

FINAL REPORT:

CANNABIS BANS, LOCAL CONTROL, AND THE EFFECTS AND EFFICACY OF PROPOSITION 64



INVESTIGATORS:

Christy Getz, PhD

Margiana Petersen-Rockney, PhD

Michael Polson, PhD

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Abstract:

Although adult-use cannabis was legalized by state voters in 2016, more than two-thirds of localities have opted to ban its cultivation. These bans are the most common local policy in California. Why are bans adopted? What effects do they have? Do they achieve their intended aims? What unintended costs and consequences follow? This paper documents a two-year comparative ethnographic project of four ban counties, selected for their economic, demographic, ecological, geographic, and political diversity. We found that, under certain conditions, bans can achieve—at least temporarily—their explicit aims of stopping unlicensed production and reducing environmental impacts, crime, and nuisances. These conditions include: adequate personal and medical cultivation provisions; high local costs of labor and land; selective enforcement to foster informal norms among persistent cultivators; and significant resources involving multiple agencies and strategies. We also found that, more often, bans fail to achieve their expressed aims and can even create counterproductive results. By themselves, they rarely stop cultivation, environmental impacts, criminal activities, or nuisances and can sometimes make these dynamics more pervasive or harmful. They may be less costly than regulatory programs, but they have significant fiscal impacts. They may protect the interests of some residents, but they consistently negatively impact community dynamics and social equity, especially for medical patients, low-income people, and people of color. This report gives policymakers a number of considerations to ponder when considering the ban as a policy choice. Overall, well-designed zoning and land use laws may be more effective in achieving desired aims of controlling cannabis and its impacts. In the absence of external (state) support for regulatory pathways, low-resource counties may find utility in bans, though ban policies carry their own hidden costs. We argue that absolute bans, particularly those with zero exceptions, stringent enforcement, and steep consequences, fail to achieve policy aims and can backfire. Indeed, stringent bans will often recreate the harms and stigmas of the cannabis prohibition in a state where voters expressed a desire to move away from this past and legalized cannabis.

Keywords: Cannabis cultivation, bans, equity, California, enforcement, agriculture, water, local government

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Executive Summary

This is the final report for the project funded by the California Department of Cannabis Control entitled *Cannabis Bans, Local Control, and the Effects and Efficacy of Proposition 64* (Grant No. 65021). The report narrates the history of local control and cannabis cultivation bans, an overview of project methodology, four case study analyses, cross-county findings, and policy recommendations.

Significance. Though California legalized adult-use cannabis in 2016, local governments have predominantly elected to ban the plant's commerce. Local bans on various parts of the supply chain now cover the majority of California's population and jurisdictions. Bans on cultivation are the most common ban form, covering approximately 68 percent of all localities. Quite literally, the landscape of cannabis legalization is being decided in this emergent, localized geography of bans and regulatory policies.

Importantly, ban policies are not the absence of a cannabis policy (i.e., regulation) but are themselves policies that have causes and effects. They are motivated by and have ramifications for local politics, institutional arrangements, environmental dynamics, social equity, law enforcement, public health, economic development, land use, local culture, and relations among neighbors and communities, to mention a few dimensions. Though each locality's decision to ban is unique, this project sought to understand what patterns emerge *across* ban counties. In four case studies, we decipher the causes and effects of cannabis bans, with an eye toward the match or mismatch between the two. What causes jurisdictions to ban cultivation? Do ban policies have the intended effects? What other effects do they have? In short, how do ban policies perform? Beyond assessing the efficacy of these policies locally, we also interrogate their relation to larger values advanced in Proposition 64 to legalize cannabis, including overt and implicit aims around environmental sustainability, social equity, and reforms in California's approach to "drugs."

Project Activities. The project asked: *What are the causes and effects of local cannabis cultivation bans?* The project consisted of four in-depth case studies of "ban counties," including Siskiyou, San Bernardino, Yuba, and Napa Counties. We conducted in-person ethnographic research (interviews and observations) with over 150 people; transcribed, anonymized, and proofed transcripts; oversaw a team of undergraduate research assistants; conducted background and historical research on relevant issues; employed graduate student researchers to assist with data coding and analysis. We produced and published an interim report and several fact sheets (see appendices), contributed to two white papers to the state on cannabis regulations and small farmers, presented on findings at various conferences and briefings, co-published one academic article in the *Journal of Environmental Management* (Dillis, Petersen-Rockney and Polson 2024), testified at public hearings, and drafted two article manuscripts on this research. We will make all relevant materials publicly accessible at UC Berkeley's Cannabis Research Center (crc.berkeley.edu).

Findings. We discerned numerous patterns across ban counties, which are detailed in this manuscript and include:

- Overview:
 - Bans rarely achieve or maintain eradication of cannabis;
 - Bans are resource-intensive and many counties do not have the resources to make them effective.
- Drivers of cultivation bans:
 - Concerns about water use and the environment;
 - Concerns over public safety, crime, and nuisance to residents;
 - Unrelated political agendas and efforts to gain or shift resources;
 - Limited local government resources and capacity to develop and manage permitting programs;
 - Stigma and fear of cannabis as a “drug,” not a crop.
- Enforcement approaches:
 - Vary significantly across localities;
 - Pedagogical approaches that provide cultivators a chance to address issues can foster intra-community better practices;
 - Punishment approaches that leverage high fines and fees and even jail time exacerbate many of the issues they attempt to address;
 - Ban enforcement often enrolls environmental agencies in enforcement;
 - “Wrap-around” enforcement that is multipronged, sustained, and includes remediation can limit cultivation, but is costly.
- Environmental consequences of bans:
 - Bans do not stop environmental harms and can worsen them;
 - Enforcement activities themselves often cause environmental harm without resources for remediation;
 - Bans push growers elsewhere, often into more environmentally sensitive areas such as erosion-prone hillsides or fragile desert ecosystems;
 - Bans encourage more intensive growing practices, including fertilizer and artificial light use, as growers try to harvest before being raided.
- Social consequences of bans:
 - Bans facilitate business consolidation, growing on multiple sites, and private property ownership as cultivators spread the risk of enforcement;
 - Bans create spaces in which crime can flourish;
 - Patchwork ban/permit geographies create opportunities for exploitation;
 - Bans intensify political and social dynamics in permit cities;
 - Bans limit the tools available to address cultivation;
 - Bans foster intra-community divisiveness and government distrust;
 - Bans exacerbate socio-economic disparities;
 - Bans aggravate and intensify racial inequities.

Recommendations. While zoning is important in ensuring the interests of local communities, it is not clear that bans work well for these local interests. Bans do not often meet the policy aims they purport, and they create unintended, negative effects. Further, while spatial controls are important to the integration of adult-use cannabis into local landscapes, bans impede this integration at a moment when cannabis is being socially normalized in California and the United States.

Though market conditions and regulatory challenges may not incentivize the establishment of complex regulatory programs, we believe there are paths toward mitigating the harms of bans *and* furthering the specific aims they seek. Much of this can come through exceptional cultivation allowances under bans, a reform of enforcement approaches, and reconfigured incentives and disincentives at the state level. We are cognizant, however, that these shifts are a political and institutional matter, and are rooted in longer histories of inequality and power in each jurisdiction. Because of this, bans are not simply a technical policy, but are indicative of deeper, localized struggles and histories. The shifts in approaches to cultivation (and other) bans ultimately need to address those dynamics.

In the near-term, however, several recommendations flow from our findings (see report for full elaboration):

- 1) Protect medical and personal cultivation in ban counties;
- 2) Enable small-scale exceptions at the state level to local bans;
- 3) Reform local enforcement approaches;
- 4) Redirect state agencies in their relations to ban counties;
- 5) Establish a state commission to review local-level bans and their enforcement;
- 6) Support research on the costs, consequences, and impacts of regulatory approaches.

Introduction

Broadly, this research asks: *What are the causes and effects, intended and unintended, of local cannabis cultivation bans?* We conducted four in-depth case studies of “ban counties” in Siskiyou, San Bernardino, Yuba, and Napa Counties. We stratified and selected these counties for geographic, ecological, industry, land use, political dynamics, and socio-demographic diversity. Each county is home to incorporated cities that allow cannabis, and each county borders counties that permit cultivation, facilitating comparisons in ban/permit approaches. San Bernardino and Siskiyou Counties have taken a hardline law enforcement-led approach to cannabis cultivation enforcement, while Napa and Yuba Counties offer a comparison of a “softer” enforcement approach seated in code enforcement. Selection of these counties enables a comparison in the efficacy and impact of differing approaches in ban enforcement.



Illustration 1: California’s cannabis cultivation

landscape is a legal patchwork in which farmers of the very same crop (left image) are understood as entrepreneurs in one jurisdiction and may be treated like criminals in another. For example, Sonoma County is a permit county—the right image is of permitted cannabis drying in a warehouse in Sonoma County—while growing the very same crop is banned in next-door Napa County. (Photos by Petersen-Rockney, 2022.)

Through a suite of qualitative research methods, including in-depth interviews, this study generated a detailed, integrated analysis of multiple dimensions of local bans. This project aimed to grasp why localities ban cultivation and what effects result, with a goal of producing findings that illuminate several priority research areas, including the fiscal and economic impacts of ban policies, the effects of bans on criminal justice systems, the efficacy of bans in achieving civil-regulatory aims, and the effect of bans on the environment (AUMA § 34019(7)(b)(7–9)). Specifically, our goals include: developing site-specific history and characterization; deducing commonalities and differences across sites; analyzing ban efficacy, particularly in preventing

unlicensed cultivation, criminal behavior, and environmental harms; and generating policy recommendations about bans at the state level and better practices at the local level.

Bans are currently the most pervasive local control policy in California. In prior writing, we have explored the causes and effects of bans (Polson 2015; Polson and Petersen-Rockney 2019), but little systematic or comparative study has been done of ban policies. In exploring the causes, effects, and efficacy of ban policies, this project seeks to understand this pervasive policy (which flourishes not only in California, but in the vast majority of states that have legalized cannabis). In the next section, we explore the historical development of local control and bans around the cannabis issue. Because of this history, the cannabis ban has become an important policy tool for California localities, yet, post-legalization, the ban can and does assume many qualities that mimic criminal prohibition. Balancing the expressed desire to decriminalize and regulate cannabis with the needs of localities to calibrate state policies to local conditions is a challenge. Therefore, this report aims to assess whether ban policies adequately address the causes that motivate them and to understand the effects—intended and unintended—that ban policies can have. Through our findings and recommendations, we outline ways of making bans more effective at achieving the results they overtly advance, reduce the harms associated with bans and their enforcement, and underscore key socio-political questions that can guide whether and how ban policies are adopted, adapted, and maintained.

This report specifically analyzes *cultivation* bans. Historically, California has been a significant producer of cannabis (Corva 2014) and its cultivation has been spread across the state, with geographic concentrations appearing at different moments in time and under different policy regimes (Butsic et al. 2017). Cannabis cultivation has been a critical part of rural livelihoods, communities, and ecologies (Rafael 1985; Polson 2018; Polson 2019) and, especially since medical decriminalization, a critical aspect of contemporary Californian public life (Chapkin and Webb 2008; Heddleston 2013). Cultivation was the most unregulated and gray area of law under medical cannabis policies, as governments left it largely unregulated out of fear of conflicting with federal forces, which were doggedly focused on the “supply side” of cannabis. Legalization, however, dragged cultivation into public debate and regulation. While regulation of cultivation had a tumultuous and limited history under medical decriminalization (e.g., Fine 2013; Polson 2017), legalization *required* that localities take up the question of cultivation. As explored below, the response of most localities was to avoid this question altogether by implementing bans. Yet, as we detail, bans are not the *absence* of policy, but are active policies that require enforcement and administration, incur costs, and significantly affect matters ranging from economic development to environmental health to inter-community relations. To understand bans—and cultivation bans, specifically—we excavate their historical bearings and socio-legal dynamics in the next section.

Background: Cultivation Bans

Despite legalization, the majority of California’s surface area, jurisdictions, and populations ban commercial cannabis activity. Cultivation, in particular, is the most banned commercial activity, with only 32 percent of California’s localities allowing it. While a majority of voters in California approved commercial cannabis cultivation in 2016, over 50 percent of California’s population lives in localities that have banned cultivation (figure 1). Though these bans might appear to be new forms of prohibition, common to the war on drugs, they are distinctly post-legalization, insofar as the state of California prevents direct application of criminal consequences to unlicensed cultivation. Rather than being organized under criminal or penal codes, bans are organized under the power of localities to regulate land use. The result is an uneven geography of cannabis permission and proscription.

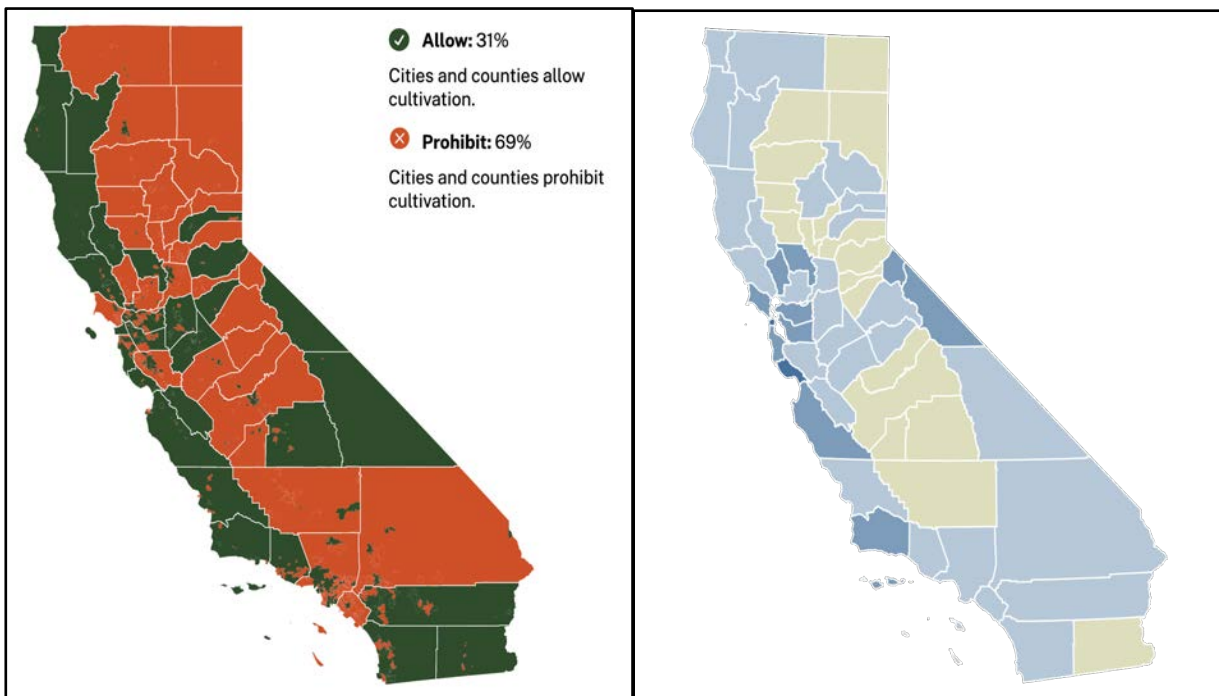


Figure 1. Map (left) produced by the California Department of Cannabis Control showing jurisdictions that allow commercial cultivation (green) and prohibit cultivation (orange). Map (right) shows counties that voted for Proposition 64 (blue shades) and against (light green). (Department of Cannabis Control, cannabis.ca.gov, accessed 2023.)

California is not alone in ceding power to local jurisdictions to decide when, how, and whether cannabis will be regulated or banned. In the US, thirteen of sixteen legalized states with developed regulations allow some form of local-level bans.¹ In Maine and Michigan, approximately 90 percent of localities do not permit commercial cannabis; in New Jersey, 70

¹ Of the remaining three, Montana has a de facto ban in counties that voted against legalization (counties have to explicitly allow it by ballot) and Nevada moved to allow bans on consumption lounges. NCSL 2023. <https://www.ncsl.org/health/state-cannabis-policy-enactment-database>.

percent; 66 percent in Colorado; half of counties in Oregon, 50 percent of New York municipalities, 50 percent of Massachusetts localities, and 40 percent of Connecticut localities. In Vermont, only 25 percent of localities have opted into the regulated program (APIS 2023). With the US legal market accounting for over 85 percent of the legalized recreational cannabis market globally (Borchardt 2023), this unique geography of bans and permits stands to affect the development of global legal cannabis geographies.

Beyond cannabis, bans on otherwise legal activity are becoming a ubiquitous approach to complex and thorny policy questions. From abortion access to homeless encampments, sex work to guns, single-family homes to sugary soft drinks, gender-affirming care to the word “gay,” GMOs to immigration policing to plastic bags, governments are availing themselves of their jurisdictional capacities to determine what activities will be expelled beyond their borders. Across the political spectrum, society’s most vexing issues are being spatially solved, or fixed, by the resolution: “not here; not in this community.” The devolution of authority to subsidiary, local governments is a common characteristic of contemporary governance approaches (Peck 2001; Brenner and Theodore 2002). Localities, however, do not have the authority to change many laws but merely to regulate their implementation within their jurisdiction (Valverde 2011). Bans, then, extend regulatory authority to its extreme; under the guise of regulating “where” and “how” an activity occurs, they decide *whether* it will occur at all. This is how bans come to decide complex, thorny issues not through the changing of laws, but through their spatial administration.

