2021). Trinity County cultivators have highlighted a need for water storage infrastructure improvements, as sufficient water storage during drier months is necessary to continue cultivating (California Center for Rural Policy at Cal Poly Humboldt, n.d.). To reduce reliance on groundwater and surface water diversions, local and state governments should encourage and streamline pathways for water storage, including in tanks and ponds. The State could provide funding for installing water storage like the Water Storage and Conservation Grant Program in Humboldt ("Humboldt Grant Program"). The DCC funded the Humboldt Grant Program through the Local Jurisdiction Assistance Grant Program and provides funding of up to $60,000 per parcel to state-licensed cultivators to install water storage and implement water conservation measures. Eligible projects include the installation of water tanks, plumbing, drip irrigation systems, water metering devices, soil moisture sensors, mulch, bioswales, ponds, and pond equipment (Cty. of Humboldt BOS, 2017). Additionally, the DCC could ensure local governments are aware of existing grant funding opportunities, such as CDFW's Cannabis Restoration Grant Program, which provides grants to public agencies, nonprofit organizations, and California Native American tribes for various projects, including water conservation projects involving off-channel water storage (CDFW, 2022).

D. Encourage the Use of Data Management Systems

Robust data access and data management is central to good cannabis regulatory policy, as it assists applicants and concerned citizens in engaging with local regulatory programs and allows jurisdictions, the state, and researchers to assess how local

processes are functioning and how to improve them. Data access and management has been challenging in some counties, which makes it difficult for outsiders to assess how these local programs work. In our review of local Board of Supervisor and Planning Commission hearings and FAQs, staffers have indicated that time constraints, low staff capacity, frequent staff turnover, and a lack of continuity in planning and cannabis program leadership have contributed to some jurisdictions having incomplete, uncertain, or undigitized permitting data. Some jurisdictions maintain well-functioning, intuitive public access portals that allow stakeholders to access an abundance of project data and documents, while others utilize rudimentary applications to disclose but a small subset of public records, if they have any such digital infrastructure at all. Some jurisdictions can readily pull data reports and project documentation from internal project management systems. In contrast, others rely on paper recordkeeping that is difficult to maintain and onerous to search for, negatively impacting staff time and resources. Even when data and documents are produced through whatever means, the quality of that information can be highly variable from place to place. Data availability (or the lack thereof) significantly impacted the research team's work, so we developed a rubric for quantifying and comparing data availability across jurisdictions, as described in Table 21.

We recommend the DCC fund jurisdictions to build and improve centralized digital applications for project data management and public-facing transparency. Relatedly, the DCC can develop recommended data standards and conventions upon which those systems function. This would be advantageous for several reasons. First, it would assist jurisdictions in managing their local programs more efficiently while providing a means for enforcing local law consistently and assessing outcomes over time. Second, it would streamline and simplify the interfacing between local governments and the DCC as applicants move through the pipeline from local compliance to state licensing. Digital data management systems allow for easy provision of data (such as the creation of applicant lists) to local and state governmental bodies such as the Board of Supervisors and the DCC. Local governments should be able to automatically generate reports on permit data, CEQA compliance, permit expiration dates, etc., to ensure that communicating with the DCC regarding permittees is instantaneous and accurate. Third, it would build an invaluable dataset in the long term about how the cannabis industry actually functions within and across California so that stakeholders at all levels of government can craft more effective regulations that respond to the practice of cannabis agriculture and its unique socioeconomic and environmental impacts.

Relatedly, counties should create online permitting portals (such as Accela) to digitize applications and automate the renewal, amendment, and permit transfer

process, if applicable. The DCC could fund local governments to invest in reliable software and application development. As noted above, counties that relied on paper submittals or email submissions had difficulty maintaining records causing confusion[247] and frustration for both applicants and county staff.[248] Combining an online portal with digital data management allows a county to organize records, track renewal and expiration dates, and communicate with applicants. Online portals provide transparency to applicants, building trust in government, giving applicants peace of mind, and creating a smoother application process.

Online portals such as Accela allow applicants to apply for a permit, renew a permit, upload documents, pay fees online, and check the status of their application in real time. Applicants need access to a computer and the internet, but online portals reduce the need for applicants to have access to a printer to print hard copies of application materials. It allows applicants to see where their application is in the processing queue and access digital records of payment of fees. It also allows for instantaneous email communication to receive updates and reminders regarding applications. Digital records provide a unified location for application files and remove the risk of county staff losing paper or emailed application files, as is alleged to have occurred in Mendocino (Mendocino Cannabis Alliance, 2022).

As a case example of this approach, Mendocino has switched from SharePoint to Accela to "improve visibility and transparency and create a more efficient regulatory process" as of June 1, 2023 (Mendocino Cannabis Department, personal communication, May 16, 2023). The DCC should provide jurisdictions that regulate cultivation with a license to utilize the Accela software or funding to support a different software, including county staff training.

E. Future Research

Research could expand upon the work of this study by extending the study years to include 2021, 2022, and 2023, as additional projects were approved after January 1, 2021, when our study period ended. Two counties (Yolo and Sonoma) have

[247] Trinity County has over 700+ Commercial Cannabis License ("CCL") numbers, however, their ordinance caps the number of CCLs at 530, so they may "have duplicative or missing records and are undergoing a file audit and clean-up of their entire department" as of January 2022." The county "needs to know what they have and are in the process of doing that" (Cty. of Trinity Cmty. Dev. Services, 2022).