Before tracing the evolution of administrative bans in California localities, it is important to note the longer-term *criminal* ban of cannabis under California and US law. California first banned cannabis in 1913 under the Poison Act amendments and, in 1915, restricted the sale of cannabis to tightly controlled pharmacy distribution (Gieringer 1999). Whether under the federal Marihuana Tax Act of 1937 or Controlled Substances Act of 1970, cannabis was effectively banned by the federal government, with criminal consequences for violating federal law. This criminalizing ban on cannabis gained exceptions in the 1970s as states and localities decriminalized cannabis use. Though these laws alleviated the wave of felony charges ensnaring US residents, they were ultimately undermined through enforcement practices and lack of administrative will (King and Mauer 2006). This resulted in effective re-criminalization of cannabis, contributing substantially to the ballooning of prison and jail populations across the US (King and Mauer 2006; see Gilmore 2007). By 1991, a new strategy to create local exceptions to state and federal laws emerged in San Francisco under Measure P, to decriminalize medical cannabis. Out of these local control efforts, medical cannabis would eventually be decriminalized by California in 1996, which established a path toward adult-use legalization and the legal landscape of local control and bans that we now have (Bock 2000; Geluardi 2010).

It is worth noting a few characteristics of criminal bans from 1913–1996. Criminal bans were not effective in stopping production, but were effective in stimulating it. Criminally prohibiting a substance can increase its value, as it restricts supply and increases risks. This can make it a more prized commodity for market actors, who can earn risky livelihoods through prohibited substances (McCoy 2004). Indeed, supply-side interdiction strategies expressly aim to raise prices and risks to discourage consumption, but higher prices also incentivize more production. Correlatively, scholars have found that criminal bans and their risk-inducing enforcement can

counterintuitively increase drug commerce and violence (Magliocca et al. 2019; Muñiz-Sanchez et al. 2022) as they foster unwinnable forever wars. Criminal prohibition can increase informal, unregulated access to substances, as with cannabis, for which rates of experimentation increased from 4 percent in 1969 to approximately 35 percent in 1985, where it remained until at least the 2010s (some reductions were noted in some periods; see Miech and Koester 2012; Saad 2013). On its own terms, bans fail to stop commerce and use and in fact may counterproductively encourage production and violence. Criminal bans *succeeded* in growing the amount of people criminalized by drug laws (e.g., Gieringer 1999; King and Mauer 2006), especially in poor, racially marked communities (Beckett and Western 2001; Alexander 2010; Sharff 2018). Regarding cultivation, prohibition succeeded at consigning cannabis production to remote, environmentally sensitive areas (Corva 2014; Gianotti et al. 2017; Polson 2019; Dillis et al. 2021), fostering dispossession and stymieing rural development (Lu et al. 2022; McSweeney 2023), and creating negative environmental impacts (Tellman et al. 2020; Rhodes 2021). Given these dynamics, scholars have consistently drawn attention to the *failure* of the war on drugs on its own terms (Andreas et al. 1991; Bertram and Sharpe 1996) and its *success* in causing numerous unintended consequences.

There are continuities and differences between criminal prohibitions and civil-administrative bans. First, historic stigmas and marginalizing systems can persevere and shape post-legalization regulatory regimes (Polson 2015; Lashley and Pollock 2020; Reid 2020; Grisaffi 2018; Vélez-Torres et al. 2021). Second, there is little historic reason to expect that local bans will be any more effective at eliminating supply and commerce than criminal prohibition. To the contrary, as consequences decline and social acceptability of cannabis increases, there is reason to expect that administrative bans will be *significantly less effective* at stopping commercial activity, as bans will be unable to halt supply and will be undermined by growing social acceptance of legalized cannabis (Grisaffi 2018; Polson 2015). Third, if criminal prohibition's most effective lever was to affect price by increasing risks and/or reducing supply (Polson 2013), administrative bans in post-legalization settings lack that core price-affecting mechanism. The price of cannabis is no longer driven by producer risk, but instead by the average costs of, and supply of, legal and unlicensed production. Bereft of the ability to affect prices, administrative bans simply become punitive, as they punish residents for partaking in commerce that is otherwise legal. Finally, administrative bans limit the tools of local governments to regulate and render cannabis unregulated, much as it was under prohibition. Especially when enforcement is intense, bans can reproduce aspects of criminal prohibition like negative environmental impacts, oppressive patterns of punishment, economic dispossession, and disenfranchisement of targeted populations.

Cannabis cultivation bans in California evolved with medical cannabis rules. Since the passage of Proposition 215 to decriminalize medical cannabis in 1996, the issue of local government's control over cannabis allowance has been central to public debates, court decisions, and policy development in California. For the first eight years of medical decriminalization, the question of local control was focused primarily on enforcement issues. In successive lawsuits and criminal cases across California, patients fought local governments that violated rights of patients and caregivers to due process as extended under Proposition 215. These lawsuits addressed the right to transport, provision, possess, use, medically recommend cannabis, and so on. As local governments lost these civil suits and failed at winning criminal suits, often through jury decisions that suggested favorable public attitudes toward medical cannabis, district attorneys

began to reject cases, as they were essentially unwinnable. As these cases were being resolved in the early 2000s, the California legislature took up calls to regulate medical cannabis through SB420, which affirmed governmental responsibility to “avoid unnecessary arrest and prosecution” (MMPA 2003) of patients and caregivers, telegraphing to localities that arrest-and-charge tactics were an unacceptable waste (Lee 2012). Though some localities resisted this, arguing they were bound by federal, not state, law to continue enforcing anti-cannabis laws, an appellate court decided in *City of Garden Grove v. Superior Court of Orange County* (157 Cal. App. 4th 355 (Cal. Ct. App. 2007)) that localities cannot override state law in their enforcement practices. Localities had to shift their approach to state-decriminalized cannabis.

SB420 directed the state to “promote uniform and consistent application of the act among the counties within the state” (MMPA 2003). Specifically, it directed each county to administer a medical marijuana identification program (MMIP) in their public health agencies. For many counties, this stipulation was the first time they were ordered to proactively administer regulations on cannabis. Similar to *Garden Grove*, a lawsuit by the County of San Diego (joined by San Bernardino and Merced Counties) ruled that counties could not reject MMIP administration because federal law prohibits it. In effect, *County of San Diego v. San Diego NORML* (165 Cal. App. 4th 798 (Cal. Ct. App. 2008)) required counties to administer medical cannabis laws. As the MMIP was meant to assist law enforcement in identifying patients and caregivers to avoid arrest, this case also reiterated the need for a shift from criminal enforcement to regulatory administration of patients. Despite some efforts to locally regulate cannabis across the state, many of its jurisdictions elected to forgo regulations, particularly after *Pack v. Long Beach* (*Pack v. S.C.*, 146 Cal. Rptr. 3d 271, 283 P.3d 1159 (Cal. 2012)) temporarily drew into question the ability of localities to regulate at all, and federal district attorneys threatened localities with potential legal liability for positively regulating medical cannabis. In 2011, the legislature enacted AB1300, which granted localities the specific power to enact ordinances to regulate cannabis, a power formalizing the decision from *County of Los Angeles v Hill* (192 Cal. App. 4th 861 (Cal. Ct. App. 2011)) allowing localities to regulate the “manner and location” of cannabis-related activities. Localities pivoted from claiming they could not regulate cannabis at all to claiming that they could ban them under regulatory authority.

In a 2011 case, localities were given authority to ban cannabis as a form of land use regulation. In *City of Riverside v. Inland Empire Patients Health & Wellness Center* (200 Cal. App. 4th 885 (Cal. Ct. App. 2011)), the California Supreme Court determined that “[n]othing in the CUA [Compassionate Use Act] or the MMP [Medical Marijuana Program] expressly or impliedly limits the inherent authority of a local jurisdiction, by its own ordinances, to regulate the use of its land.” Included under regulations was the power to ban altogether. The ban was deemed a type of regulation since it fell under the capacity of a city to manage “public nuisances.” The designation of cannabis as a public nuisance allowed for the City of Riverside (and any locality) to regulate and abate cannabis as a land use, up to and including a ban. In affirming the ability to ban, *Riverside* built upon (and cited) the 2006 *Kruse* (200 Cal. App. 4th 885 (Cal. Ct. App. 2011)) decision, which allowed localities the ability to enact urgency ordinances to place a temporary moratorium on cannabis activities.

Two years after *Riverside*, in *Browne v. County of Tehama* (213 Cal. App. 4th 704, (Cal Ct. App 2013)), the California Court of Appeal determined that this ability to regulate extends to

cultivation: "Neither the Compassionate Use Act nor the Medical Marijuana Program grants... anyone... an unfettered right to cultivate marijuana for medical purposes. Accordingly, the regulation of cultivation of medical marijuana does not conflict with either statute." This decision was affirmed and extended in *Maral v. City of Live Oak* (221 Cal. App. 4th 975 (Cal. Ct. App. 2014)) that held "there is no right—and certainly no constitutional right—to cultivate medical marijuana" and, citing *Riverside*, that bans on cultivation were acceptable, as long as they were enacted under land use powers to define and control nuisances. *Maral* and *Browne* thus affirmed the ability of localities to ban *any* cultivation of marijuana under local land use authority. Bans, however, could not be enacted simply because it was medical cannabis. Rather, bans could only be enacted by invoking local authority to protect the health, welfare, and security of residents—and if cannabis threatened those matters, it could then be banned as a “nuisance.”

The decision to allow bans, however, was not universal legal opinion. As these decisions affirmed the ability of counties to regulate and ban cannabis, another court found in *City of Lake Forest v. Evergreen Holistic Collective* (203 Cal. App. 4th 1413 (Cal. Ct. App. 2012)) that bans on cannabis production and distribution violated state affordances to patients. Designating medical cannabis as a “per se, categorical nuisance” undermines state law by not recognizing specific state carve-outs for acceptable forms of cannabis distribution and production (i.e., collective or cooperative forms). This case was ultimately rendered moot under *Maral* that land use powers, up to and including bans, could be enacted through local land use powers. These cases settled the ability of California’s localities to ban and regulate cannabis.

With the legal path toward moratoria and bans cleared, localities across California began to resolve longstanding conflict and legal uncertainty through bans. Others simply had no regulatory policy, bans or otherwise. In 2015, the Medical Marijuana Regulation and Safety Act (MMRSA) was passed, which aimed to clear up twenty years of legislative ambiguity. Among its provisions, however, was a drafting error stipulating that if no medical cannabis land use regulations were in place by March 1, 2016, local control would be lost and the California Department of Food and Agriculture (CDFA) would become the sole licensing authority. Localities rushed to create policies, including bans, even though the state eliminated the March deadline in February. Regardless, 160 local jurisdictions, or 30 percent of all California localities, “either approved or introduced bans on cultivation” (Biber et al. 2023).

Proposition 64, codified in the Adult Use of Marijuana Act (AUMA) explicitly included local control and the power to ban commercial cannabis activity in its provisions. The inclusion of ban authority in AUMA was controversial among advocates, but its inclusion was seen as necessary to avoid legal challenge under precedent set by *Riverside* and *Maral*, not to mention win the support (or non-opposition) of California League of Cities, among others (Schroyer 2021). In turn, Medicinal and Adult Use Cannabis Regulation and Safety Act (MAUCRSA), the legislation that in 2018 unified MMRSA and AUMA under one set of rules, continued this local control authority to ban.

There are two important limitations to local ban authority. First, localities may not ban a state allowance for six indoor plants for personal or medical use. (California’s Office of the Attorney General (2019) clarified in a memo that a collective garden, run by a caregiver, for up to five

patients is permissible without a state license, as long as certain requirements were met. Presumably, localities cannot ban these small-scale collectives, as collectives were generally allowed under *People v. Baniani* (*People v. Mentch*, 45 Cal.4th 274, 85 Cal. Rptr. 3d 480, 195 P.3d 1061 (Cal. 2008)) and this specific allowance for patients is codified in California’s Business and Professions Code 206033(b.) State law read that personal-use indoor cultivation could be reasonably regulated by localities and the ban on outdoor production would be lifted if federal prohibition is ended. While many localities put extensive regulations on the six indoor plants, which often make personal cultivation impossible, it is worth noting that *Mike Harris v. City of Fontana* (San Bernardino County Superior Court Case No. CIVDS 1710589 (Cal. 2018)) in San Bernardino County in 2018 struck down extensive, even overzealous, restrictions that included inspections, permitting, fees, and residential requirements, some of which would only be appropriate if cannabis cultivation were subject to “criminal prosecution.” The court noted that Fontana’s regulations appeared “not to *regulate* cannabis cultivation for personal use, but to stamp it out entirely” (McGrath 2018). This decision, however, was not appealed by the city, so, while it could be cited in other jurisdictions, it was not generalized to all California localities.

The only other limitation to local bans is on cannabis delivery services and transport of cannabis (and related material) on public roadways. In *County of Santa Cruz v Bureau of Cannabis Control* (County of Santa Cruz v. Bureau of Cannabis Control, Fresno County Superior Court Case No. 19CECG01224 (Cal. 2020)), twenty-four localities sued the state with the aid of California League of Cities (Lange 2023), arguing that local bans on retail should extend to cannabis deliveries. The court ruled that, while localities could regulate deliveries, they may not ban them outright, as delivery on public roads was legislatively guaranteed. The lawsuit, however, left open the potential that while counties may not ban delivery on roadways, they could ban the sale of cannabis at a household where cannabis is delivered (Lange 2023). This matter was partially addressed in 2022’s SB1186, which prevented any locality from banning medical delivery, beginning in 2024, and would universally allow those delivery services to operate an office within local jurisdictions (subject to local regulations). Many localities have maintained their bans on adult-use sales (if not the act of delivery) and rely on an “outside-in” model to allow medical deliveries into the locality, but still bar the physical presence of a delivery office (Lange 2023). The latter model may violate SB1186 and be open to legal challenge, if defended by localities.

Though the state ceded local regulatory/ban authority to localities, it did include at least one incentive to encourage the formation of regulatory programs. According to section 34019 of Cannabis Tax Law, the California Department of Tax and Fee Administration (CDTFA) specifies that proceeds from cannabis tax revenue should be deposited into an account for local law enforcement *but only localities that do not ban cultivation or retail* (our emphasis) would be allowed to draw on these funds. This denial of state enforcement funds to ban counties was the only regulatory incentive to encourage regulatory programs, though other programmatic incentives exist, such as grants to localities with equity programs or localities that require assistance in establishing or maintaining permit systems. There were, of course, reasons why localities would also want to create regulatory programs, such as the lure of local tax revenue, the open address of long-standing conflicts, the regulation of land use, protection of natural resources, and the ability to foreclose illicit spaces where crimes and harms are possible.

In this report, we explore the reasons, or causes, that motivate bans. We categorize them into three broad categories. First, bans may avoid policy conflicts, implementation challenges, and costs. Second, localities may seek bans to prevent associated actions like environmental harms, crime, aesthetic offenses (e.g., smells), and unlicensed cultivation. Third, localities may pursue bans because of related or unrelated political or institutional agendas, as from other industries, governmental agencies, political leaders, or residential groups.

Each California locality has contributed to creating an uneven state map of bans and permit programs. Every coastal county except Los Angeles and Orange (fifteen of seventeen, including Contra Costa and Alameda Counties in the Bay Area) allows some kind of commercial cannabis activity. Thirteen other inland counties permit some cannabis activity. Meanwhile, the other twenty-eight counties prohibiting commercial cannabis activity lie inland (see figure 1). As we argue in a recently published article (Dillis et al. 2024a), bans and restrictive zoning has translated into the exclusion of cannabis from “traditional” agricultural zones, particularly those of the Central Valley. Conversely, permitted cannabis has been largely consigned to more environmentally sensitive regions of the state, a phenomenon that increases regulatory costs and challenges, incites environmental and other conflicts, and can effectively re-marginalize cannabis within and between counties. Generally, we have not seen large-scale conversions of counties from bans to permits or vice versa, though we have found examples in both directions (e.g., Riverside County, which lifted its cultivation ban; the City of Hesperia, which allowed medical delivery but has since banned it; the City of Fontana, which banned retail but has since allowed it; Calaveras County, which first permitted cannabis, then banned it, then allowed it again).

In the past few years, shifting market and policy conditions have altered the logic of why bans may be implemented or repealed. First, permit programs proved to be expensive to administrate (depending on the complexity of local programs) and were prone to lawsuits in ways that ban policies were not. A major aspect of this was the requirement to correctly implement California Environmental Quality Act (CEQA) reviews, which stalled regulatory programs, denied counties revenue generation, and carried their own litigation costs when various groups objected to the manner of CEQA review. Second, the decline of wholesale cannabis prices between 2021–2023 translated into declining tax revenues for counties that permitted cannabis. Under pressure, some localities lowered or suspended cultivation taxes and the state suspended its cultivation tax in 2022. Tax revenues were a major incentive for localities to consider permit programs. Third, the glut in supply that caused price declines bolstered observations that there was little need for the lifting of cultivation bans, specifically. More production in more jurisdictions would likely sink prices even further. The same was not true for bans on retail outlets, which would have the effect of expanding consumer markets and absorbing some of the overproduction glut. To address this, the state created the Local Jurisdiction Retail Access Grant to encourage localities to lift bans and develop regulations for retail.

As reasons to lift bans (particularly on cultivation) wane, it is likely that bans will become a part of California’s landscape for the foreseeable future. This project, then, investigates the causes and effects of cannabis bans. Why are they implemented? What do people expect they will do? Does this accord with what bans actually do? Do bans achieve what they set out to do? Do they cause harms? As a policy, do the proposed benefits of bans outweigh the harms? Is there a way to alleviate those harms and/or maximize benefits? And who gets to define what benefits and

harms matter to whom? That is, whom do ban policies serve and whom do they neglect? Underlying all this is a central challenge: how does California balance local control with state aims? This question is critical when weighty matters are at stake like equity, environment, fiscal health, policing, patient rights, and economic development—matters critical to both local and state governments. With that, we turn to our study.