[248] In July 2021, the Mendocino County Cannabis Program informed applicants that they would need to resubmit their applications to the county via an electronic "portal" if they were not in "good standing" with the county. Most applicants (over 600) were required to resubmit their application via the online portal. Since the Cannabis Program had moved departments, switched from paper applications to digital applications, had high turnover with staff, and generally struggled to maintain organized files from applicants, the intention was for both the county and applicants to have a clean slate for their application submission via a digital portal. (Rifken, K. (2021, November 8). Mendocino Cannabis Alliance reports problems with county's pot portal. *The Ukiah Daily Journal*. Retrieved June 30, 2022, from https://www.ukiahdailyjournal.com/2021/11/08/mendocino-cannabis-alliance-reports-problems-with-countys-pot-portal)

substantially modified their cannabis ordinances since 2021. It would be beneficial to review and analyze the outcomes of those policy changes to examine whether those changes were effective in helping cultivators obtain state and local permits faster or were more efficient or effective in allowing cultivators to comply with state and local laws.

Another possible expansion would be to review projects that did not qualify under our definition of “observation” as they are not eligible for annual licenses. (There were a significant number of projects that received local approvals but were ineligible for state licenses in Santa Barbara, Mendocino, Trinity, and Yolo). This data would provide additional information on how local processes operate regarding time frames for approval and TCOAs.

This study only tracks successful applicants who have navigated the local approval process, completed CEQA review, and are eligible for annual licensure. An extension to this study would be to collect data on applicants who could not successfully navigate the local regulatory system. Analysis of the characteristics of projects that did not make it through the system could provide insights into the barriers these operators face to craft potential solutions to provide them with a pathway into the regulated market.

We did not review litigation related to individual projects. Several projects in Santa Barbara were appealed to the Board of Supervisors and are subject to litigation. At least one project in Humboldt that was approved by the Board of Supervisors after an appeal is currently in litigation. Future research could examine litigation and outcomes related to individual projects. Reviewing litigation against individual projects could provide additional information on the political and community pressure facing applicants and the consequences of litigated projects.

Future research could expand upon our methodology to review cultivation project approvals in other California counties not included in this scope, including Calaveras, Riverside, San Bernardino, and Ventura counties. While our study covers the eleven counties that have historically had the majority of outdoor cannabis cultivation in California, other counties may have different approval processes or different political dynamics that contrast with our study counties.

Finally, the methodology used in this study could extend to indoor cultivation projects and non-cultivation projects, such as retail, manufacturing, and distribution. There may be significantly different legal, regulatory, or political dynamics that apply in these contexts, whether because they are more likely to be in more developed areas, because they involve different kinds of operations, or because they are regulated by cities as well as counties. For instance, more developed areas may have greater levels

of neighbor or community opposition to projects, opposition that may shape how regulatory systems are designed and operated. We found significant differences between outdoor cannabis regulation and housing regulation in California, but there may be more similarities between housing and cannabis in more urban environments. Likewise, counties and cities may systematically differ in their treatment of cannabis projects. Cities may have more resources for intensive regulatory programs and may have different land-use regulatory structures that they incorporate their cannabis programs into.

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Glossary of terms, abbreviations, and symbols

Adult Use of Marijuana Act (AUMA): Proposition 64, "The Control, Regulate and Tax Adult Use of Marijuana Act" commonly known as "The Adult Use of Marijuana Act" was a voter initiative passed by the California votes on November 8, 2016, which legalized the adult-use of cannabis in California for adults over the age of 21.

Adult-Use: the legalization of cannabis for those over 21 years of age.

Annual license: refers to a state license issued by a State cannabis regulatory agency pursuant to the MAUCRSA (including the DCC, BCC, CDFA, and CDPH) that allows a licensee to engage in commercial cannabis activity for a period of one year if compliant with State regulations. The State can issue an annual license if an applicant can demonstrate CEQA compliance.

Board of Supervisors: The Board of Supervisors (BOS) is the legislative and executive authority of a county. Government Code § 25000 requires each county to have a Board of Supervisors with five members.

Building permit: A building permit is authorization from a local government giving permission to construct or build a project. Building permits are required for not only new construction projects but also renovation and remodeling projects. The building permit is put in place to allow a local jurisdiction to assess the compliance of the building and construction process based on the health and safety requirements of the applicable building and fire codes.

Bureau of Cannabis Control (BCC): The Bureau of Cannabis Control (BCC) is a former State cannabis agency that oversaw the licensure of cannabis retail, microbusiness, distribution, and testing laboratory licenses. The BCC was merged with the CDPH and the CDFA into a single new state department called the Department of Cannabis Control.

California Department of Fish and Wildlife (CDFW): The California Department of Fish and Wildlife (CDFW), formerly known as the California Department of Fish and Game, is a State department within the California Natural Resources Agency. The Department of Fish and Wildlife manages California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values, and for their use and enjoyment by the public.

California Department of Food and Agriculture (CDFA): The California Department of Food and Agriculture is a state department in the government of California. Established in 1919 the Department of Food and Agriculture is responsible for protecting and promoting agriculture.

California Department of Tax and Fee Administration (CDTFA)*:* The California Department of Tax and Fee Administration (CDTFA) administers California's sales and use, fuel, tobacco, alcohol, and cannabis taxes, as well as a variety of other taxes and fees that fund specific state programs.