Summary of Research Activities

We conducted fourteen total fieldwork visits to Siskiyou, San Bernardino, Yuba, and Napa Counties during 2022 and 2023. We built contacts with local residents and officials and conducted in-depth interviews and ethnographic observations. Such qualitative work is essential to study stigmatized or illegal activity (Adler 1990), like banned cannabis cultivation. We also conducted remote interviews via Zoom with public officials. Together, these activities facilitated the development and deepening of relationships, including building trust with vulnerable research participants, which are unique and essential to research on illicit activities.

We often use the term “illicit” to distinguish between what is acceptable and unacceptable in a given social context. “Illicit” does not always align with illegal or unlicensed activities, and while it can have a moral valence, we do not use this term in a moralistic way. We use the term illicit, not illegal, because growing cannabis in California is not, itself, illegal, yet has been marked as unacceptable, or illicit, in many local jurisdictions. “Illicit” brings attention to the social context that produces illicitness, rather than presenting the law as devoid of political and cultural decisions (Lu et al. 2022; Polson 2015). We avoid the term “unregulated” because bans are a form of regulation, and, even if the practices of cultivation in ban localities are out of reach of government regulation, other forms of social and economic governance still exist in these spaces. Finally, we often opt for the term “unlicensed” or “unpermitted” to describe cultivation or other cannabis-related activity. These terms merely indicate whether or not permits or licenses are issued for activities and avoid thornier issues of morality, acceptability, or conflicting legalities.

We conducted over 160 ethnographic interactions (tables 1 and 2), primarily in-depth interviews with individuals, as well as group interviews, and more informal observation and participant discussions. We hand-recorded detailed field notes of interactions and observations each day, which we typed into 443 pages of single-spaced field notes. With informed consent, we audio-recorded forty-six interviews. Many people preferred not to be recorded, and we took detailed notes during these interactions. We transcribed recorded interviews using happyscribe.com software; we have a non-disclosure agreement with Happy Scribe to ensure protection of transcripts and audio files. Undergraduate research apprentices (RAs) checked transcripts for accuracy and corrected software mistakes. Graduate student RAs then coded interview transcripts and fieldnotes in Dedoose qualitative coding software. We developed a mix of deductive codes derived from our research and interview questions and related literature, and inductive codes emergent from the data itself. We organized twelve parent codes and sixty child codes into a codebook with clear inclusion and exclusion criteria for each code. We held regular team meetings to iteratively refine codes and their definitions and checked coded segments for

consistency in code application across coders. All interviews were protected by security protocols detailed in our institutional review board certification (SPO ID: 051499-001) with the aim of ensuring the confidentiality and security of all participants, minimizing or eliminating risks to participants, and codifying mechanisms and procedures to enact these aims.

The primary researcher team (Drs. Polson, Petersen-Rockney, and Getz) collectively drafted this report. We held two several-day writing retreats to review data, outline the report, and begin drafting text. We then each wrote first drafts of report sections and edited and added to each other’s drafts. Matt Mullins assisted with line editing and undergraduate RAs assisted with citation formatting.

We follow citation norms for ethnographic research. Specific quotes from interviewees or observations from fieldwork are not cited in-line, in part to maintain participant anonymity. Material from secondary sources are referenced. Therefore, materials and claims not cited in the text are directly from our own data.

Table 1. Interviewee Categories

Interviewee category	Ethnographic interaction, primarily interviews
State agency staff	15
Local government staff and officials	27
Local law and code enforcement staff	13
Local business owners and residents	31
Medical cannabis advocates	24
Cannabis cultivators	53
Total	163

Table 2. County Fieldwork Summary

County	Fieldwork trips	Fieldwork person days spent	Ethnographic interaction, primarily interviews
Napa	June 2022, Sept. 2022, Oct. 2022	25 days	23
San Bernardino	June 2022, Dec. 2022, Jan.-Feb. 2023	30 days	55
Siskiyou	June 2022, October 2022, May 2023, Sept. 2023	38 days	55
Yuba	June 2022, July 2022, Oct. 2022, Sept. 2023	34 days	30
Total	14 trips	127 person days	163

Through this project, we have mentored twelve undergraduate RAs² through UC Berkeley’s research opportunities programs, designed to introduce students from backgrounds and identities underrepresented in academia to research. Undergraduate RAs proofed transcripts, helped create discourse and policy development timelines for each county, and helped collect secondary source materials from policy documents to news articles to social media accounts. Five of the undergraduate RAs also assisted with the creation of short factsheets highlighting high-level research findings.³ Three graduate student RAs assisted with qualitative coding.⁴

Though proposed to begin in early 2021, this project was delayed until February 2022 due to grant and hiring delays. Because of this, we received a no-cost extension to January 2024.

Our research team led and participated in the drafting of several policy papers for the California Department of Cannabis Control (DCC). “Policy Findings and Recommendations Regarding California Cannabis: Farming, Regulation, and the Environment” was led by Polson, and Petersen-Rockney was a co-author. This collaborative white paper drew from research projects conducted by multiple members of UC Berkeley’s Cannabis Research Center, many of whom were funded by the DCC. The policy brief “Smaller Cultivation and California Cannabis Policy: Recommendations for a Multi-scale Cultivation Sector” was led by Polson, with Petersen-Rockney and Getz as co-authors. That policy brief included researchers at UC Berkeley, University of California, Davis, California State Polytechnic University, Humboldt, University of California, Riverside, and the Community Alliance with Family Farmers. Both documents

² Anhika Bui, Shawntaya Jeanes, Orianna Jia, Soumaya Lhamous, Eric Manooki, Juliann Ngoc Ly, Allison Phuong-Vi Nguyen, Olivia Roark, Sophia Robles-Mendoza, Perri Russell, Mia Uribe, and Tim Ywjpheej Vang.

³ Anhika Bui, Orianna Jia, Olivia Roark, Mia Uribe, and Tim Ywjpheej Vang.

⁴ Jasmine Martin, Gauthami Penakalapati, and Mindy Price.

draw from our initial research findings and make associated policy recommendations directly to the DCC.

We also created four factsheets (in English, Spanish, and Hmong) and a short video describing our research findings. Petersen-Rockney and Polson co-authored a refereed academic article drawing on this work with Dr. Chris Dillis on geo-social marginalization of cannabis cultivation (*Journal of Environmental Management*, 2024) and Petersen-Rockney co-authored a refereed article with Drs. Juliet Lu and Laura Dev on environmental discourse in illicit crop interventions (*Political Geography*, 2022). Getz, Petersen-Rockney, and Polson currently have three co-authored articles in process that describe: 1) findings on bans, their drivers, and processes of enforcement; 2) the ways that climate and drought anxieties combined with the regulatory patchwork of local cannabis policy in California are creating opportunities for racial disparity in water and land use policy enforcement; and 3) how cannabis cultivation compares to, and is rapidly replicating, social and environmental inequities documented in other consolidated agricultural industries. We have also presented our findings at academic conferences such as the annual meetings of the Rural Sociological Society (2023); the Agriculture, Food and Human Values Society (2022); and the American Association of Geographers (2022). We also presented our findings at a legislative briefing to California policymakers organized by the University of California Office of the President (2023), and Petersen-Rockney presented findings at the State of California Assembly (2023).

Case Studies

We selected four counties that have banned cannabis cultivation for in-depth ethnographic research: Siskiyou, San Bernardino, Yuba, and Napa Counties (table 3). Our focus is on bans in unincorporated areas (not incorporated cities).

Table 3. County Basics (data from 2020 US Census and 2017 USDA NASS Census)

	Siskiyou	San Bernardino	Yuba	Napa
County size (square miles)	6,347	20,105	644	789
Population	44,076	2,181,654	81,575	138,207
Density (population per square mile)	7	108.7	129.1	184.4
Median household income	\$49,857	\$70,287	\$62,666	\$97,498
Poverty rate	16.8%	13.2%	15.6%	9%
Racial demographics	- 74.2% White, not Hispanic or Latino - 13.9% Hispanic/Latino - 1.5% Black/African American - 0.4% American Indian and Alaska Native - 1.7% Asian - 0.4% Native Hawaiian and Other Pacific Islander - 5.8% Two or more races	- 25.4% White, not Hispanic or Latino - 55.8% Hispanic/Latino - 9.4% Black/African American - 2.2% American Indian and Alaska Native - 8.5% Asian - 0.5% Native Hawaiian and Other Pacific Islander - 3.8% Two or more races	- 51.7% White, not Hispanic or Latino - 30.5% Hispanic/Latino - 4.8% Black/African American - 3% American Indian and Alaska Native - 7.8% Asian - 0.6% Native Hawaiian and Other Pacific Islander - 6.7% Two or more races	- 50.4% White, not Hispanic or Latino - 35.6% Hispanic/Latino - 2.6% Black/African American - 1.3% American Indian and Alaska Native - 9.1% Asian - 0.4% Native Hawaiian and Other Pacific Islander - 3.5% Two or more races
Number of farms (non-cannabis)	745	1,062	764	1,866
Average size of farm (acres)	923	64	235	137
Top agricultural	Beef cattle, forage (hay,	Beef cattle, poultry	Rice, tree crops (walnuts, plums,	Grapes, beef cattle, forage

products (by acre)	alfalfa), grain (wheat, barley)	(chickens, turkeys), forage (hay, alfalfa), oranges	prunes), forage (hay, alfalfa), almonds	(hay, alfalfa)
Average per farm government payment	\$24,197	\$23,123	\$80,808	\$23,112
Average per farm net cash income	\$53,720	\$54,716	\$57,060	\$50,257

Siskiyou County

Background

Siskiyou County was among the first counties in California to ban cultivation and has taken a firm anti-cannabis approach, innovating new legal tools and enforcement strategies in attempts to eradicate cannabis cultivation. Siskiyou has become pivotal in debates over cannabis bans, policing, and racial disparity. Our research, drawing on richly textured ethnographic data and archival materials collected during this project, as well as materials from our previous work in Siskiyou County in 2017 and 2018, reveal that cannabis bans can: 1) emerge from concerns over local agriculture and cultural heritage; 2) consume significant local resources; 3) leverage state agencies, powers and resources to enforce those bans; 4) have detrimental effects on marginalized populations, who become more visible and vulnerable to enforcement, and equivocal effects on economic development and environmental quality; and 5) hinder the ability of environmental and social protection agencies to regulate and mitigate environmental and social harms of cultivation activity.

In the far northern reaches of the state, on the Oregon border in the mid-Klamath river basin, Siskiyou’s geography is unique. Siskiyou is home to three agricultural valleys where irrigated alfalfa and irrigated pasture acreage predominate (32 percent and 47 percent of land area, respectively, accounting for 39 percent and 55 percent of the county’s irrigation water, respectively; Cole and Medellin-Azuara 2021). Each is surrounded, and separated, by mountains: the Scott, Shasta, and Butte, as well as the Tulelake area in the far northeast part of the county. The western part of the county is remote and mountainous. Many described parts of this region as an extension of the Emerald Triangle that, as one county board supervisor put it in an interview, “has always had a hippie growing history, mom and pops kind of stuff that was kind of benign” and seemingly tolerated by the county government. The Scott and Shasta Valleys are home to tributaries of the Klamath River that remain arguably the most important breeding grounds for endangered Chinook and coho salmon in the lower forty-eight states. The Shasta Valley is large, in the center of the county, and is where the county’s largest incorporated cities

are located: Dunsmuir, Mount Shasta, Weed, and Yreka (from south to north). Interstate 5 runs through the Shasta Valley, which is dominated by Mount Shasta, a still-active volcano that has created a complex geology with unpredictable and difficult-to-model hydrologic flows underground. Shasta Valley also features several large rural subdivisions where recent in-migrants, especially racial and ethnic minority communities, have bought parcels and grown cannabis.

One of the largest, poorest, and whitest counties in California, Siskiyou is very rural, with just seven residents per square mile, compared to California's average of over 250 (US Census 2020a). Siskiyou property values compare poorly to the rest of California—the median price of homes sold in 2022 was \$340,000 in Siskiyou, compared to nearly \$900,000 across the state (California Association of Realtors 2024). Similarly, median household income in Siskiyou is only about half that of residents across the state (\$53,898 compared to \$91,905; US Census 2020a). Home to just under 44,000 people, Siskiyou County's white population stands at 85 percent; Asian Americans comprise just 1.8 percent of the county's populace (US Census 2020a), yet have become central in debates about cannabis cultivation and local control.

More than 60 percent of Siskiyou's land area is owned by the federal or state government, which local officials point out means that the majority of county land does not generate tax revenue for the county (Siskiyou County Website). While many of Siskiyou's early in-migrants were gold miners, later waves of in-migrants engaged in timber and agriculture industries. Over time, Siskiyou's economy has transitioned from natural resource dependent extractive industries, like timber harvesting and agriculture, to public sector and service jobs. Several factors led to an especially rapid decline in the 1990s to the region's timber industry, which was a significant local employer. Logging primarily occurred on public land, which provided the county government with significant tax revenue before the industry's collapse (Mann 2007). The 1990 listing of the Northern Spotted Owl on the federal endangered species list was identified by many residents as the final nail in the coffin of an unsustainable timber economy that had, by that point, harvested much of the region's old growth trees, which local mills had been designed to process (Doremus and Tarlock 2008). While the amount of land in agricultural production has remained relatively constant over the past half century, the number of farms has decreased significantly as family farms across the US have experienced livelihood loss and rapid consolidation (Labao and Meyer 2001). Beef cattle on range have long been, and remain, a primary agricultural enterprise in Siskiyou, but crop land management has shifted significantly over the past twenty years from primarily dry-land grain production to irrigated alfalfa for export markets (Siskiyou County Annual Crop Reports 2000–2020). The cultural importance of mining, timber, and especially agriculture, however, remain central to the region and dominantly expressed values of self-reliance, hard work, and property rights (Polson and Petersen-Rockney 2019).

Smaller-scale family farmers are especially important ideologically in Siskiyou County, “inscrib[ing] their moral character into the landscape” and representing a romanticized “imagined autonomy” (Dudley 2000, 8) predicated on nostalgia (Doremus and Tarlock 2003) and white agrarianism (Calo 2020). Many family farmers experience a disjuncture between the imagined autonomy of the independent family farm and the reality of livelihoods dependent on government support (direct and indirect) and off-farm wage work, often done by women (Buttel

and Gillespie 1984; Barlett, Lobao, and Meyer 1999; Allen and Sachs 2007). Dearly held ideals that “small farms provide the basis for a richer community life and a greater sum of those values for which America stands” persist (Goldschmidt 1946, 283), even as owner-operated family farms have declined sharply since their height of prominence in 1935 (Kloppenborg 2005). Locally powerful actors, many of them multigenerational white farmers and ranchers and their representatives in local government, define and defend a culturally specific “right to be rural.” The homepage of the county’s website provides “A Primer for Living in Siskiyou County” explicitly for “newcomers” which describes a “right to be rural” in a place where locals “often consider city conveniences and amenities to be a nuisance or worse” (Siskiyou County 2005, 1, 5). Newcomers are warned: “If you choose to live among the ranches of our rural countryside, do not expect county government to protect you from the normal day-to-day operations of your agri-business neighbors” (Siskiyou County 2005, 5). Yet, as this case highlights, the county government has been eager to intervene to restrict cultivation of cannabis.

Signs welcoming travelers to the “State of Jefferson” dot the highways of Siskiyou County. Jeffersonian flags adorn barns, proclaiming a libertarian and federalist political position. Yreka, the county seat, was slated to be the state capital of the Jefferson state when the secessionist movement first arose in 1941, with the goal of creating a fifty-first state, comprising parts of southern Oregon and northern California (Derrick 2014). Since its inception, the physical boundaries of the State of Jefferson have shifted and expanded, leading scholars to often define the state as “mythical” or a “state of mind” (Derrick 2014). However, a vision of rugged individualism, tied to notions of the landscape’s ruggedness and remoteness from urban centers and state power, has united the places and people that form the State of Jefferson (Derrick 2014). Driven by a sense of taxation without adequate political representation at the state level, and concerns that the state of California would over-regulate water—the “real gold of the West” (Siskiyou County 2005, 7)—secession talk arose again in 2013. That year, the Siskiyou County Board of Supervisors voted four to one to secede from the state of California and 44 percent of voters in the county affirmed their preference to secede, stating “We declare the State of California is in open rebellion and insurrection against the government of the United States” (Kirsch 2021). Matthew Derrick, a geographer at Humboldt State University (located in the projected State of Jefferson) argues, however, that an overly narrow focus on secession and definitions of the State of Jefferson as unreal in some way can

distract from the real-life and everyday struggles of economic transformation, political disputes over land (e.g., water rights, forestry practices, etc.), environmental concerns, and other pressing issues that are common to the region... obfuscating the hand of government in subsidizing the region’s putative rugged individualism. (Derrick 2014, 7)

Cannabis cultivation has arisen in Siskiyou County over the past decade as one such “pressing issue.”

Cannabis Policy Dynamics and Evolution

Siskiyou’s rural landscape has featured cannabis cultivators for decades, especially in the remote western mountains that border Humboldt and Trinity Counties. Many growers in that area helped develop the expertise and cannabis genetics that the industry is built on today. From 1996–2015

mostly white, and some Indigenous, medical growers—especially in the western part of the county and the hills around the Shasta Valley—operated without local cannabis regulation, in line with locally held values of property rights, independence, and limited government involvement. Larger scale cultivators sometimes grew on Siskiyou’s public lands, with significant potential impact on streamflows, wildlife, and other environmental impacts without monitoring or regulation of their cultivation practices.

In 2014, the county’s planning division engaged in a lengthy public feedback process, which included public meetings across the county, to design the county’s first medical marijuana ordinance. That ordinance, which the board of supervisors approved in April 2015, allowed medical cultivation (a limited number of plants dependent on parcel size), placed conditions like property setbacks, and would establish an administrative abatement and hearing process through the planning division for complaints (Siskiyou County Ordinance 15-04). The planning division, however, had limited capacity—just one code enforcement officer at the time. According to a person involved in local government at the time, the sheriff and district attorney were eager for a full ban and limited their assistance in enforcing the lenient ordinance to “encourage complaints that would overwhelm the planning division so that the board of supervisors would pass a full ban and place enforcement with the sheriff,” they said. Informants described the sheriff making regular guest appearances on the local country music station to encourage residents to call in cannabis complaints. Soon, cannabis cultivation complaints, bolstered by several reports from the sheriff’s office on the “proliferation” of cannabis cultivation on private property, overwhelmed the planning division’s limited capacity (Siskiyou County Sheriff’s Office 2015).

After just one season, the county’s approach to regulating cannabis cultivation changed sharply, with power and resources shifting to the sheriff’s office, followed by a countywide ban on all outdoor cultivation in December 2015 (Siskiyou County Ordinance 15-18). Multiple informants pointed to the irony of this neo-prohibitionist approach in a place known for promoting personal liberties and market liberalism, as well as concerns that such a poorly resourced county has since dedicated a significant amount of governing capacity and resources to stop the “#1 public enemy to Siskiyou citizens—criminal marijuana cultivation” (SCSO 2016). The reasons had partly to do with a lack of planning department resources and funding, as well as an enterprising sheriff. A major coinciding factor was the shifting profile of cultivators from white locals to in-migrant Hmong Americans, and the shifting geography of cultivation from remote areas into Siskiyou’s large rural subdivisions more centrally located in the county. This land was cheap, with little infrastructure and no public services like paved roads, electricity, sewer, or water.

The county is home to four large, nearly empty rural subdivisions, which had been established before the 1974 passage of the Subdivision Map Act (Ca. Code 66410 et seq.) that now requires local approvals and public improvements and uses, such as sidewalks and parks. Each subdivision had more than a thousand one- to two--acre parcels. These remote subdivisions were unsupported by city services (or any city nearby, for that matter) and parcels were connected by a grid of dirt roads bulldozed into sparsely vegetated and rocky slopes in remote areas. Since their formation in the 1960s, landless people had occupied some parcels periodically, and only a few parcels had been sold. One long-time white subdivision resident described buying his plot in the early 2000s on eBay for about \$8,000; another resident claimed he bought his 2.5-acre plot in 2013 for \$4,500; a Hmong American man described paying \$3,000 for his around the same time.

As Hmong American residents began moving to the subdivisions, which the county noted in 2014 and 2015, the prices of parcels rose rapidly. According to county tax records and interviews with real estate agents, in 2015 one- to two-acre plots were selling for around \$20,000 (a price already double what several Hmong elders told me they had paid in 2014). By 2016 and 2017, lot prices were routinely \$50,000 to \$60,000. In 2020 and 2021, the height of the pandemic-fueled cannabis market, growers reported parcels selling for over \$200,000.

According to those we interviewed, many initial Hmong American in-migrants were refugees and veterans of the US' secret war with Vietnam and had retired from manual labor jobs like farm work in the Fresno, California area, or assembly lines in St. Paul, Minnesota. Retirees described (often through a Hmong interpreter) their version of the American dream—to own their own property, return to agrarian roots that would allow them to be self-sufficient and grow their own food and medicine, and to spend their final years in natural beauty, surrounded by mountains and in community. The affordable and densely packed, largely empty subdivision parcels with sweeping views of Mount Shasta promised an affordable agrarian retirement in the company of friends and family. Many Hmong American residents we spoke to said that they raised goats and chickens and grew tomatoes, ginger, and bitter melons, as well as cannabis. As Hmong American farmers were moving to Siskiyou, the legal status of cannabis at both the state and local level was changing quickly (Polson and Petersen-Rockney 2019).

Hmong elders, many of them veterans of the same Vietnam War that white cultivators in Siskiyou had fought in, described using cannabis medicinally to ease anxiety and depression, for pain relief of conditions like arthritis and gout, and injuries from war and repetitive work injuries. Some described being wary of institutionalized Western medicine and how cannabis fit into deeply rooted ethnobotanical histories of relationships with a wide range of medicinal plants. A retired Hmong American vegetable farmer from Fresno, California described his use of cannabis steam baths and teas to soothe aches and pains from a career spent as a small-scale market farmer. “I found refuge in this plant that would help us, give us freedom again,” he said. People also relied on cannabis to support their economic livelihoods. Some described sending money to Wisconsin or Minnesota to help pay for their children or their grandchildren to go to college, some described trying to build a “nest egg” for the future, some described wanting to rise in economic class, and others described selling their extra harvest to make enough money to buy gas, groceries, and supplies for the next season. Most people told us that they could earn enough to cover their low cost of living in the subdivisions by growing ninety-nine plants. Many Hmong American growers described farming as both a skill they held and a lifestyle that afforded them freedom and flexibility. One Hmong American woman said of farming, “It’s very therapeutic, you are in control of everything.” Several growers described leaving jobs as janitors or security guards where they made minimum wage and had limited vacation time. Farming, they said, was “more relaxing” with more “freedom to visit friends and family.” One Hmong American grower described the quiet pleasure of opening a Coke and hearing “every last bubble of fizz” and “waking up in the morning and hearing birds and chickens,” an especially powerful reminiscence of a childhood in Laos at this time in his life. Nearly every Hmong elder we interviewed expressed a desire to retire on their land in Siskiyou and a sense of being a landless people, as one older Hmong cultivator said, “My entire life I was born into conflict, searching for a home to make permanent. It is so sad that I am still driven out from my home, I’m always forced to flee with violence.”

There are few crops that a person could earn a livelihood from growing on an acre of dry, steep, rocky land with no surface or groundwater access. One Hmong American cannabis farmer emphasized that she had “bought useless land, where the soil quality is zero. [We] bought all this crappy land and then made the local economy boom.” Another Hmong American cannabis farmer described how “our people are good at farming. We try to make a living farming. [This] land is not good, you can’t do anything besides growing marijuana. [The] farmers, they live here because they have nothing.” A young Hmong American woman who did not grow cannabis herself, described the difficulty of finding wage work in Siskiyou, she also sympathized with elders who grew cannabis, saying, “They have no education and now want to retire, but they have no 401K, what else are they going to do?” Illicit livelihood strategies often prove especially important for populations which have limited education and English proficiency, experience poverty, or face exclusion from local economic opportunities.

Not the first residents of Siskiyou to grow cannabis as a livelihood strategy, Hmong American cultivators and white medical growers began advocating for cultivation guidelines that would allow them to grow legally in 2014. According to interviews, social media posts, and board of supervisor meetings, together, they formed a group called Siskiyou Alternative Medicine (SAM), which mobilized growers to attend local board of supervisor meetings and other public forums. When the board of supervisors met in December 2015 to ban outdoor medical cultivation and shift enforcement capacities from the planning division to the sheriff’s office, SAM organized cultivators and medical advocates to attend (SCBOS Minutes December 8, 2015). Advocating against the ordinance, they presented a petition with 1,500 signatures. When the supervisors asked for a show of hands (asking separately for “residents” and “Hmong” to raise their hands), 110 attendees indicated opposition; six indicated support (SCBOS Minutes December 8, 2015). After more than three hours of public comment, most opposing the ordinance, supervisors voted to pass the restrictive measures. Within seventeen days, SAM collected 4,000 signatures to place the ordinances on the June 2016 ballot (Polson and Petersen-Rockney 2019).

SAM then led a voter registration campaign, helping new residents, including those with limited English, register to vote (Polson and Petersen-Rockney 2019). Two days before the 2016 vote, state investigators responded to county reports of potentially fraudulent voter registrations (with only eighteen Hmong last names in use in Siskiyou County, many voter registrations had similar names) (Moriarty 2016). Sheriff’s deputies accompanied the state investigators, visiting Hmong American residences with, many reported, guns drawn, resulting in a lawsuit against the county government that alleged racially motivated voter intimidation; this suit was eventually dismissed for failing to meet the notoriously difficult criteria of racist intent. Amidst these now-overt racial tensions, the ballot passed, banning outdoor growing, placing new restrictions on indoor growing, heightening penalties for code violations, and allowing the sheriff’s office to gain full enforcement power (Siskiyou Ordinance 17-11).

November 2016 was also when Proposition 64 passed, regulating adult use supply chains for the first time. Siskiyou residents voted to approve Proposition 64. This prompted Siskiyou’s local government to examine a possible licensure and taxation system for cultivation (Siskiyou County 2017a), but the proposal stalled due to the sheriff’s insistence that legalization was “just a shield that protects illegal marijuana,” as well as several local scandals. A proponent of legalization

was, it turned out, operating an unauthorized grow; three Hmong Americans residents died of carbon monoxide poisoning that winter due to heaters in substandard housing; and a cannabis grower attempted to bribe the sheriff. These developments gave fodder to the need, as one board supervisor said, to “get a handle on the illegal side of things” before regulation could be possible.

In 2017, the sheriff estimated that 6,000 Hmong Americans had moved to Siskiyou since the mid-2010s, purchasing approximately 1,500 parcels (St. John 2017) and outnumbering non-cannabis farmers by a factor of more than two to one (St. John 2017; Siskiyou County 2017a; USDA 2017). With new local control capacities granted under Proposition 64, the board of supervisors placed a moratorium on all cannabis commerce in August 2017 and, in September declared “local state of emergency,” citing the sheriff’s assertions of an “overwhelming number of cannabis cultivation sites,” that continued to wreak “havoc [with] potentially catastrophic impacts” (SCSO 2017a). The emergency measure enabled the county to harness federal resources to “attack” the “out-of-control problem” of “nearly universal non-compliance” (SCSO 2017b), a situation of the board’s own making, since compliance with local regulations to grow 12 plants for medical personal use (an allowance protected at the state level) was nearly impossible.⁵ Over the following year, the county board of supervisors extended, and then (in 2018) made permanent the emergency ban, citing cannabis cultivation’s “degradation of the natural environment” (Ordinance 18-05, 2018). The emergency ban also allowed the sheriff’s office to enlist outside state and federal agencies like the National Guard, CAL FIRE, and California Highway Patrol in enforcement efforts, and, by 2018, other state agencies joined, including the California Department of Toxic Substances Control, the State Water Resources Control Board (SWRCB), the California Department of Fish and Wildlife (CDFW), and even the California Department of Food and Agriculture’s Siskiyou County inspection site, the Hornbrook Border Station. These alliances multiplied civil and criminal charges cultivators could face and opened the possibility to cite cannabis growers with felony charges for California Fish and Game Code violations. Yet some of these agencies also provided a different enforcement model. For example, growers reported that CDFW and the SWRCB would provide growers with photos of code violations, and give them a period to fix what was wrong in the pictures before imposing fines; the county-imposed fines immediately.

The sheriff also enrolled local residents in enforcement efforts. Investigations were “complaint-driven,” meaning not only that law enforcement officers could take “proactive action” when they spotted code violations, but that warrants could be issued in response to complaints made by neighbors and other residents (SCSO 2015). One group of primarily white residents in one of the subdivisions described themselves to us in interviews as “a very vigilante group.” They described patrolling the subdivision on horseback and peering over fences into Hmong American neighbors’ yards in order to report violations to the sheriff. One member of that group said, “We’ve nurtured a relationship with law enforcement,” and another told us, “We’re very blessed to have [the sheriff], he’s one of the first who backed us.” Another vigilante group member described the sheriff conducting gun training lessons for them, adding, “And we do carry.”

⁵ Cultivators estimated that to grow twelve indoor plants for personal medical use (a statewide allowance under Prop. 64 that localities cannot outright ban) would cost between \$40,000 and \$100,000 in order to construct the physical infrastructure required by the county to get a personal medical license, something county officials said not a single person had successfully done.

In the sparsely vegetated hills of the subdivisions and their densely located small plots, unpermitted greenhouses, portable toilets, and plywood or RV housing, as well as water tanks and screen fencing, signaled cannabis cultivation and associated code violations. Since complaints depend on visibility, racialized growers on small barren plots close together were made particularly visible by public and policy discourse and vulnerable to enforcement (Polson and Petersen-Rockney 2019). Enforcement practices, policy forums, and media discourses made Hmong American residents highly visible representatives of the cannabis cultivation “problem” (Polson and Petersen-Rockney 2019) that the county framed as a threat to “our way of life, quality of life, and the health and safety of our children and grandchildren” (SCSO 2016).

County officials and white residents employed anti-Asian tropes, characterizing Asian American residents as “dirty,” “hav[ing] diseases,” “taking advantage,” “sneaky,” “stealing,” and “untrustworthy.” At board of supervisor meetings attendees asserted “These people are not residents,” and they “need to learn to speak English,” among other racially coded language. Numerous sheriff’s office press releases located the “problem” in subdivisions and attributed this to “an influx of people temporarily moving to Siskiyou,” (SCSO 2015) who were “lawbreakers,” from “crime families” with “big money” (SCSO 2016). Although increasingly punitive policies regarding cannabis and related activities (such as the county’s ban on extended camping on one’s own property) did not publicly name race as a contributing factor, enforcement strategies produced significant racial disparities. Since 2016, three civil rights lawsuits have been brought against the Siskiyou county government for racial animus against Asian and Asian American residents.

The sheriff’s office took several key actions in attempts to dissuade growing perceptions of racially biased county enforcement. Residents in the far western mountains of the county reported that, after the restrictive ballot initiative passed in 2016, the sheriff’s office conducted a large raid in the town of Happy Camp. One former grower, who was white, said, “they only came here to show that they bust some white guys too.” Echoing what multiple Happy Camp residents shared, a former grower described the terror that day as law enforcement “came with a stack of warrants that had blank spaces for them to fill in the names and addresses where they raided as they went. So they could just hit people as they drove around. No one was charged for anything during that raid, they were just beat up and had their plants chopped.” White growers and former growers we interviewed in Happy Camp described a violent and chaotic scene in which beatings led to one cultivator’s jaw being broken and another permanently losing hearing in one ear. One older woman told us that she was forced to kneel on gravel during the duration of the raid on her property. No one filed official reports of these purported beatings, or went to the hospital that day. Some described being glad they had not been cited and did not want to risk further legal trouble and this was not a situation where cultivators could call the police for help. Though not corroborated in the public record, these reports demonstrate the fear that punishment-forward enforcement actions can instill (box 1), and how bans create spaces where other crimes can flourish.

Box 1. Raid Experiences

Severe or hard enforcement strategies, such as raids and large, immediate fines, do not give cultivators the opportunity to fix an issue or learn. Many cultivators experience such approaches as punishment, missing opportunities for pedagogy. We identified four primary consequences of hard enforcement. The first is that growers adapt by growing more intensively and on more parcels to spread risk. The second is that hard enforcement approaches like raids often produce their own environmental harms with no support for remediation. Third, these approaches raise equity issues, since many cultivators in unpermitted markets cannot access legal markets because of the costs of permitting or simply living in ban jurisdictions. Fourth, hard enforcement exacerbates fear and distrust of government, making regulation more difficult if not impossible.

Siskiyou County has taken a hard enforcement approach, leveraging immediate and large cannabis related fines, enrolling state agencies like CDFW in enforcement efforts, passing ordinances to restrict access to resources like water for communities the county associates with cannabis cultivation, and conducting raids on properties suspected of housing cannabis plants.

Residents of Siskiyou County who have been raided, or who knew people who have been raided, described these experiences as instilling fear. A Hmong American man who drives a water truck and makes water deliveries to people without wells in one of the county's large rural subdivisions described to us what happens during a raid. "Chopping everything, bulldoz[ing] greenhouses like a tornado. [Law enforcement] leaves trash, no cleanup," which, he said, forces "people just to leave and cut their losses or try to sell [their land]." Another Hmong American grower described how law enforcement might arrive in a convoy of fifteen or more vehicles, some with their licenses covered (which residents took as evidence of vigilante volunteers assisting law enforcement), at 9 a.m. and call for a warrant to begin the raid by 9:30 a.m. Others described law enforcement actions that would begin at one property and then, as one grower described, would "steamroll through several adjoining ones since they spot reasons to go on. They cut down everything."