California Environmental Quality Act (CEQA): The California Environmental Quality Act (CEQA) mandates environmental review for projects undergoing discretionary review. CEQA imposes notice and information requirements that involve documentation and public engagement processes around potential environmental impacts, and mitigation of potentially significant environmental impacts below a significant level where feasible. Projects must either complete a CEQA document, or a supplementary CEQA document or can be issued an exemption if the project fulfills certain criteria.

Canopy: means the designated area(s) at a licensed cannabis cultivation premises that will contain mature plants at any point in time as defined by state cannabis regulations.

Central Coast: means an area of California, made up of six counties: Ventura, Santa Barbara, San Luis Obispo, Monterey, San Benito, and Santa Cruz. For the purposes of our study, Central Coast jurisdictions include Santa Barbara, San Luis Obispo, Monterey, and Santa Cruz.

*Commercial cannabis activit*y: includes the cultivation, possession, manufacture, distribution, processing, storing, laboratory testing, packaging, labeling, transportation, delivery, or sale of cannabis and cannabis products.

Compassionate Use Act (CUA): Proposition 215, the “Compassionate Use Act” is a voter initiative passed by California voters on November 5, 1996, which gave seriously ill Californians the right to obtain and use marijuana for medical purposes where that medical use is deemed appropriate and has been recommended by a physician who has determined that the person’s health would benefit from the use of marijuana in the

treatment of cancer, anorexia, AIDS, chronic pain, spasticity, glaucoma, arthritis, migraine, or any other illness for which marijuana provides relief.

Controlled Substances Act (CSA): The Controlled Substances Act (CSA) is a federal statute that places all substances which were in some manner regulated under existing federal law in 1970 when the CSA was enacted into one of five schedules. This placement is based on the substance's medical use, the potential for abuse, and safety or dependence liability.

Cultivation: means any activity involving the planting, growing, harvesting, drying, curing, grading, or trimming of cannabis as defined by the Department of Cannabis Control Regulations.

Department of Cannabis Control (DCC): The Department of Cannabis Control (DCC) is the California State agency that licenses and regulates cannabis businesses. The DCC was created on July 1, 2021, by consolidating three former State cannabis agencies: the Bureau of Cannabis Control; the CalCannabis Cultivation Licensing Division within CDFA; and the Manufactured Cannabis Safety Branch within CDPH into one department.

Discretionary review: Discretionary review, or local discretion over land use, refers to a local government's authority to impose subjective standards when deciding on whether to approve proposed development; environmental review applies to projects subjected to discretionary review.

Emerald Triangle: A region in Northern California comprising Humboldt County, Mendocino County, and Trinity County. It is the largest cannabis-producing region in the United States.

Entitlement: Refers to a final approval for a proposed development subject to discretionary review that typically precedes the application for a building permit. Entitlement typically requires a series of approvals and documentation to proceed to apply for a building permit application. Typically, the first step towards constructing new development, the specific procedural steps and amount of time required to obtain such approval varies between jurisdictions, affecting whether and how much new development is likely to occur.

Environmental impact report (EIR): a California Environmental Quality Act (CEQA) document created to inform stakeholders and the community of the potential environmental impacts presented by a new project as well as possible mitigation strategies and substitutes for the project.

Environmental review: mandated by the California Environmental Quality Act (CEQA), projects undergoing discretionary review impose notice and information requirements that involve documentation and public engagement processes around potential environmental impacts, and mitigation of potentially significant environmental impacts below a significant level where feasible. Projects must either complete a CEQA document, or a supplementary CEQA document or can be issued an exemption if the project fulfills certain criteria.

Equity applicant: is defined by The California Cannabis Equity Act, contained in Business and Professions Code § 26240-26250 as an applicant who has submitted, or will submit, an application to a local jurisdiction to engage in commercial cannabis activity within the jurisdictional boundaries of that jurisdiction and who meets the requirements of that jurisdiction's Local Equity Program. A local equity program is a program adopted or operated by a local jurisdiction that focuses on the inclusion and support of individuals and communities in California's cannabis industry who are linked to populations or neighborhoods that were negatively or disproportionately impacted by cannabis criminalization.

Local Equity Program: Some cities and counties in California have ordinances for equity programs to help people negatively affected by the War on Drugs and create a more inclusive marketplace. Each ordinance supports equity applicants in different ways, such as faster application processes; assistance during the licensing process; help with operating a cannabis business; and direct financial support. Several cities in California have adopted Equity Programs, starting with Oakland's landmark Equity Permit Program in 2017. Humboldt has adopted an equity ordinance: Ordinance No. 2623. Lake, Mendocino, Monterey, and Nevada are developing a Local Equity Program. Each Local Equity Program has different criteria to qualify as an equity applicant. Equity Programs will often waive permit and land use application fees for equity applicants. The DCC created a parallel state program for equity fee waivers to waive state license applications and annual license fees. To be eligible for a fee waiver, cannabis businesses must meet the following criteria: (1) Equity ownership: Individuals who meet the equity criteria own 50% or more of the business; and (2) Gross revenues: The business has gross revenue of $1.5 million or less per year. If a new applicant is, the

business expects gross revenue of $1.5 million or less for the first year. Equity owners must meet at least one of the following criteria:

- Cannabis conviction or arrest: The owner was convicted of or arrested for a cannabis offense before November 8, 2016.
- Household income: The owner's household income is less than or equal to 60 percent of the Area Median Income for the local jurisdiction where they live.
- Neighborhood: The owner lived for at least five years between 1980 and 2016 in an area disproportionately impacted by past criminal justice policies implementing cannabis prohibition.

Alternatively, an applicant can show they meet the equity criteria of their Local Equity Program by providing an attestation on the fee waiver form.

Indoor cultivation: Is defined by State regulation as the cultivation of cannabis within a permanent structure using exclusively artificial light or within any type of structure using artificial light at a rate above twenty-five watts per square foot.

Impacted watershed: A watershed or other geographic area that the State Water Resources Control Board or the Department of Fish and Wildlife finds, based on substantial evidence, is experiencing significant adverse impacts on the environment caused by cannabis cultivation.

Large: Large, for the purposes of this study, is defined as a canopy above 22,000 square feet of mixed light or one acre of outdoor, mirroring definitions outlined in the *MAUCRSA*.

Lead agency: In environmental review, the lead agency is the public body that gives final discretionary approval for the project.

Legacy applicant: means an applicant who has submitted, or will submit, an application to a local jurisdiction to engage in commercial cannabis activity within the jurisdictional boundaries of that jurisdiction, and who was conducting commercial cannabis activity in the local jurisdiction in compliance with the Compassionate Use Act of 1996 before September 1, 2016.

License: refers to a state license issued by a State cannabis regulatory agency pursuant to the MAUCRSA (including the DCC, and formerly the Bureau of Cannabis Control; the CalCannabis Cultivation Licensing Division; and the Manufactured Cannabis Safety Branch) authorizing the licensee to engage in commercial cannabis

activity for a limited period. “License” includes a Temporary License, Provisional License, and Annual License. A License includes both an “A-license” and an “M-license”, as well as a testing laboratory license. An “A-license” means a state license issued pursuant to the MAUCRSA for cannabis or cannabis products that are intended for adults 21 years of age and over and who do not possess physician’s recommendations. An “M-license” means a state license issued pursuant to the MAUCRSA for commercial cannabis activity involving medicinal cannabis.

Light deprivation: Is defined by State regulation as the use of any technique to eliminate natural light to induce flowering as defined by the Department of Cannabis Control regulations.

Local approval: means a local government’s approval of commercial cannabis activity for a particular business, including local permits, licenses, or other authorization.

Mandatory Minimum Sentence: When someone is convicted of an offense punishable by a mandatory minimum sentence (MMS), the judge must sentence the defendant to the mandatory minimum sentence or to a higher sentence. The judge has no power to sentence the defendant to less time than the mandatory minimum. A prisoner serving an MMS for a federal offense and for most state offenses will not be eligible for parole. Even peaceful marijuana smokers sentenced to “life MMS” must serve a life sentence with no chance of parole. See https://norml.org/laws/federal-penalties-2/.

Mature plant: means a cannabis plant that is flowering.

Medical Marijuana Regulation and Safety Act (MMRSA): The Medical Marijuana Regulation and Safety Act is a set of three State bills passed by the State Legislature that created a statewide regulatory framework for medicinal cannabis licensure and regulation. The Act was renamed the Medical Cannabis Regulation and Safety Act (MCRSA) in 2016 upon the passage of SB-837.

Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA)*:* The Medicinal and Adult-Use Cannabis Regulation and Safety Act is a state statute that sets up a basic framework for licensing, oversight, and enforcement related to medicinal and adult-use cannabis businesses.

Ministerial/As-of-right process: Describe processes where a local government must approve a proposed development so long as it conforms to certain objective standards; environmental review is not applicable in ministerial or as-of-right processes.

Mitigated negative declaration (MND): a California Environmental Quality Act (CEQA) document created to inform stakeholders and the community that the proposed project's potential impacts on the environment can be mitigated by certain strategies and describes how the developer will implement these strategies.

Mixed-light cultivation: For the purposes of this study, "mixed-light cultivation" means the cultivation of mature cannabis in a greenhouse, hoop-house, glasshouse, conservatory, hothouse, or other similar structure using a combination of (1) Natural light and light deprivation, and either of the models listed: (A) "Mixed-light Tier 1," without the use of artificial light or the use of artificial light at a rate above zero, but no more than six watts per square foot; (B) "Mixed-light Tier 2," the use of artificial light at a rate above six and below or equal to twenty-five watts per square foot; or (2) Natural light and either of the models listed: (A) "Mixed-light Tier 1," the use of artificial light at a rate above zero, but no more than six watts per square foot; (B) "Mixed-light Tier 2," the use of artificial light at a rate above six and below or equal to twenty-five watts per square foot. Again, we rely on the Department of Cannabis Control's definition, contained in the Department of Cannabis Control Medicinal and Adult-Use Commercial Cannabis Regulations California Code of Regulations Title 4 Division 19, Department of Cannabis Control, §15000(ss). However, each study county has its own definition of "mixed-light" cultivation.

*National Environmental Policy Act (*NEPA): The National Environmental Policy Act (NEPA) mandates environmental review for all projects managed by federal agencies or sited on federal land. NEPA imposes notice and information requirements involving documentation around potential environmental impacts, and mitigation of potentially significant environmental impacts below a significant level where feasible. Projects must either complete a NEPA Environmental Assessment, or Environmental Impact Statement or can be issued a Categorical Exclusion if the project fulfills certain criteria. California provides a joint CEQA/NEPA process for some projects.

*National Environmental Policy Act (*NEPA): The National Environmental Policy Act (NEPA) mandates environmental review for all projects managed by federal agencies or sited on federal land. NEPA imposes notice and information requirements involving documentation around potential environmental impacts, and mitigation of

potentially significant environmental impacts below a significant level where feasible. Projects must either complete a NEPA Environmental Assessment, or Environmental Impact Statement or can be issued a Categorical Exclusion if the project fulfills certain criteria. California provides a joint CEQA/NEPA process for some projects.