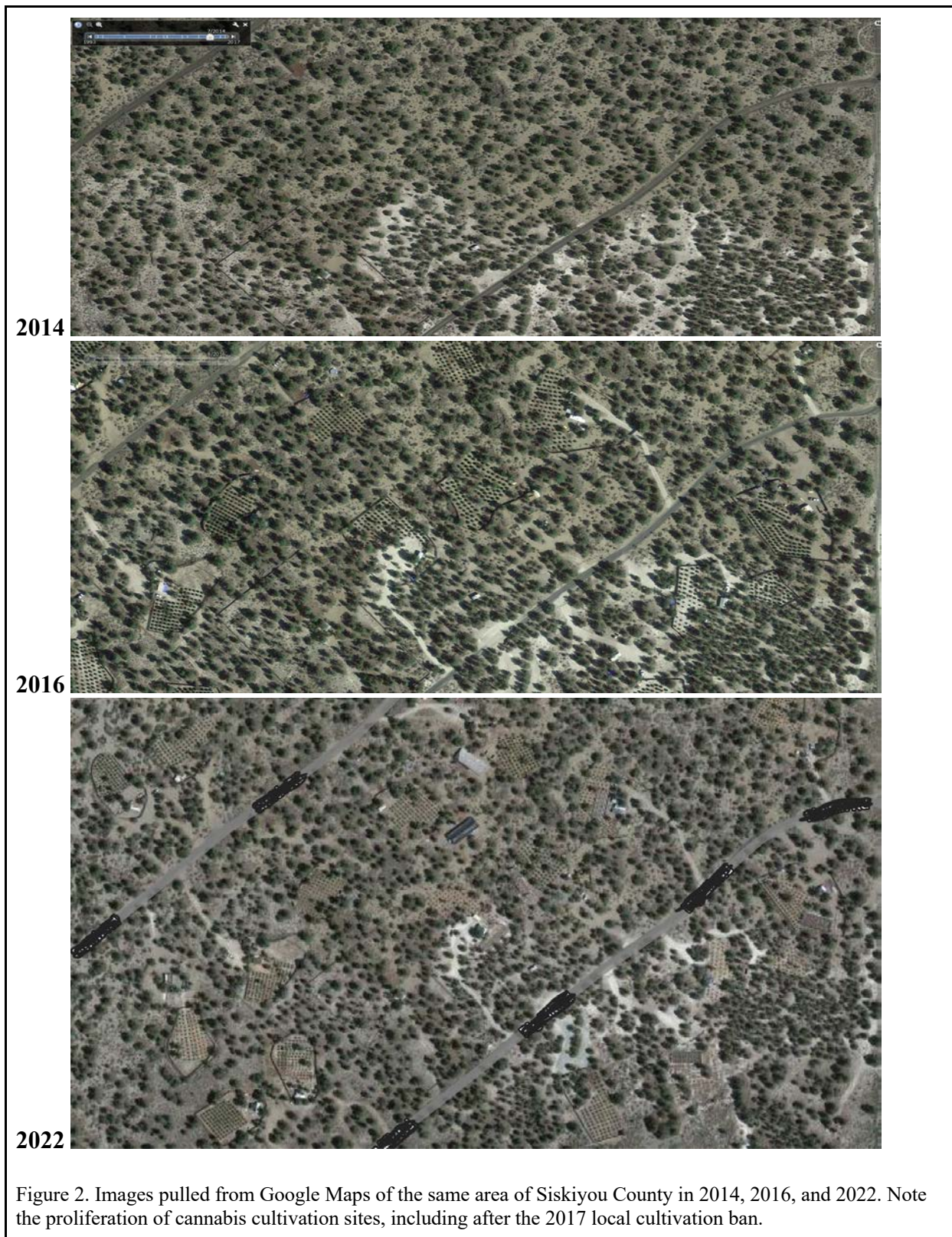
People who lived in the subdivision, most of them Hmong, described law enforcement breaking their gates, towing their vehicles, cutting their plants, and destroying or taking infrastructure like generators, sheds, and water tanks. Some described threats and beatings from enforcement personnel. Others described such thorough property destruction that they returned to their homes to find their personal belongings dumped out of drawers and their toothpaste tubes emptied. Several residents described law enforcement putting detergent in their water tanks during raids; many described routine drone flyovers. One older Hmong American woman described the experience of being raided in 2017, saying that she was handcuffed while law enforcement chopped her sixty plants, representing a season's investment, and then destroyed the shed where she lived. She then added that this was, "Not as gruesome as later raids have become." When we asked her what she meant, she said, "They were not as mean. [Now] they assault you and arrest you and point guns at you."

Growers in Siskiyou County also described community support associated with raids. One older Hmong American grower said that, "During raids they bulldoze greenhouses, rip up

plants, destroy it all. You were lucky if [law enforcement] didn't come because they'd treat you like an animal. One year when my plants were chopped, other growers gave me medicine and helped me out." Another Hmong American grower, who had been injured while working at a meat processing factory in the Fresno region and described persistent pain from the incident, said "It's not like I'm growing thousands of plants, just enough for myself." Another Hmong American grower told us that she knows cannabis cultivation is not allowed here, but she asked us, "It's not just the Hmong who grow, white people grow and have been growing for much longer. Why are the Hmong harassed?"

In attempts to manage growing public perception of racial bias, the sheriff's office also held the first Hmong American and Siskiyou County Leader Town Hall in May 2018 to "foster a closer, collaborative relationship with members of the Hmong American community," exchange information about Hmong and Siskiyou culture, and educate attendees on county policies (SCSO 2018). When racial tensions surfaced (white participants expressed feelings that "our county" had been "invaded"), meeting facilitators framed tensions as "cultural misunderstandings," which overlooked the ways neo-prohibition created these divisive dynamics (Polson and Petersen-Rockney 2019). In a further effort to work with the Hmong community, Siskiyou County soon hired its first Hmong American sheriff's deputy.

Yet despite the various tools and strategies Siskiyou County imposed to eradicate cannabis cultivation, the crop continued to grow each year (figure 2, Google images of cultivation expansion), spurring local leaders to harness growing anxieties of drought and wildfire to expand categories of environmental crime.



Portraying cannabis cultivation as environmentally polluting and requiring intervention is not new. Polson (2019) argues that enforcement and eradication efforts focused on environmental

harms is an extension of “prohibition’s history of marking people and substances as socially polluting” (246). Cannabis cultivation often does produce negative environmental harms, as do eradication efforts. Proposition 64 promised civil regulation of environmental impacts, including greater oversight of, and even technical and financial assistance for, cannabis farmers. This civil regulatory opportunity has largely been missed, however, as rural localities like Siskiyou County have harnessed environmental harm narratives and growing drought anxieties to re-ban cannabis cultivation, which often forces cultivators to move to more remote, and often ecologically sensitive, land (Dillis et al. 2024a).

After several decades spent vocally fighting *against* environmental regulations, including petitioning the federal government to eliminate the Endangered Species Act protections (SCBOS Letter to Bridget Fahey 2018), the county government uncharacteristically championed environmental protection, asserting that “marijuana is an environmental tragedy in the making” (interview with Sheriff Lopey 2019). When we asked the former sheriff about cannabis in an interview in 2019, he echoed what other officials had told us, equating cannabis and those who grow it to environmental change and crisis, saying that, “Just like a ravaging forest fire, it’s burned through our county, causing irrefutable harm. [The] environment is literally being destroyed.” County law enforcement officials emphasized the “environmental damage inflicted by growers, including downed trees, garbage, raw sewage, illegal water diversions, chemicals and fertilizers used in cultivation sites, and other adverse impacts,” and specifically emphasized wildfire risks by stating that “illegal campfires on land parcels have been detected along with a number of fire hazards associated with debris piles, fuels, and hazardous substances” (SCSO 2016).

“Taking land,” “water restrictions,” and “water trucks” were the mechanisms the current Siskiyou County Sheriff, Jeremiah LaRue, told local reporters he was championing to address the “community problem” of marijuana allegedly grown by “Hmong” and “Chinese cartel” growers, according to a 2020 Facebook post on the Siskiyou County Sheriff’s Office Facebook page (*Chang et al.*, 34). During the interview process for his hire in late 2019, LaRue responded to a question about “how to handle this darn illegal cannabis” (as one board supervisor phrased it) by stating that eradicating cannabis should be a top priority for county leaders. “I think the honest approach is looking at the water. It may sound simplistic that if you get rid of water you get rid of the plants, but groundwater has been depleted,” LaRue said, “Honestly, we need to start capping wells due to illegal use. That would really drop the number of plants” (Shelton 2020). The board of supervisors voted unanimously to appoint LaRue, the most junior candidate, to sheriff, a choice driven, media coverage suggested, by his proposed approach to eradicating cannabis and the people the county had associated with the “problem” (Shelton 2020).

In 2020, the board of supervisors approved an ordinance that increased fines for growing cannabis from \$500 to \$5,000 per day, imposed those fines immediately with no period for growers to address the citation, and multiplied fines for other code violations—such as unpermitted buildings or water tanks—on a property if cannabis was present (Ordinance No. 20-11, Siskiyou County Code section 10-14.100).⁶ That change to county code also gave the county

⁶ Cannabis cultivation fines could also be “stacked.” Cultivators often received separate citations for each: cultivating more than twelve plants, cultivating without a residence, cultivating outdoors, cultivating in an unsecured structure, and cultivating without a fence or gate.

authority to issue real property liens if the landowner did not pay those fines in ninety days (Ordinance No. 20-11, Siskiyou County Code section 10-14.100). In the meeting in which the board adopted Ordinance no. 20-11, one supervisor encouraged the county to “not be afraid to foreclose on the properties... If the fines are high enough then the growers won’t be able to purchase the properties” (SCBOS Minutes June 16, 2020). The fines issued under Ordinance 20-11 often amounted to more than a property was worth.

When the board of supervisors issued the first ten liens for unpaid cannabis-related fines on January 19, 2021, all were on property owned by Asian Americans. During 2021, the county placed a total of fifty-two property liens, over 88 percent were against Asian American landowners.⁷ One of those property owners was Susanna Va, who became a plaintiff in the ACLU’s class action lawsuit against the Siskiyou County government (Chang et al. v. County of Siskiyou and Sheriff Jeremiah LaRue (2:22-cv-01378-KJM-AC (E. D. Cal. 2022))). In 2020, Va moved to Siskiyou County from North Carolina with the hope of retiring in California. The property she purchased had an assessed value of \$23,460 and no water well (APN 003-650-270). Va hired a well driller who did not inform her that she needed a permit for the well. When she found a letter from the county posted to her gate in February 2020, she quickly (with the aid of a relative who interpreted for her) made an appointment with the county to inspect her property as the letter instructed. The code inspector arrived with several sheriff’s deputies and cited Va for a range of code violations on her property, including the unpermitted well and small cannabis seedlings. In addition to having to close the well and destroy the seedlings, the county issued Va \$28,000 of fines, more than her property’s value. Va attended abatement hearings, at which the county did not provide an interpreter, and tried to explain that, after paying for the well’s construction and now closure, she did not have the funds to pay the fines. The county did not reduce the fines and, in October of 2021, placed a lien against Va’s property. Without the ability to pay, and with no water access, Va, like others we spoke to in similar situations, was forced to leave Siskiyou.

One Hmong American elder described how, “People are migrating here because they hear that it is nice to live here... People invest all they have, then the county fines them each day, and then the fines are worth more than the value of the land and people leave and the county can just resell it...The county seizes their land... then the county auctions it off.” He described how “In a couple months you can easily owe \$100,000 for having a house that isn’t permitted maybe and some electric cords they don’t like or other things like that that you need to live, even a swimming pool to hold water.” One local resident, sympathetic to the Asian American community, said, “I see plenty of code violations on white people's property, but they don't get in trouble.”

⁷ The county placed fifty-two liens against forty different property owners. Of those, thirty-seven property owners had common surnames (accounting for forty-nine properties), of which 88.8 percent were Asian and Pacific Island (API) surnames. The aggregated application program interface probability of those forty-nine liens is 40.6 percent. Removing those without a common surname (three property owners) from the sample reduces the race adjustment to 76.9 percent of liens against API property owners. Importantly, many common Hmong last names, such as Lee, have a relatively low API probability (e.g., Lee is 42.22 percent), meaning that these estimates based on US Census data likely underestimate these populations.

Stoking water anxieties during a climate-induced drought proved a coalition-building strategy for the county. White residents who were normally across the political aisle from each other formed an unlikely political alliance against water use for cannabis. According to interviews, residential residents were worried about their wells going dry; environmentalists were worried about water for fish and other wildlife; local religious groups were worried about the influence of drugs on their children; and self-described conservative activists were worried about crime and racially coded “cartels.” As August 2020 brought little rain, lots of heat, and the ongoing COVID-19 pandemic, some residents expressed a sense to county officials we spoke to that the county was not doing enough to stop water use for cannabis cultivation. About a dozen residential wells in Shasta Valley went dry (Kinkade 2020), and local leaders encouraged the idea that cannabis farmers were the cause. Though unsupported by hydrologic science, the sheriff told residents that his previous estimate that cannabis growers in the county were using three million gallons of water a day was an underestimate; he claimed, instead, that the amount was likely closer to 9.6 million gallons per day (Kinkade 2020). Mostly white residents staged protests on the roads that lead into the Mount Shasta Vista subdivision. Protestors wore masks to protect from COVID-19 and hats to protect from the harsh sun (tie dye, Vietnam veteran, Catholic church, and environmental group hats could be spotted in the crowd) (Kinkade 2020). As the occasional water trucks drove in or out of the subdivision, protestors waved hand-painted signs with slogans like “Water for life, not for profit” and “Stop trucks that support illegal pot growers” (Kinkade 2020). A protestor told local reporters that, “This is about illegal, organized criminal grows that are taking money out of Siskiyou County and the greedy people selling them water” (Kinkade 2020). Talking about the subdivision residents, another protestor said that people like him “are suffering injury because of these people reducing the water table by sucking the underground basins dry” (Kinkade 2020).

While cannabis cultivation is a newly visible, and often unwelcome, water user in an already water-scarce California landscape, multiple informants pointed out that its *relative* use of water for cannabis cultivation is, as one alfalfa farmer phrased it, “a drop in the bucket” compared to water use in the county to grow alfalfa, much of it, according to farmers, exported to dairy farms in California’s Central Valley, or abroad to desert countries like the United Arab Emirates. That farmer said that each truckload of alfalfa he sells carries away a harvest that requires the equivalent of 678 water trucks worth of water, and he sells a lot of truckloads of alfalfa. An alfalfa farmer that the county sued for selling water to subdivision residents, Steve Griset, said publicly that during the growing season he typically uses about six million gallons of water each day to irrigate his alfalfa fields (Hamilton 2021).⁸ At the most, Griset said that he was selling 350,000 gallons of water to the subdivision residents each day (Hamilton 2021), which was about 5 percent of his total daily water use. Each water truck going into the subdivision was filled with about 4,000 gallons of water, enough to supply the average American family with residential water for just under two weeks (according to the US Environmental Protection Agency (EPA), the average US family uses 300 gallons of water per day—see EPA 2022).

In 2020, county officials asked the State Water Resources Control Board to conduct a review on cannabis’ impact on the region’s water, which, according to interviewees, revealed that water truck movement and water use for cannabis had a negligible impact on both surface and

⁸ While Griset was the primary water supplier for the residents of Mount Shasta Vista, he was by no means the largest alfalfa farmer in the county.

groundwater in the region, especially compared to other agricultural water use. A county official explicitly told reporters that water ordinances that targeted cannabis cultivation were “not designed to protect the aquifer, or the groundwater” (Sabalow 2021). On August 4, 2020, under the sheriff’s guidance, the county went forward with passing an ordinance designated urgent, and therefore free from public comment and other usual procedures for county code amendments, that banned “extracting and discharging groundwater underlying Siskiyou County for use in cultivating Cannabis” (Urgency Ordinance 20-13 and later Ordinance 20-15, codified at Siskiyou County Code section 3-13-702). The ordinance language stated that using groundwater to cultivate cannabis “constitutes the waste and/or unreasonable use of groundwater, and is a public nuisance and a threat to the public” (Urgency Ordinance 20-13 and later Ordinance 20-15, codified at Siskiyou County Code section 3-13-702). The ordinance did not require evidence that the well owner knew that the water from their well was used to grow cannabis, creating a wide opportunity for enforcement discretion against anyone the county thought might be selling or using water for cannabis, even if the county lacked evidence. With no municipal water services, people with access to wells suddenly faced a \$5,000 fine for watering their gardens (Siskiyou County Code section 3-13-702) and 68 percent of citations under the ordinance were given to Asian American residents (*Chang et al.*). But most subdivision residents did not have their own wells. They relied on a few local landowners who had deep agricultural wells and sold water, delivered by water trucks, to subdivision residents. The Siskiyou County District Attorney used the new ordinance (Siskiyou County Code section 3-13-702) to sue a local alfalfa farmer who had previously sold water to the subdivisions, Steve Griset, who, after the lawsuit, could no longer sell water to his neighbors in the Mount Shasta Vista subdivision (box 2).

Box 2. Siskiyou County Utilizes SGMA to Restrict Water Availability for Cannabis

On September 28, 2020, as temperatures climbed to over ninety degrees Fahrenheit, the district attorneys for Siskiyou County filed a lawsuit, on behalf of the people of California, against one of the alfalfa farmers who was selling water to people who live in the Mount Shasta Vista rural subdivision (*People of the State of California v. Griset et al. CVCV 20-00810 (Cal. 2020)*). The county’s arguments against the farmer, Steve Griset, rested on four categories of violation. First, the county’s attorneys argued that Griset was violating zoning ordinances that prohibit commercial farm activity on site. The second violation was of recently passed local groundwater ordinances that prohibited the use of groundwater in the county for cannabis cultivation. Third, the county charged the activity as a public nuisance, a legal maneuver deployed against almost any activity county officials did not like. Finally, officials in this staunchly pro-business county claimed this particular sale of water constituted unlawful and unfair business competition. The county sought to fine Griset \$1,000 per incident under one ordinance, and \$5,000 per incident under another ordinance. An “incident” was defined by Siskiyou County prosecutors as one water truck filling from Griset’s irrigation station. The county alleged that he filled forty trucks each day, which would result in a \$240,000 fine per day, plus an additional \$2,500 fine per day for the nebulously argued claim of “unfair business competition” (*California v. Griset*).

The county’s logic seems to have been simple. Officials asserted that cannabis is a water-intensive plant, that Hmong American residents living in the subdivisions were all growing

cannabis, and that wells in the valley were going dry (Kinkade 2021). One elected official asserted that there “are anywhere from 4,000 to 8,000 people out here that grow cannabis illegally” (Carroll 2022). Therefore, the county drew a direct causal link between cannabis cultivation—specifically, cannabis being grown in the Mount Shasta Vista subdivision, where the majority of residents were Hmong American—and the valley's water problems.