*Negative Declaration (*ND): a California Environmental Quality Act (CEQA) document created to inform stakeholders and the community that the proposed project will not have a significant effect on the environment.

Nursery: is defined by State regulation as all activities associated with producing clones, immature plants, seeds, and other agricultural products used specifically for the propagation and cultivation of cannabis as defined by Department of Cannabis Control regulations.

Outdoor cultivation: For the purposes of this study, “outdoor cultivation” means the cultivation of mature cannabis without the use of artificial lighting or light deprivation in the canopy area at any point in time. We rely on the Department of Cannabis Control’s definition, contained in the Department of Cannabis Control Medicinal and Adult-Use Commercial Cannabis Regulations California Code of Regulations Title 4 Division 19, Department of Cannabis Control, §15000(xx). However, each study county has its own definition of “outdoor” cultivation.

Ordinances: are rules created by counties to set specific rules for the local community. They set the time, place, and manner a business can operate, or a resident can take certain actions. An ordinance only applies in the county that created it.

Planning Commission: The planning commission is a permanent committee made up of five or more individuals who have been appointed by the county’s governing body, the Board of Supervisors, to review and act on matters related to planning and development. Most planning commissioners are lay people without any previous land use experience. Commissioners serve at the pleasure of the Board of Supervisors, so commission members may change in response to changes in those bodies.

Pre-roll: is defined by State regulation as any combination of the following rolled in paper: flower, shake, leaf, or kief that is obtained from accumulation in containers or sifted from loose, dry cannabis flower or leaf with a mesh screen or sieve as defined by the Department of Cannabis Control regulations.

Processing: is defined by State regulation as all activities associated with the drying, curing, grading, trimming, rolling, storing, packaging, and labeling of cannabis or non-manufactured cannabis products as defined by the Department of Cannabis Control regulations.

Provisional License: means a State-issued provisional license that is valid for a term of one year, issued by the Department of Cannabis Control, or the previous commercial cannabis licensing authorities (including the Bureau of Cannabis Control; the CalCannabis Cultivation Licensing Division; and the Manufactured Cannabis Safety Branch) which allows the licensee to engage in cultivation, manufacturing, distribution, testing, microbusiness, or retail activities.

Regulations: Regulations are rules created by a state agency that interprets State statutes and make them more specific. Regulations apply to the whole State. The Department of Cannabis Control (DCC) promulgates regulations that apply to cannabis businesses.

Retirement, Remediation, and Relocation ("RRR") Program: Humboldt's RRR Program encourages cultivators to relocate from environmentally sensitive locations to parcels more suitable for agricultural production by providing an incentive of granting a Zoning Clearance Certificate for the new site up to four times the cultivation area on the existing RRR site, at a maximum of 20,000 square feet.

State Water Resources Control Board ("SWRCB"): The State Water Resources Control Board (the State Water Board) was created by the Legislature in 1967. The mission of the State Water Board is to ensure the highest reasonable quality for waters of the State while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables the Water Board to provide comprehensive protection for California's waters.

Small: Small, for the purposes of this study, is defined as 10,000 square feet of canopy or less, mirroring the definition outlined in the *MAUCRSA.*

Statutes: are defined as the laws enacted by the California legislature and signed by the California Governor. Statutes apply to the whole State.

Streamlining: refers broadly to accelerating environmental review processes for a proposed development on an individual project level. Streamlining can refer to "tiering" whereby counties can streamline or accelerate the environmental review process on the

individual project level by developing an Environmental Impact Report for an area within the county where development is anticipated, from which individual projects can be 'tiered,' or to predetermined CEQA exemptions for classes and types of the proposed development.

Temporary License: A temporary license is a state license issued by one of the State cannabis licensing agencies (including the Bureau of Cannabis Control; the CalCannabis Cultivation Licensing Division; and the Manufactured Cannabis Safety Branch) before January 1, 2019. Temporary licenses were valid for a period of 120-days and could be extended for additional 90-day periods at the discretion of the licensing authority.

Terms and conditions of approval ("TCOA"): TCOA are specific written terms and conditions that are applied to approved projects by a local government and are typically included in a staff report, a permit document or compliance agreement. TCOA can be generic reassertions of the local law applicable to cannabis cultivation or development generally, or they can be additional rules crafted by the decisionmaker through the discretionary review process to ensure that a project in its specific parameters will comply with local regulations.

Tiering: We define "tiering" as the process by which counties can streamline or accelerate the environmental review process on the individual project level by developing an Environmental Impact Report for an area within the county where development is anticipated, from which individual projects can be 'tiered' to satisfy environmental review requirements or qualify for predetermined CEQA exemptions for classes and types of the proposed development.

Track-and-trace: All Statewide cannabis licensees use the California Cannabis Track and Trace (CCTT) system to track the movement of cannabis and cannabis products through the supply chain. This is known as "seed to sale" tracking.

Appendices

APPENDIX A

Table 73: MMRSA, AUMA AND MAUCRSA CULTIVATION LICENSE TYPES COMPARISON

MMRSA/MCRSA Cultivation License Types				AUMA Cultivation License Types				MAUCRSA Cultivation License Types			
Type	**Description**	**Category**	**Maximum Size (plant number or canopy size)**	**Type**	**Description**	**Category**	**Maximum Size (plant number or canopy size)**	**Type**	**Description**	**Category**	**Maximum Size (plant number or canopy size)**
1C	Specialty Cottage	Outdoor	Up to 25 mature plants	N/A	N/A	N/A	N/A	1C	Specialty Cottage	Outdoor	Up to 25 mature plants
1C	Specialty Cottage	Indoor	Up to 500 sq. ft.	N/A	N/A	N/A	N/A	1C	Specialty Cottage	Indoor	Up to 500 sq. ft.
1C	Specialty Cottage	Mixed-Light	Up to 5,000 sq. ft.	N/A	N/A	N/A	N/A	1C	Specialty Cottage	Mixed-Light	Up to 5,000 sq. ft.
1	Specialty	Outdoor	5,000 square feet or 50 plants	1	Specialty	Outdoor	5,000 square feet or 50 plants	1	Specialty	Outdoor	5,000 square feet or 50 plants
1A	Specialty	Indoor	5,000 square feet of canopy	1A	Specialty	Indoor	5,000 square feet of canopy	1A	Specialty	Indoor	5,000 square feet of canopy
1B	Specialty	Mixed-Light	5,000 square feet of canopy	1B	Specialty	Mixed-Light	5,000 square feet of canopy	1B	Specialty	Mixed-Light	5,000 square feet of canopy
2	Small	Outdoor	5,001-10,000 square feet of canopy	2	Small	Outdoor	5,001-10,000 square feet of canopy	2	Small	Outdoor	5,001-10,000 square feet of canopy
2A	Small	Indoor	5,001-10,000 square feet of canopy	2A	Small	Indoor	5,001-10,000 square feet of canopy	2A	Small	Indoor	5,001-10,000 square feet of canopy
2B	Small	Mixed-Light	5,001-10,000 square feet of canopy	2B	Small	Mixed-Light	5,001-10,000 square feet of canopy	2B	Small	Mixed-Light	5,001-10,000 square feet of canopy

Table 73: MMRSA, AUMA AND MAUCRSA CULTIVATION LICENSE TYPES COMPARISON

MMRSA/MCRSA Cultivation License Types				AUMA Cultivation License Types				MAUCRSA Cultivation License Types			
3	Medium	Outdoor	Up to 1-acre of canopy	3	Medium	Outdoor	Up to 1-acre of canopy	3	Medium	Outdoor	Up to 1-acre of canopy
3A	Medium	Indoor	10,001-22,000 square feet of canopy	3A	Medium	Indoor	10,001-22,000 square feet of canopy	3A	Medium	Indoor	10,001-22,000 square feet of canopy
3B	Medium	Mixed-Light	10,001-22,000 square feet of canopy	3B	Medium	Mixed-Light	10,001-22,000 square feet of canopy	3B	Medium	Mixed-Light	10,001-22,000 square feet of canopy
4	Nursery	a cultivation site that conducts only cultivation of clones, immature plants, seeds, and other agricultural products used specifically for the propagation of cultivation of cannabis.	Up to 1-acre of canopy	4	Nursery	a cultivation site that conducts only cultivation of clones, immature plants, seeds, and other agricultural products used specifically for the propagation of cultivation of cannabis	Up to 1-acre of canopy	4	Nursery	a cultivation site that conducts only cultivation of clones, immature plants, seeds, and other agricultural products used specifically for the propagation of cultivation of cannabis	No size limit defined in statute (no canopy)
				5	Large	Outdoor	No size limitation	5	Large	Outdoor	Greater than 1 acre (no size limitation)
				5A	Large	Indoor	No size limitation	5A	Large	Indoor	Greater than 22,000 sq. ft.
				5B	Large	Mixed-Light	No size limitation	5B	Large	Mixed-Light	Greater than 22,000 sq. ft.
									Processor	Conducts only trimming, drying, curing, grading, or packaging of cannabis and non-manufactured cannabis products	N/A

APPENDIX B

Example of Santa Barbara County Affidavit for County Letter for Temporary State Licensing for Medical Marijuana Cultivation Locations in Compliance with the Santa Barbara County Code

Affidavit
for County Letter for Temporary State Licensing for Medical Marijuana Cultivation Locations in Compliance with Santa Barbara County Code

State of California
County of Santa Barbara

I, _____, *(print full name)* am requesting a letter from the County of Santa Barbara ☐ on my behalf or ☐ on behalf of _____ (*name of cannabis cultivation entity, if applicable*) <*check one box*> related to my medical marijuana cultivation site. I hereby swear, certify and affirm that:

- I am operating a medical marijuana cultivation site (hereinafter Site) located at _____ _____ *(Street Address and Assessor's Parcel Number*) that is a legal nonconforming cultivation site in conformance with Santa Barbara County Code § 35-1003.A.2 as the Site has been operated in compliance with State law continuously since on or before January 19, 2016;

- I ☐ have ☐ have not <*check one box*> received a final Notice of Determination for the Operation at this location or on this property indicating a zoning violation; and

- I ☐ did ☐ did not <*check one box*> participate in the County's Cannabis Operations Registry.

I certify (or declare) under penalty of perjury under the laws of State of California that the foregoing is true and correct and that Affidavit was executed this _____ day of _____, 20____ in _____.