Hydrologists from the University of California, Davis and elsewhere, who had been collecting data on groundwater in the valley, said in interviews that it was not possible to draw this direct line of causation. The numbers in the lawsuit, hydrologists told a local reporter, did not “pencil out” (Whitcomb 2021). More than six months after the lawsuit had been filed, scientists working on groundwater issues for the county told us that they knew nothing of the lawsuit and had not been consulted during the lawsuit process. The district attorneys ignored the scientific evidence that was emerging and, instead, relied on estimates of cannabis cultivation and associated water use provided by the sheriff's office. The lawsuit emphasized estimates that water trucks were drawing three million gallons of groundwater a day for deliveries to grow cannabis (*California v. Griset*). It is unclear what data the sheriff used to estimate these numbers, which exaggerate peer-reviewed estimates of cannabis' water needs, and the lawsuit failed to contextualize this number (Dillis et al. 2024b). A quick back-of-the-envelope calculation, based on the county's own crop data, suggests that over 400 million gallons of water are used each day to irrigate alfalfa in Siskiyou County (Smith 2022).

Griset is one of several large-scale alfalfa farmers who had moved their operations from the Central Valley to Siskiyou County during the 2014 drought (Petersen-Rockney, in progress). During the same time period, many local ranchers had transitioned their land from extensive cattle range to intensively irrigated alfalfa, as the cattle market declined and the export alfalfa market proved more lucrative (Petersen-Rockney, in progress).

Griset's farm neighbors one of Siskiyou County's large rural subdivisions, where several thousand people live, primarily on small plots without access to water. According to interviewees, the subdivision residents, the majority of them Hmong American, have to buy water by the truckload. Interviewees noted that until the county sent cease-and-desist letters in 2020, several large farmers in the region were selling water from their deep agricultural wells to subdivision residents. In addition to a letter telling him to stop selling water, Griset also learned that the county had filed a lawsuit against him (*California v. Griset*).

Having moved to the region at around the same time as nearby subdivision residents, a local alfalfa farmer pointed out to us that these neighbors cannot drill wells because of shallow bedrock and arsenic in the soil, and he has “a very big well.” While this farmer asserted that his sale of water was not generosity-motivated, but just what “any good farmer, any good businessman would do,” he also expressed anger at the way the county was, as he put it, “racially targeting” his Hmong American neighbors. After the lawsuit against Griset was filed and he was forced to stop filling water trucks, this farmer said that some days he feels so frustrated with the county that he wants to open his pumps and put out a big sign reading “Free Water for Free People.” He does not care what his neighbors do with the water—even if some grow pot. “What does it matter?” the farmer asked us, noting that cannabis is a legal crop in the state of California, just like his alfalfa.

People familiar with the case said that Griset felt the county was trying to keep the lawsuit under wraps and he was eager to talk. Griset had approached the local newspaper, according to residents, and asked staff to write about the lawsuit, but they had declined. It had been six months since the lawsuit was filed when we spoke in 2021, and the story had not been covered by local newspapers. Referring to the county government, an alfalfa farmer we spoke to said, “They tried to use us to do their job by shutting off water to thousands and thousands of people. And these people are like the rest of us. They have livestock, they wash their dishes, and they take baths. Water is essential to life. I felt the county should have let them know they’re planning on shutting off their water. Instead, they sued me and expected me to shut off the water to thousands of people overnight.” The lawsuit does not mention domestic use (*California v. Griset*), despite the county’s own estimates that between 4,000 and 8,000 people live in the subdivision (Carroll 2022), the vast majority with no other option for accessing water aside from trucks filled from alfalfa farmers’ wells. A local alfalfa farmer said that the science was on Griset’s side. He also said that he knew how much water the subdivision residents were using, and called the county’s claim that cannabis was drying neighboring wells “bullshit.”

According to lawyers familiar with the case, the district attorneys made an unusual legal play with their decision to use the Sustainable Groundwater Management Act (SGMA)—a law that would not technically take effect for another year—to bolster their argument. They claimed that the local county government had the authority to manage the region’s groundwater as it saw fit. The SGMA required the Shasta Valley Groundwater Authority (SVGA), primarily populated by county supervisors and other local officials, to identify ways to cut groundwater pumping. The authority had only one year to determine how the region would meet groundwater use reduction targets set by the state. Shortly before the lawsuit was filed, the SVGA met (on January 27, 2021) and brainstormed eight management actions that it could take to reduce groundwater use in the basin. The authority linked two of these actions to cannabis—“Big Springs pumping” and “illegal cannabis impacts.” By inflating the scale of water use for cannabis, then eradicating cannabis, the county could record groundwater use reductions without having to require traditional irrigators, like alfalfa farmers, to reduce their groundwater use. Denying the communities in the rural subdivisions access to water could also facilitate the county’s goals to eliminate what officials called the “out-of-control problem associated with illegal marijuana cultivation” (SCSO 2016; Polson and Petersen-Rockney 2019).

Losing access to Griset’s well toward the end of the 2020 growing season, some subdivision residents found other sources. Cannabis farmers told us that, without water, they harvested their crop early. But cannabis plants were not the only living things that used water. In interviews Hmong American farmers often became visibly emotional as they described pets and livestock dying without water to drink. One older Hmong American man, who had been a vegetable grower near Fresno before retiring in Siskiyou, showed us pictures from 2020 of his dead chickens that he said had died because he could not get water for them. Crying, he described how many people who live in the subdivisions are in their 70s, “There’s not [a] long time to live,” he said. He said he wants peace to live out the remainder of his life where he has purchased land in Siskiyou. Referencing the Vietnam war, he said, “We sacrificed so many lives just to be

persecuted... Our entire lives we have been chased from one land to another with no ability to call anywhere home.” A subdivision resident and one of the leaders of the Hmong community said, “Without water we can’t live, we can’t water our livestock, we’ll be forced to leave.” Without water to drink and bathe, many people said they had little choice but to leave their land and spend the fall and winter with family and friends in cities like Minneapolis/St. Paul and Fresno. According to residents, about a third of people who lived in the subdivisions did not return to their land the following spring, but other people did, hoping they would be able to access water.

The next spring, with pressure from some local residents and guidance from the sheriff, the Siskiyou County Board of Supervisors voted to pass two more water ordinances on May 4, 2021. One was a water extraction ordinance, which set a permit requirement for anyone to transport water off of the parcel where it was extracted or use water extracted from another parcel (Urgency Ordinance 21-07 and later Ordinance 21-13, codified at Siskiyou County Code section 3.5-13.101 et seq.). To receive permits under the new ordinance, both the water supplier and user would need to submit to property inspections and have no code violations, an impossibility for most subdivision residents who lived in unpermitted structures because they did not have wells (having a well is a prerequisite for a building permit). Some local residents warned of the impending humanitarian crisis. “It is highly likely that no permits would or could be issued,” pointed out a local rancher in a written public comment after the ordinances passed,⁹ “[t]here is no guidance as to ... how the end user is evaluated to determine whether their ultimate use of the water is non-conforming or illegal” (SCBOS Minutes August 3, 2022). Seventy-three percent of people cited during the tenure of this ordinance were Asian American (*Chang et al.*).

The second emergency ordinance passed by the board of supervisors on May 4, 2021, banned the transportation of more than one hundred gallons of water on certain county roads (Urgency Ordinance 21-08 and later Ordinance 21-14, codified at Siskiyou County Code section 3-4.1501). The county board then immediately adopted a resolution that limited the water truck ordinance to only named streets adjacent to the Mount Shasta Vista, Dorris, and Macdoel subdivisions where Asian American residents lived (Resolution 21-61). The county did not include any streets near known cannabis cultivation areas in the western part of the county where a majority of growers are white.

As the board of supervisors met to discuss those water ordinances and the associated resolution on May 4th, 2021, one supervisor noted that “no one cares about” water trucks in the western part of the county engaged in similar cannabis-related deliveries (SCBOS Minutes May 4, 2021). The sheriff, who attended the meeting, responded, “I think it is important that we direct our anger at the right people. You know, we have good people in this county that have agriculture and we have people who are abusing that. We know who they are. And frankly, I’m perplexed that those people are not shamed more... we focus on the people that are causing the problems... we need the cooperation of our local people... [to] really choke it out” (SCBOS Minutes May 4, 2021). The board encouraged ordinance enforcement with “absolute discretion” and a supervisor emphasized the need to target people “that thumb their nose at us... thumb their nose at society, and thumb their nose at our way of life” (SCBOS Minutes May 4, 2021). Discourse delineating

⁹ Because these ordinances were passed as Urgency Ordinances, no public comment was allowed before the board of supervisors voted, but public comments were collected after the ordinances were in place.

“our local people” and “our way of life” from othered groups, that officials know “who they are,” undermines the county’s assertion that these enforcement mechanisms were about eradicating cannabis, not eradicating Asian Americans.

As the board of supervisors met that May 4th day, the sheriff’s office had officers waiting in their police cars at the roads that lead into the Mount Shasta Vista subdivision, according to police scheduling records and residents. Within minutes of the supervisors’ vote to approve the ordinances, sirens wailed across the Shasta valley, according to residents. The police, who had been waiting for the news to come over their radios from the county seat (a forty-minute drive away) immediately began pulling over water trucks, removing the driver, serving fines, and impounding trucks. The county did not post signage or inform residents of the ordinance change as the ordinance itself required before taking enforcement action that residents described as swift, threatening, and brutal (*Chang et al.*). During the next three months, 70 percent of those cited under the water truck ordinance were Asian American (*Chang et al.*).

In the summer of 2022, we spoke with one Hmong American woman who described an incident from the previous summer. She said her mother had been driving home shortly after the water truck ordinance passed with several buckets and a picnic cooler filled with water (just over one hundred gallons total)—enough for a few days of domestic use—when she was pulled over by the police, forced to lie on the ground, and her truck impounded. Over a year later, the woman said, her family still had not been able to pay the fees necessary to retrieve her mother’s truck.

On June 28, 2021, just a month after the water truck ordinance passed, a wildfire broke out on the slopes of Mount Shasta. Over the next seven days, the Lava Fire, as it was named, flowed down the mountain’s slopes and through Mount Shasta Vista, burning across a large swath of the Mount Shasta Vista subdivision (KHSL and KDRV 2021). The county ordered subdivision residents to evacuate and set up armed barricades at the entrances to the subdivisions (KHSL and KDRV 2021). State fire officials were reluctant to fight the fire, citing fears of criminals and illegal activity in the area (KHSL and KDRV 2021). Hmong American residents mounted their own firefighting effort, not for the first time (Whitcomb 2021). Hmong American residents said that police would not let them bring supplies into the subdivision for the community members who were fighting the fire. The wider community organized around those inside. Hmong American residents recounted how evacuees told those who had stayed to break down their gates, to take the water from their storage tanks, to eat the food from inside their homes. Subdivision residents, especially elders, described the fire as eerily reminiscent of their experience in Laos. “It was like trying to feed the Hmong community in the jungle,” one older Hmong American woman said. Griset turned on his water pumps for the Hmong firefighters to fill from, according to residents. The county then cut Griset’s power, disabling his water pumps. In response, Griset installed a large sign by one of the barricaded entrances to the subdivision that read, “Welcome to North Korea,” which several residents later showed me photos of.

The same day, on June 28, as families evacuated and some residents stayed to try to fight the fire, law enforcement officials shot and killed a Hmong water truck driver (Samson 2021). Police say Sooblej Kaub Hawj refused to evacuate and brandished a weapon, although eyewitnesses dispute this claim, and the sheriff’s office declined to release body camera footage of the incident

(Boryga 2021). Mr. Hawj was thirty-five years old; his wife and three children were in the car behind him (Boryga 2021).

According to officials, the county also arrested people who resisted evacuation orders during the fire. Additionally, the county district attorney began adopting innovative approaches to prosecuting cannabis cultivators as felons, including pursuing grand jury processes and imposing charges of intent to commit a misdemeanor, which is a felony, arguing that planting cannabis seedlings shows clear intent to commit the misdemeanor of cultivating cannabis.

After the Lava Fire, these increasingly punitive actions, and the death of Mr. Hawj, the Hmong community held rallies and hunger strikes. In front of the county courthouse several hundred people, a majority Asian American, protested on August 3, 2021 as the board of supervisors met inside (Whitcomb 2022). Since the passage of restrictive water ordinances in May, primarily Asian American communities had held several protests in the county seat. At these protests people held signs that read “We need water,” “We live here Siskiyou County,” “Water is a human right,” and “Asian lives matter” (Whitcomb 2022). At the August 3rd protest, protestors faced the courthouse steps where a line of sheriff’s deputies stood, restricting protesters’ access to the building where the board of supervisors was meeting. Simultaneously, the deputies allowed participants of a small counterprotest, most of whom appeared white, to move freely and enter the courthouse (*Chang et al.*). These counterprotestors shared their “racialized fear and indignation” in meeting comments that day (*Chang et al.*). One meeting attendee said, “They are outside right now. [Illegal] growers are now out around us. [They] are stealing water” (SCBOS Minutes August 3, 2021). Referring to public comments submitted in writing by Asian American residents, another meeting attendee said, “It’s funny, you just heard a list of names there that we are dealing with in our subdivision with illegal marijuana grows. [They] invade our county on an annual basis,” she went on, directly admonishing Hmong people to “live like normal people, [be] good citizens, you came here to lie to us in the first place about being good citizens. ‘Oh, we want to be good citizens, we fought for you.’ No, you didn’t. You were brought over here to this county to take advantage of what we offer here” (SCBOS Minutes August 3, 2021). During protests outside the courthouse in summer 2021, Hmong protestors often chanted, “Water, water, water” and speakers shared their experiences of water scarcity and what many described as harassment by police, according to attendees. For example, although Asian American residents comprise less than 2.5 percent of the county’s driving age population, nearly 30 percent of all traffic stops in 2021 were of Asian American drivers (*Chang et al.*). Demonstrators held signs that read “Asians are being profiled,” “We Need Water to Live,” and “Stop Discriminatory Harassment” (Chandler 2021). One organizer of a protest in May against the water ordinances said their goal was “to protect peoples’ rights” (Choy and Kinkade 2021). Without the water trucks that supply water to most of the thousands of people who live in the Mount Shasta Vista subdivision, he said, they “can’t grow their vegetables or give water to their animals” (Choy and Kinkade 2021).

The summer of 2021 was the hottest on record in California (NOAA 2021). People in Siskiyou County’s rural subdivisions had few ways to get water. Those with wells shared water with friends and family for basic household needs, but not enough to water gardens or even, in some cases, pets and livestock. Residents described filling five-gallon jugs each day, and collecting enough water for the day could take up much of their time. One Hmong American resident said

that to get water, “I have to beg like a dog, beg from my own people.” Another Hmong American resident described how “living here with the water ordinances [is] like my parents lived in Laos where it was prohibited to get water, and people were not allowed to move freely from the villages, they were like prisoners and that is how it feels here.” According to several water truck drivers we spoke to, some drivers took enormous risk, making water truck deliveries in the middle of the night and charging over \$1,000 for a truck of water that would have previously cost under \$200.

After national press attention, a dry summer, and a federal civil rights lawsuit filed against the county regarding the three recent water ordinances, on September 3, 2021, a federal judge granted a preliminary injunction, preventing the county government from enforcing either of the 2021 water ordinances it had passed in May, but allowing continued enforcement of the 2020 ordinance prohibiting groundwater use for cannabis cultivation (*Dilevon Lo et al. v. County of Siskiyou et al.* (21-cv-00999-KJM-AC(2022))). The lawsuit against Steve Griset also continued, preventing him (and scaring other farmers) from providing water to people in the subdivisions (*California v. Griset*).

At the first board of supervisor meeting after the preliminary injunction, white residents showed up in force to register their support of the county government and demand additional action, according to attendees. One attendee dismissed the racism experienced by Asian Americans as “a bunch of baloney,” going on to say that it was “the permanent resident citizens that actually live in homes [who] have been intimidated by these people, these illegal pot growers” (SCBOS Minutes September 21, 2021). Echoing rhetoric shared by county officials, another attendee said, “These are people who are calling themselves a community out here, give me a break. These people are not [residents]. Please don’t tell me these people are a community, they’re all criminals” (SCBOS Minutes September 21, 2021). Although the water truck ordinance had already been temporarily enjoined, the board of supervisors approved a resolution at that meeting to make that ordinance apply to all county roads, not only those surrounding Asian American communities (Resolution 21-139). A supervisor suggested the change “eliminates that perception that we’re going after XYZ,” stating, “To me it’s a cleaner thing to make it county-wide, that way it’s not perceived that we’re just going after any [one]. If we do this more consistently it will eliminate that perception that we’re always targeting someone or something” (SCBOS Minutes September 21, 2021).

In May 2022, Siskiyou County filed a motion to dissolve the injunction, citing the California Sustainable Groundwater Management Act and plans to have the stalled water ordinances in place ahead of the growing season (*Dilevon Lo et al.*). The ACLU of northern California and the Asian Law Caucus then filed amici briefs in opposition to the county’s motion to dissolve the preliminary injunction (*Dilevon Lo et al.*). Citing civil rights law, the amici briefs argued that the county government’s actions against Hmong American farmers were racist in intent (*Dilevon Lo et al.*). In August 2022, the ACLU then filed its own civil rights lawsuit, contending that the county views “Asian Americans as a monolithic group of which every single person is part of a violent drug cartel and blame the County’s widespread cannabis cultivation on Asian Americans in explicitly racialized terms” (6). The ACLU lawsuit describes “The County’s creation of a water crisis aimed at Asian Americans” as a “humanitarian crisis... Without wells, Asian American residents relied on water trucks to haul water from other parcels to meet their needs for

bathing, hygiene, consumption, cleaning, gardens, fire protection, pets, and livestock... The water ordinances degraded community members' health, killed off their livestock and gardens, left them unable to fend off wildfires, and resulted in many being forced to leave their homes" (*Chang et al.*).