_____
Signature

_____
Print Full Name

_____
Name and Address of Cannabis Entity *(if applicable)*

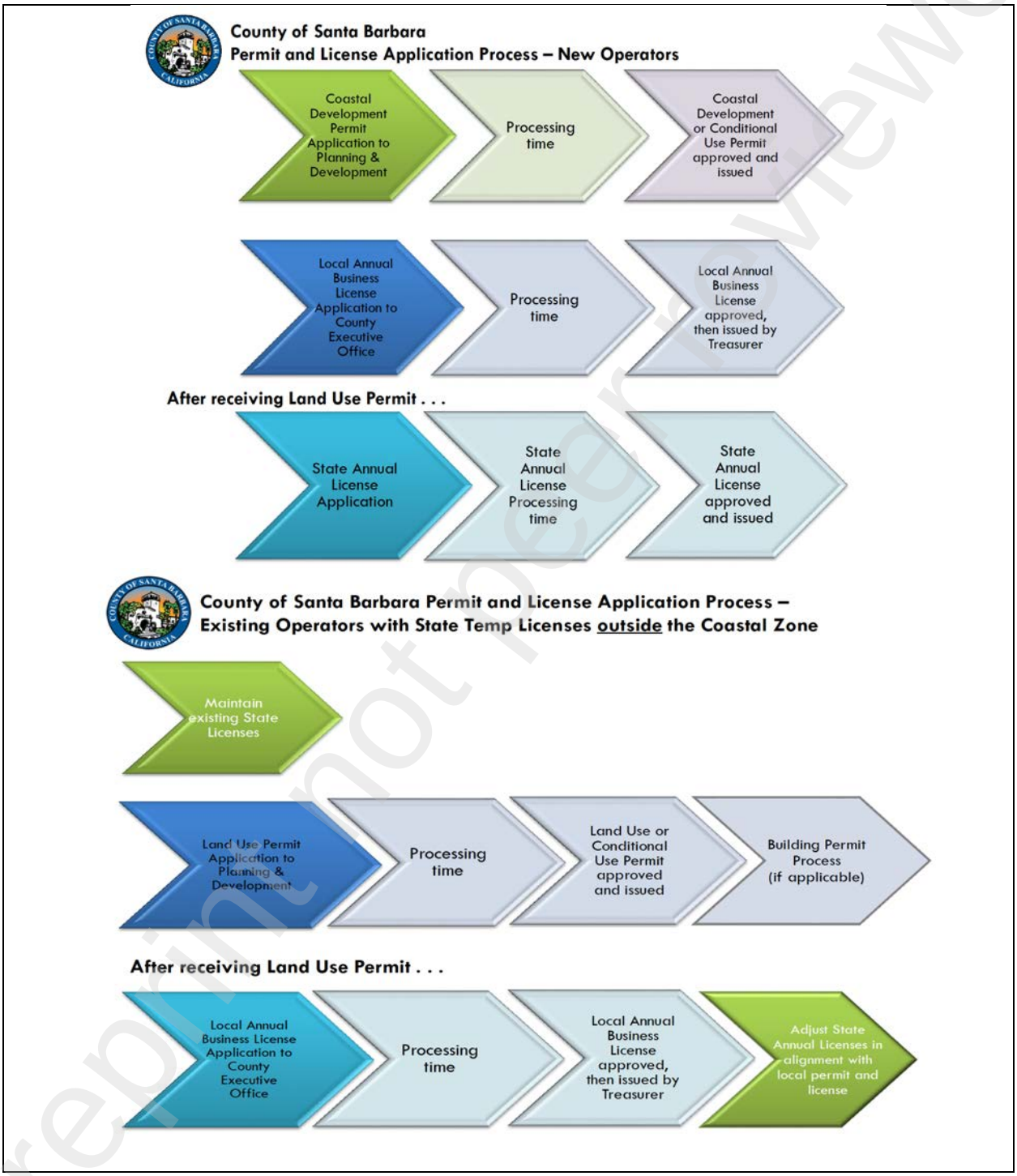
_____

Possible Attachments:
(1) Any supporting documentation
(2) Proof of authority to bind legal cannabis entity (if applicable)
(3) Proof of property owner approval for cannabis cultivation at the cultivation site.
(4) Documentation on the status of any odor control system and security plan.

APPENDIX C
Example of Mendocino County Embossed Application Receipt[249]

[249] *See* Poole, J. (n.d.-b). *Mendocino County Today: Friday, Sep. 22, 2017 – Anderson Valley Advertiser*. https://theava.com/archives/73738#1.

APPENDIX D
Santa Barbara Application Process for New Versus Existing Operators



APPENDIX E

Table 74: SETBACKS CONTAINED IN COUNTY ORDINANCES
(Numerical Values are Measured in Feet)

County	School, Day Care Center, Youth Center, Library, or Commercial Recreation Facility	Church or other place of religious worship	Alcohol or Drug Treatment Facility	Public Park, Coastal Public Access (State or Federal Park)	Property Lines and Surrounding Residences & Business Structures	Public Road	School Bus Stop	Tribal cultural resource or tribal ceremonial site
Humboldt	600[250]	600[251]		600[252]	30 from property line; 300 from adjacent residence on adjacent separately owned parcel; 270 from adjacent undeveloped parcel[253]		600[254]	600 from tribal cultural resource; 1000 from tribal ceremonial site[255]
Mendocino	1,000[256]			1,000[257]	50-200[258]			
Trinity	1,000[259]	1,000[260]	1,000[261]		350-500[262]		500[263]	
Lake	600[264]		600	600				