In August of 2023, the county settled the civil rights lawsuit alleging racial animus in its creation and enforcement of the water ordinances (*Dilevon Lo et al.*). The terms of the settlement required the county to repeal the two 2021 water ordinances—against water trucks and moving water between parcels. The settlement also gutted the 2020 water ordinance (that prohibits the extraction and use of groundwater to grow cannabis) by adding a mens rea requirement, which requires the county to show that a person knowingly extracted groundwater for cannabis cultivation in order to fine them (it also cut that fine from \$10,000 to \$5,000 per incident). As of December 2023, the ACLU lawsuit against the county remains in settlement negotiations.

Effects

As law enforcement efforts expanded in scope and intensity, cultivation methods changed.

Growers described how, especially since about 2019, when many say enforcement efforts scaled up, the scale of cultivation also increased. Many Hmong American growers described how they previously grew outside, usually under ninety-nine plants, sometimes still expressing confusion about medical allowances (one grower even showed us a medical license he carries). As enforcement ramped up, growers responded by shifting cultivation into greenhouses and high tunnels to reduce the visibility of plants; they adopted more intensive cultivation practices like fertilizer and pesticide use in attempts to get a harvest sooner, before being raided; and they grew on more parcels to spread risk if one was raided. New land uses and cannabis economies have emerged.

Changing local policies and enforcement strategies had racializing effects. Officials and residents also reported new racial and ethnic categories of growers, particularly Chinese and Chinese American growers. Though Chinese cultivators began coming to Siskiyou County in about 2019, according to informants, it seems that the land in the subdivisions cleared by the fire in 2021 has been especially transformed by large-scale greenhouses that many residents and officials identify as operated by Chinese growers. Many Chinese-owned greenhouses have also been installed across the street from Mount Shasta Vista on a large parcel owned by one of the Hmong American leaders, as evidenced in court cases. Many people described the Chinese cultivators as operating larger scale grows and not having the intent to settle down and live in the region.

While many Hmong American residents participate in multilayered community structures, including kinship, clan, and spatial proximity, interviewees describe the Chinese diasporic growers as more "individualistic" or "alone." While citation records suggest that enforcement concentrates on residents of both Hmong and Chinese descent, the Hmong community has organized a strong response. As US citizens and veterans of US-led conflicts, many members of the Hmong diaspora have legal protection from deportation and a compelling history of sacrifice for the US. Hmong American residents have organized together to pursue legal action against the county, with significant legal success (e.g., *Dilevon Lo et al* repealed the 2021 water ordinances).

Some Chinese growers in Siskiyou, according to informants, do not have US work authorization, making them especially vulnerable to legal action. Without veteran and refugee status, they are especially vilified by county officials. In an interview, one elected official made unsubstantiated claims that “Chinese triad” and “Communist Chinese military” were growing cannabis in the county. Connecting local dynamics to broader US conservative fears and conspiracies, he said, “I’m not stupid. I see what’s going on. I mean, my God, look at what we’re doing today with the government selling our reserves to them.”

Many affected residents expressed a sense that the county’s goal was to push them out of the area. In 2023, many plots in the subdivisions stood empty. Between wildfire damage, enforcement activity, the low price of cannabis, and—especially—the lack of access to water, many people had left. Hmong American residents often described a sense that the county’s goal was to run them out of the region. A white subdivision neighbor observed the county’s persistent enforcement attention to the subdivisions as like “rabbit hunting.” Residents estimated about half of the Hmong community had left. Many Hmong American farmers have not yet sold their land, partly because its value has plummeted, and partly because they are waiting to see what happens with the ACLU case. Some described a desire to move back and make Siskiyou their home. Many people have also stayed, some because they had invested their life’s savings and had few other options. One Hmong elder said, “The first generation here doesn’t have education, it’s hard to make a living. They’re farming people who missed the opportunity to be in school because they were soldiers as kids. They are very limited in what they can do.” Another older Hmong farmer, who had retired from a career growing cut flowers near Fresno, said, “In Laos we farmed since we were five. My entire life, farming is all I know and what I’m good at.” Smaller-scale cultivation continues to persist alongside empty parcels and newer large-scale operations.

Another reason Hmong American residents have persisted in Siskiyou is community. Within and between the subdivisions, Hmong American residents have established community care networks with volunteer committees to support elders, and self-provision essential services. Despite civil rights lawsuits against the county, multiple interviewees described the county’s enforcement efforts as still “harassing.” In response, Hmong American residents of the subdivisions have organized a community-watch system of their own. Each Hmong American resident has a one-hour volunteer shift each week to monitor the entrances of the subdivision—especially for approaching law enforcement vehicles—check on neighbors, and be on call if an issue like a fire breaks out. There are also “teams” of residents available to help—especially elders—with various tasks. Two young men form the information technology team to help when someone has an issue with their phone or other electronics. There is a firefighting team of water truck drivers. Certain people try to help others translate documents from the county. Others assist elders with their social security or disability paperwork. Stalls, where one can buy noodle soup, bubble tea, or freshly grown vegetables, arise in several community centers in the subdivisions, including traditional plant medicine stalls (which do not carry cannabis), and more. These community centers also host festivals, feasts, and dances, which often begin with hours of communal food preparation, and end with speeches, almost always in Hmong, and toasts. Hmong American residents describe wanting to create a school and community health clinic in the subdivision.

Medicinal cannabis cultivation has become more difficult, but persists. In the western part of the county, cannabis cultivation also persists as what many described as a crucial source of medicine. Indigenous and primarily white growers continue to cultivate for medical and personal use. Cultivators in the Happy Camp describe how they once relied on growing and selling cannabis to support their rural livelihoods in such a remote area with few other economic opportunities. But with the cannabis market crash and devastating wildfires in recent years, most growers here have significantly scaled back, now only growing enough for themselves and to gift to family and neighbors in need. The reduction in cannabis cultivation here is not due to enforcement. Residents said there has not been any law enforcement activity in the region since the one big raid in 2016. With the county’s enforcement “attention on the other side of the county,” as one white medical grower in Happy Camp noted, personal and medical growers have continued to grow within a long-standing set of community norms: be a good neighbor, don’t grow too much, don’t hurt the environment, share medicine with those in need. In Happy Camp, many of the growers we interviewed had children or other family members with severe health conditions, including seizure disorders, who they said relied on cannabis medicine many hours away from formalized medical care.

Well-resourced cultivators may be able to move to permit cities. In addition to historic cultivation communities like Happy Camp, and contentious regions like the subdivisions, Siskiyou is also home to three cities that have allowed cultivation. In late 2017 Mount Shasta and Dunsmuir approved permit programs, and Weed followed in 2018. As of 2023, each city had a single indoor cultivation operation in the permitting process. The operators of these cultivation facilities are distinct from those in the unpermitted markets. Several we met were white, relatively wealthy, and well-connected. Able to navigate and afford complex and expensive licensing and permitting requirements, these entrepreneurs had leveraged well-resourced networks and experiences working in other lucrative careers. In these urban permit bubbles, cultivation businesses can capture legal markets. Simultaneously, just a few miles away, rural neighbors growing the very same crop, and often experiencing poverty, are not only excluded from legal markets, but punished for that exclusion.

Across the county, many of the problems the county government had pinned on cannabis continue. There simply is not enough water to go around. The State Water Resources Control Board has been forced to issue curtailments against multiple irrigators. Family farms and ranches struggle to persist. Reports of dry residential wells continue. Wildfires are now routine, and killed at least four people in Siskiyou County in 2022 (Associated Press 2022). Much of the county’s capacity—in terms of staff and financial resources—continues to be spent on cannabis enforcement efforts, with a majority of the general fund supporting the sheriff’s office. As one board supervisor told us in an interview, “My job as the supervisor is to give the sheriff as much resources as he needs to operate. We’re short staffed, guns, dogs, wild, wild west scenario.” While the county has been dedicated to cannabis enforcement, opioid overdose deaths rose from two in 2019, to eighteen in 2021 (Siskiyou Opioid Safety Coalition 2023). The county government’s aggressive anti-cannabis actions have also placed it at litigation risk, posing yet another drain on limited county resources. With few resources, and an enforcement-only approach, the grow sites that are raided are rarely remediated, posing ongoing environmental risks (box 3). Meanwhile, cultivation has not stopped. Even with high fines, property liens, frequent raids, and water cutoffs, cultivation persists. People do not continue to grow cannabis

because enforcement is too limited or lenient. People may grow cannabis to access medicine, but mostly they grow in unpermitted markets because they have few other economic options. Cultivation ban policy does not address the root causes of persistent illegal cultivation: poverty and inequity.

Box 3. Siskiyou County Grow Bulldozed by Representative LaMalfa

“I love the smell of diesel power in the afternoon, it smells like victory,” was Congressman Doug LaMalfa’s opening line before climbing aboard a bulldozer in a video on his website posted under a press release entitled “Exposing Organized Crime Illegal Marijuana Grows in Siskiyou County” (LaMalfa 2021a). The Republican representative for Siskiyou County, LaMalfa has been a vocal supporter of Siskiyou County’s efforts to, as he says in a video, take “the bull by the horns on this thing... they’re going to run these guys outa here” (LaMalfa 2021b), and in another says, “They need the ability to start running even more bulldozers through here and knock this out and tell the people involved that you’re not welcome here” (LaMalfa 2021c). In the press release from July 22, 2022, LaMalfa describes the subdivision grows, saying, “Trash, illegally used pesticides, human waste and fuel cover the ground that has been scraped bare of organic matter with nothing but dust left. Nothing about the organized criminal grows in Siskiyou county is legal. These grow sites are destroying our environment. Local wildlife is now nonexistent in the area” (LaMalfa 2021). In the video where LaMalfa bulldozes through greenhouses in the Mount Shasta Vista subdivision, with Mount Shasta looming majestically, the voiceover emphasizes “illegal activity,” “gangs,” “organized crime,” “criminal drug rings,” and “criminals” who live in “squalid huts” and pollute the environment. In another video in the series, Sheriff LaRue describes the coalition-forming power of emphasizing environmental harms in enforcement efforts, saying, “People on both sides of the aisle, no matter where you stand politically, can all get behind the fact that our environment here is being absolutely just trashed” (LaMalfa 2021b). Congressman LaMalfa laments environmental regulations against “normal farmers” and how “illegal” cannabis cultivators can use “stuff normal farmers would be regulated to death if they did try to use it,” he said. “The law comes down against some farmer accidentally doing something with the fish or water or whatever might happen incidentally” (LaMalfa 2021c).

While unpermitted cannabis cultivation can cause significant environmental harm, the environmental harms of enforcement are notoriously under recorded (Lu et al. 2022). When we visited the site LaMalfa had triumphantly bulldozed on video two years later, it was trash-filled, having been abandoned after the raid. Greenhouse plastic was shredded and ground into the sand, fertilizer tanks were punctured and strewn about, bits of plastic pots and plant trays were jumbled around, plastic water tanks were cut open, and hoophouse piping lay bent and mangled. A small plywood shed stood off to the side of the bulldozed site, its door busted open. A few clothes lay on the floor and a calendar hung on the wall, still open to July 2021, when the raid happened.

While the enforcement and bulldozing, in this case, achieved the Congressmen’s stated goal of “run[ning] these guys outa here,” it had not included cleaning up the trash and other

environmental pollutants. While environmental justification serves well to garner resources for enforcement, there are often few resources left for environmental remediation.

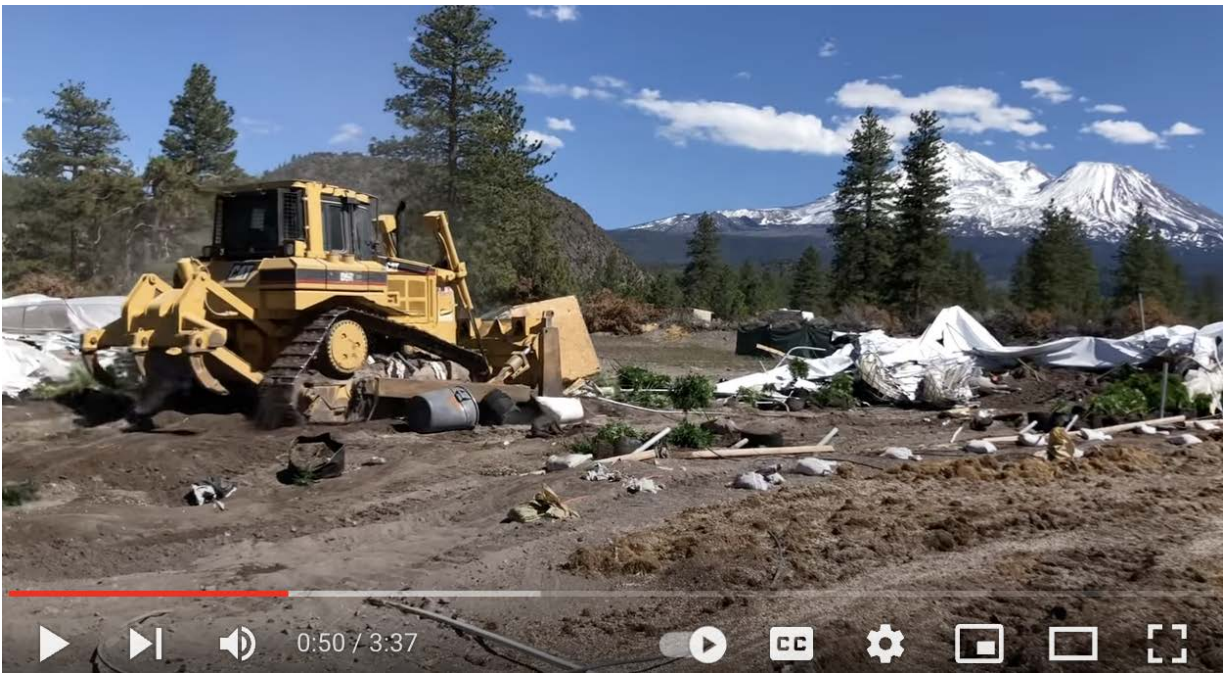


Illustration 2. Screenshots from Rep. Dough LaMalfa's video bulldozing a cannabis grow in Siskiyou County. Accessed from LaMalfa's website January 2024.



Illustration 3. Many Hmong American farmers in Siskiyou County live in drought and wildfire-vulnerable rural subdivisions that lack public services like paved roads, water, or electricity. This photo, taken in October 2022, shows a greenhouse and water tank re-built behind a rocky hill (lower right). Note the dead trees burned in the 2021 Lava Fire and Mount Shasta in the background. (Photo by Petersen-Rockney, 2022.)

Table 4. Timeline of Key Events for Siskiyou County Cannabis Cultivation

<p>1996: Proposition 215, Voters approve Compassionate Use Act.</p> <p>2004: Medical Marijuana Program Act provides statewide guidance for medical marijuana.</p> <p>2014: SAM (Siskiyou Alternative Medicine) founded to advocate for medical marijuana rights.</p> <p>2014-2015: Siskiyou County Planning Division holds workshops with public about medical cannabis.</p> <p>March 2015: Agricultural commissioner states cannabis is not agriculture.</p> <p>April 2015: Siskiyou’s first medical marijuana regulations passed.</p> <p>2015: Hmong American in-migration noted by residents.</p> <p>Late 2015: Hmong Americans organize and begin countywide advocacy for voter registration.</p> <p>September 2015: Medical Marijuana Regulation and Safety Act passes, regulating medical marijuana businesses at state level for the first time.</p> <p>December 2015: Siskiyou’s supervisors bans outdoor cultivation and tightens cannabis ordinances and enforcement; advocates present 1,500 signatures in opposition.</p> <p>January 2016: Advocates collect 4,000 signatures to place stricter ordinances on county voter</p>

ballot.

March 25, 2016: Sheriff's office releases a strategic plan with state and federal agencies to "attack illegal grows" and enforce civil regulations.

May 25, 2016: Sheriff's office releases study reporting rising crime rates and attributes them to "the #1 public enemy to Siskiyou citizens[--]criminal marijuana cultivation."

June 5, 2016: Sheriff's office accompanies state voter fraud investigators to properties of Hmong Americans, resulting in a lawsuit of voter intimidation.

June 7, 2016: Siskiyou voters approve more restrictive cannabis cultivation ordinances.

July 2016: Sheriff's office founds Siskiyou Interagency Marijuana Investigation Team with district attorney; soon enlists National Guard, CAL FIRE, and California Highway Patrol in cannabis enforcement activities.

September 2016: Siskiyou Alternative Medicine brings suit against county alleging constitutional violations and harassment by sheriff's office.

November 2016: California voters approve Proposition 64, Adult Use of Marijuana Act (AUMA), legalizing recreational cannabis.

Winter 2016–2017: Three carbon monoxide deaths in grows.

June 2017: State merges medical and recreational regulatory systems in the Medical and Adult Use Cannabis Regulation and Safety Act (MAUCRSA).

June–December 2017: Local, regional, and national papers highlight conflict between Hmong Americans and law enforcement.

July 2017: Planning division submits study to supervisors on potential for commercial recreational and medical license-based regulatory system; recommends against agricultural zoning.

August 2017: Cultivators arrested for bribing sheriff for exemption from county cannabis ban.

August 8, 2017: Siskiyou County passes moratorium on all recreational and medical cannabis commerce.

September 5, 2017: Siskiyou County issues an emergency declaration regarding cannabis cultivation.

September 16, 2017: California Department of Agriculture declares "cannabis is an agricultural product."

September 2017: Hmong American lawsuit against county dismissed.

October 2017: Mount Shasta, in Siskiyou County, passes municipal ordinance allowing cannabis commerce.

November 2017: Siskiyou County bans camping on private property without a legal residence.

December 2017: City of Dunsmuir, in Siskiyou County, passes municipal ordinance allowing cannabis commerce.

January 2018: California's cannabis commerce regulations take effect, allowing permitted businesses (or those in permitting processes) to begin operating.