[250] Humboldt Cty. Code §§ 313-55.4.11(d), 314-55.4.11(d).
[251] Humboldt Cty. Code §§ 313-55.4.11(d), 314-55.4.11(d).
[252] Humboldt Cty. Code §§ 313-55.4.11(d), 314-55.4.11(d).
[253] Humboldt Cty. Code §§ 313-55.4.11(d), 314-55.4.11(d).
[254] Humboldt Cty. Code §§ 313-55.4.11(d), 314-55.4.11(d).
[255] Humboldt Cty. Code §§ 313-55.4.11(d), 314-55.4.11(d), 314-55.4.6.4.4.
[256] Mendocino Cty. Code § 10A.17.040.
[257] Mendocino Cty. Code § 10A.17.040.
[258] Mendocino Cty. Code § 10A.17.040(A)(1)-(5)).
[259] Trinity Cty. Code, Chapter 17.43.010.
[260] Trinity Cty. Code, Chapter 17.43.050(A)(1).
[261] Trinity Cty. Code, Chapter 17.43.050(A)(1).
[262] Trinity Cty. Code, Chapter 17.43.050(A)(8).
[263] Trinity Cty. Code, Chapter 17.43.050(A)(2).
[264] Lake Cty. Code § 22.40.050(D)(1).

Table 74: SETBACKS CONTAINED IN COUNTY ORDINANCES

(Numerical Values are Measured in Feet)

County	School, Day Care Center, Youth Center, Library, or Commercial Recreation Facility	Church or other place of religious worship	Alcohol or Drug Treatment Facility	Public Park, Coastal Public Access (State or Federal Park)	Property Lines and Surrounding Residences & Business Structures	Public Road	School Bus Stop	Tribal cultural resource or tribal ceremonial site
Sonoma	1,000[265]		1,000[266]	1,000[267]	300[268]			
Yolo[269]	600 ft for Existing Licensees 1,000 ft for new or relocating licensees 1,000 ft in Capay Valley[270]	600 ft for Existing Licensees 1,000 ft for new or relocating licensees 1,000 ft in Capay Valley[271]	600 ft for Existing Licensees 1,000 ft for new or relocating licensees 1,000 ft in Capay Valley[272]	600 ft for Existing Licensees 1,000 ft for new or relocating licensees 1,000 ft in Capay Valley[273]	600 ft for Existing Licensees 1,000 ft for new or relocating licensees 1,500 ft from residentially zoned land within city limits, residential areas contiguous to City limits (for new or relocating licensees[274]			1,000

[265] Sonoma Cty. Code § 26-88-254(f)(6).
[266] Sonoma Cty. Code § 26-88-254(f)(6).
[267] Sonoma Cty. Code § 26-88-254(f)(6).
[268] Sonoma County requires cultivation areas to be setback at least 100-feet from property lines; and 300-feet from residences and business structures on surrounding properties (Sonoma Cty. Code § 26-88-254(f)(6)).
[269] Yolo Cty. Cannabis Land Use Ordinance § 8-2.1408(E).
[270] Yolo Cty. Cannabis Land Use Ordinance § 8-2.1408(E).
[271] Yolo Cty. Cannabis Land Use Ordinance § 8-2.1408(E).
[272] Yolo Cty. Cannabis Land Use Ordinance § 8-2.1408(E).
[273] Yolo Cty. Cannabis Land Use Ordinance § 8-2.1408(E).
[274] Yolo Cty. Cannabis Land Use Ordinance § 8-2.1408(E).

Table 74: SETBACKS CONTAINED IN COUNTY ORDINANCES

(Numerical Values are Measured in Feet)

County	School, Day Care Center, Youth Center, Library, or Commercial Recreation Facility	Church or other place of religious worship	Alcohol or Drug Treatment Facility	Public Park, Coastal Public Access (State or Federal Park)	Property Lines and Surrounding Residences & Business Structures	Public Road	School Bus Stop	Tribal cultural resource or tribal ceremonial site
Nevada	1,000[275]	1,000[276]		1,000[277]	100[278]		1,000[279]	
San Luis Obispo[280]	1,000[281]		1,000[282]	1,000[283]				
Santa Barbara	750[284]							
Monterey					250[285]	50[286]		
Santa Cruz	600[287]		600[288]	600[289]				

[275] Nevada Cty. Land Use Development Code § L-II 3.30(D)(5)(a).
[276] Nevada Cty. Land Use Development Code § L-II 3.30(D)(5)(a).
[277] Nevada Cty. Land Use Development Code § L-II 3.30(D)(5)(a).
[278] Nevada Cty. Land Use Development Code § L-II 3.30(E)(2)(a).
[279] Nevada Cty. Land Use Development Code § L-II 3.30(D)(5)(a).
[280] San Luis Obispo Cty. Code, § 22.40.050(D)(1).
[281] San Luis Obispo Cty. Code, § 22.40.050(D)(1).
[282] San Luis Obispo Cty. Code, § 22.40.050(D)(1).
[283] San Luis Obispo Cty. Code, § 22.40.050(D)(1).
[284] Santa Barbara Cty. Code § 35.42.075(D)(k).
[285] Monterey Cty. Code Chapter 21.69.060(C)(3).
[286] Monterey Cty. Code Chapter 21.69.060(C)(2).
[287] Santa Cruz Cty. Code Chapter 13.10.650(C)(4).
[288] Santa Cruz Cty. Code Chapter 13.10.650(C)(4).
[289] Santa Cruz Cty. Code Chapter 13.10.650(C)(4).