April 2018: City of Weed, in Siskiyou County, passes municipal ordinance allowing cannabis commerce.

May 2018: Sheriff's office hosts first Hmong American and County Leaders Town Hall Meeting.

Summer 2018: Sheriff's office continues building enforcement alliances with other agencies (California Department of Toxic Substances Control, State Water Resources Control Board, California Department of Fish and Wildlife).

June 2018: Sheriff's office hires first Hmong American sheriff's deputy in Siskiyou County.

August 2018: Supervisors tighten penalties, timeframes, and appeal processes for civil code violations; formalize and expand powers for enforcement officers.

Jan 9, 2019: Board of supervisors places a forty-five-day ban on hemp to study it.

June 2019: County implements permanent prohibition of all commercial cannabis activity in unincorporated areas.

2019: Sheriff's office, board of supervisors, and local news increasingly frame cannabis as a threat to local children and pregnant women.

December 4, 2019: United States Drug Enforcement Administration commits additional funds to SCSO Domestic Cannabis Eradication Support Program for marijuana enforcement efforts in 2020.

December 10, 2019: Moratorium on industrial hemp in unincorporated county extended.

April 28, 2020: An ACLU report finds that Black Americans in Siskiyou County are eight times more likely to face arrests for cannabis possession than white Americans.

August 4, 2020: Ordinance No. 20-13 adopted, making groundwater extraction for cultivating cannabis illegal.

September 28, 2020: County files lawsuit against Steve Griset for selling water to subdivision residents.

October 2020: Jeremiah LaRue, who aims to fix illegal cannabis issue through restricting water access, is appointed Siskiyou County Sheriff.

March 2021: Urgency Ordinance 21-03 is passed requiring proof that illegal cannabis plants have been abated.

April 2021: Ordinance 21-05 is adopted, detailing the process code enforcement needs to use to ensure that property owners have abated illegal cannabis plants.

May 2021: Two urgency ordinances proposed that would A) require administrative permits for groundwater extraction to ensure its not being used for cannabis cultivation, and B) make driving water trucks on certain county roads a misdemeanor.

May 12, 2021: District attorney files civil suit against two farmers who are accused of selling water to illegal cannabis grow sites.

May 12, 2021: Protests begin against urgency ordinance that restricts water trucks to primarily Asian American areas of the county.

June 2021: Federal civil rights lawsuit is filed against board of supervisors and Sheriff LaRue because of water ordinances.

June 25, 2021: Lava Fire begins.

June 30, 2021: Hmong man allegedly points gun at police and is killed by police officers during fire evacuation.

July 2021: Hmong American landowners allege that fire responders allowed fires to spread and destroy cannabis farms, nonemergency water trucks still restricted to certain county roads, making it extremely difficult for Hmong American landowners to fight fire themselves.

July 2021: Fourteen people associated with marijuana cultivation are arrested for resisting fire evacuation orders.

July 2021: Sheriff LaRue says that new water ordinances have had higher success in stopping illegal marijuana grows, claims connection between healthier wells and new ordinances, though without evidence.

July 2021: Tensions rise due to Lava Fire shooting and destruction, Hmong American protestors demand police accountability after Lava Fire shooting, engage in protests and

hunger strikes. Sheriff LaRue restricts movement of Asian American protesters while allowing counterprotesters access to nearby county buildings.

July 2021: District attorney begins investigation of police officers involved in Lava Fire shooting, body cam footage is unavailable.

September 2021: Federal Judge Kimberly J. Mueller issues a temporary injunction that temporarily stops water-truck bans on county roads, cites the inability of Hmong community members to obtain permits for water due to language barriers or inadequate housing. Without permits, the ordinance effectively bars Hmong community members from obtaining water for non-cannabis activity.

November 2021: Sheriff LaRue reports yearly numbers for cannabis eradication at Siskiyou Conservative Republican Meeting, drastic increases from the previous year.

December 2021: Board of supervisors pass ordinance amending Siskiyou County Code section 10-14-095 that imposes a fine for failure to abate illegal cannabis plants.

June 2022: District attorney decides not to charge officers for Lava fire shooting, asserting that Hawj was high on meth and pointed a gun at officers.

August 7, 2022: ACLU files a class action lawsuit against Siskiyou County Sheriff's office for discriminatory treatment against Hmong Americans.

October 4, 2022: High-profile marijuana grower, Chi Meng Yang, is sentenced to almost six years in prison for attempting to bribe Sheriff Lopey, and over one thousand marijuana plants are eradicated from the property of Yang and his sister, Gaosheng Kaitinen, who is also sentenced for the bribery scheme.

November 2022: Family of Hawj files a wrongful death lawsuit against the county in the Lava Fire shooting incident.

March 23, 2023: Congressman LaMalfa proposes H.R. 1473, the TOXIC act, to give resources to law enforcement to eradicate illegal marijuana grows on public lands, increase fines and penalties for cultivation, and restore land damaged by that activity.

April 16, 2023: The Campaign Against Marijuana Planting (CAMP), releases a report and finds that 68,130 plants from fifty-two grow sites in Siskiyou were seized by the program in 2022.

August 7, 2023: Water ordinances are repealed in response to ACLU lawsuit and claims of discrimination against Asian and Asian Americans.

Table 5. Key Siskiyou County Actions Regarding Cannabis Cultivation

Date	Key county action	Purpose
April 2015	Ordinance 15-04	Medical Marijuana Cultivation: establishes plan allowance based on parcel size, property requirements, and an abatement/hearing process for complaints
December 2015	Ordinance 15-18	Medical Marijuana Enforcement: tightens medical marijuana allowance, introduces license and fee structure; advocates present 1,500 signatures in opposition
June 2016	County voters	Siskiyou voters approve more restrictive medical marijuana cultivation measures in Ordinance 14-18 via local ballot measures
August 2017	Ordinance 17-11	Moratorium on Commercial Cannabis Activities: prohibits commercial cultivation for one year, whether or not profit is intended
September 2017	Local State of Emergency Declared	County issues emergency declaration regarding “Proliferation of Illegal Cannabis Cultivation,” citing 2,000+ private grows and nearly universal noncompliance with county code. Allows sheriff’s office to harness other agencies and resources
December 2017	Ordinance 17-14	Amends 15-19 to extend restrictive requirements to personal cannabis cultivation. Exemption for six or fewer plants on private residence in locked facility not visible from public space
July 2018	Ordinance 18-05	Extends the Moratorium on Commercial Cannabis for second and final year to allow county time to develop and adopt permanent ordinance
August 2018	Ordinance 18-06	Amending Citation Procedures for Code Enforcement Processes and Fines: tightens timeframes and appeal processes for civil code violations; formalizes and expands powers for enforcement officers; expands fines for penalties
June 2019	Ordinance 19-07	“Commercial Cannabis Activities Prohibited” in “all zones in the unincorporated area” of the county
December 2019	Ordinance 19-15	Hemp Cultivation Program: approved industrial hemp cultivation on specifically classified county land

January 2020	Resolution 20-18	County supervisors re-declare local state of emergency for “Proliferation of Illegal Cannabis” cultivation
August 2020	Ordinance 20-13	Bans groundwater extraction for cannabis cultivation. Categorizes the use of groundwater for cultivation of cannabis as a “public nuisance”
September 2020	Ordinance 20-15	Adds Article 7 to Chapter 13 of Title 3 in Siskiyou County Code, defining cannabis cultivation as an unreasonable and wasteful use of groundwater
March 2021	Ordinance 21-03	Abatement by Responsible Party or Property Owner: those who have been ordered to abate illegal marijuana plants must provide proof of abatement
April 2021	Ordinance 21-05	Abatement by Responsible Party or Property Owner: those who have been ordered to abate illegal marijuana plants must follow abatement procedures as instructed by the enforcing officer
May 2021	Ordinance 21-07	Administrative Permit Required for Extraction of Groundwater for Use Off-Parcel: use of groundwater outside of legally parceled land or sale of groundwater prohibited without a permit
May 2021	Ordinance 21-08	Water Trucks Prohibited on Certain County Roads: bans water trucks, transporting more than one hundred gallons of water, and transporting water "off parcel," on roads surrounding subdivision where Hmong Americans live.
December 2021	Ordinance 21-19	Abatement by Responsible Party or Property Owner: those who fail to properly abate marijuana plants are subject to a \$5,000 fine for the cultivation of thirteen or more cannabis plants

San Bernardino County

Background

San Bernardino County was one of the first counties to ban cannabis cultivation (and other activities) under medical cannabis. Despite this, it was a key center of indoor cultivation for several decades. Since legalization the county has witnessed a rapid shift in cultivation geography and dynamics. The county responded with one of the most intensive, innovative, and well-resourced local anti-cannabis campaigns since Proposition 64 passed. Before exploring these developments, this section offers context for county geography, economics, and politics.

Geographically the largest county in California and the lower forty-eight states of the US, San Bernardino County covers 20,068 square miles, an area approximately twice as large as Massachusetts, Vermont or New Hampshire. The topography includes the dense, urban areas of the San Bernardino Valley and the high desert regions of the county's vast territory north and east, bisected by the San Bernardino Mountains. Three interstate highways—10, 15 and 40—run east/west into Arizona and Nevada. The federal government owns approximately 80 percent of the county's land, with thirty-five designated wilderness areas wholly or partially managed by the US Bureau of Land Management. Only 5 percent of the county's land area is dedicated to residential, infrastructural or industrial use. The county's large area, urban/rural mix, federal and open land, and highways all shaped the development of cannabis policy and markets.

San Bernardino is home to over 2,193,000 people (US Census 2020), making it the largest county in our study. Given its vast territory, the county is only 40 percent as dense as the state average, though most live in the San Bernardino Valley. Though the county has seen several population booms, its largest absolute growth occurred since 1980, as the county went from a population of approximately 900,000 to 2.2 million, a 150 percent increase. Compared to the state, San Bernardino contains average amounts of white people, 50 percent more African Americans, above average Native Americans, fewer Asian and Asian American people, and a significantly higher percentage of Hispanic/Latino people (56.2 percent versus 40 percent in California). According to census data, white populations trended older (seven in ten people over sixty-five were white) while people of color trended younger (seven in ten children were nonwhite).

The Inland Empire, an area that includes San Bernardino and Riverside Counties, features the ninth-largest concentration of foreign-born residents in the nation. Compared to state averages, county residents are slightly younger (34.4 vs 36.7), have about average poverty levels, and earn only two-thirds as much income, census data shows. Only 23 percent of residents have bachelor's degrees, about 40 percent less than the state average. Low density, racial/ethnic diversity, age-stratified racial groups, and lower incomes and poverty will be important factors for understanding cannabis' development.

San Bernardino's economy and demographic dynamics have depended on residential dynamics. On the outskirts of the Los Angeles metropolitan region, San Bernardino's residential tracts have been a destination for populations seeking affordable housing, particularly those with lower incomes and correlated characteristics (racial/ethnic diversity, lower educational attainment).

The San Bernardino Valley had been a commuter, “bedroom” community of Los Angeles since the 1950s. Between 1950 and 1970, San Bernardino County allocated 40 percent of usable, level land to low-density housing uses (and an additional 25 percent for streets and highways) (De Lara 2018). Since the 1980s, the high desert has become a bedroom community of the San Bernardino Valley, which itself had transformed from a bedroom community to an industrial and employment center (Paterson 2016). Between 1984 and 2014, much of the county’s remaining agricultural land (178,000 acres) was converted into residential and industrial use.

Currently, San Bernardino residents own housing at a higher percentage (63 versus 55 percent) than state averages, making home ownership an important pillar of local life and politics (Davis 1990). Higher ownership rates reflect a lower-than-average cost of housing. San Bernardino County offers significantly more housing under \$500,000 than the California average, and significantly less housing above \$1 million (US Census 2020). Recent analysis places San Bernardino County with the most housing under \$500,000 among counties in Southern California, with most of those residences concentrated in the high desert region (Lansner 2023). In just four years in the 2010s, San Bernardino received approximately 100,000 in-migrants from more expensive areas in Southern California (San Bernardino County Workforce Development Board 2019). In recent years, housing growth and migration has been more intense in the high desert, where housing is significantly cheaper, even than the San Bernardino Valley. Despite this, homeownership remains stratified by race and age: from 2012–17, home ownership was concentrated among those fifty-five and older, while ownership rates for those under fifty-five fell (San Bernardino County Workforce Development Board, 2019). Since older residents trend white, it is likely homeownership also skews white.

Despite significant deindustrialization from 1970 to 2010, particularly in the realm of aeronautics and steel, the county doubled its GDP from 2001 to 2021 and added approximately 40 percent more jobs from 1990 to 2018. Besides healthcare (14 percent of county jobs), a major part of this growth has come from logistics (e.g., transportation, warehousing), which accounted for 16 percent of county jobs in 2017 and received heavy state infrastructural investment since the 1990s (San Bernardino County Workforce Development Board 2019). With its three cross-cutting interstates and proximity to Southern California’s ports, the San Bernardino Valley has been the center of logistics growth, nearly doubling between 2009 and 2017. Cargo from Los Angeles and Long Beach ports, which receives 40 percent of the nation’s imports, drove this growth (Buchanan 2022). In recent years the more sparsely populated high desert region to the north has attracted industry investment, as manifested in major rail, trucking and warehouse projects, especially as warehouse space in the San Bernardino Valley has become more expensive (Smith 2021). While this growth has provided more jobs, logistics wages have lagged general wage growth. Further, the logistics industry has had deleterious effects on surrounding populations, causing conflicts around pollution and air quality. The San Bernardino Valley has some of the worst air quality in the country, elevated rates of child asthma, and significantly higher cancer rates, especially among low-income populations and people of color (Horseman 2023). A 2005 study by the South Coast Air Quality Management District showed that Inland Empire accounted for 50 percent of US residents breathing unhealthy air particulates, a byproduct of diesel exhaust. Diesel exhaust accounted for 84 percent of local pollution-related cancer risk and 84 percent of regional air pollution, correlating with approximately 2,339 cancer cases in 2005 alone, with the largest concentration in Fontana in the San Bernardino Valley. In

his book *Inland Shift*, Juan De Lara (2018) argues that the pollution and health impacts result from environmental racism that targets vulnerable communities.

San Bernardino County is home to a long history of environmental conflict, most famously in the case of Erin Brockovich’s suit against Pacific Gas and Electric over contaminated groundwater. In this arid, desert region, water has become a significant object of public policy concern, with issues including inadequate and fraudulent management of water treatment (Esquivel 2017), the planned opening of a large underground reservoir (James 2023), wrangling over state-mandated groundwater adjudication (Curwen 2021), controversies over corporate water extraction and export (Neate 2016; Rode 2023), and groundwater pollution from legacy industries (Meyer et al. 2022). The increasingly populated Victor Valley (home to the high desert cities of Hesperia, Apple Valley, Adelanto, Victorville, Lucerne Valley, and Phelan, among others) was home to a housing boom before the Great Recession of 2008 and, since 2014, has witnessed new and significant growth in residential and commercial development in response to local boosterism and reduced barriers to building (Logan 2014), raising some concerns over the sensitive, iconic Joshua Tree native to the region. In addition to becoming a place of interest in an ever-expanding logistics industry, Victor Valley will soon be the endpoint of a highspeed rail to Las Vegas that will ultimately connect to Rancho Cucamonga and Anaheim, with linkage to Los Angeles, likely bringing more growth and environmental conflict.

Though a plurality of San Bernardino residents are registered Democrat (40 percent) and residents have elected Democratic presidents since 2008, county politics is dominated by the Republican Party, which claims four of five seats on the board of supervisors. County revenues significantly declined after the 2008 Great Recession, as mortgages, property taxes and construction collapsed. San Bernardino was one of the more significant (and vulnerable) loci of housing expansion during the housing boom of the 2000s. Budget cuts followed in the early 2010s and were made worse by rulings on public corruption (Callahan and Pisano 2014). According to state controller’s office data (California State Controller’s Office n.d.), of the county’s \$5.42 billion in budget expenditures, the largest amount (27 percent) goes to public protection, including police, detention, fire, and judicial costs. While budget amounts for police were highest in the late 2000s, amidst soaring county revenue, budget cuts reduced those funds by approximately 40 percent in 2012–13, after which they have been steadily rebounding. One of the largest staffing expenses of county agencies comes from the sheriff-coroner’s department, which consumes \$427 million (San Bernardino County 2023). Following two cannabis-focused campaigns, the county recently ramped up efforts to address crime through Operation Consequences, which targets violent crime, gangs, narcotics and “ghost guns” (Estacio 2022), all of which have grown the sheriff’s budget. As De Lara (2018) demonstrates, since at least 2009, police, policymakers and media have connected crime (and cannabis, particularly) to immigrant communities through allegations of cartel involvement, often with little substantiation. These narratives dovetailed with efforts to push local and state legislation targeting immigrants, documented and undocumented (De Lara 2018).

Cannabis Policy Dynamics and Evolution

The same reasons that made San Bernardino County a logistics center—namely its location at the intersection of numerous highways heading eastward to numerous markets—also made the

county an important area for cannabis commerce. Also, the county's vast areas of publicly managed land also became a popular area for off-grid cultivation, at least until state legalization made county lands safer to cultivate. Further, in the 1980s, vast tracts of relatively affordable residential stock became important locales for a burgeoning indoor cannabis cultivation scene. Finally, when property prices escalated in the urban San Bernardino Valley in the late 2010s amidst booming residential development and logistics sectors, a new cultivation wave would sweep the county's much cheaper, more vacant high desert area.

In the late 1980s, a nascent indoor cultivation scene grew in San Bernardino County. At that time, cannabis cultivators in northern California were turning toward indoor cannabis production to avoid enforcement efforts like CAMP (Campaign Against Marijuana Planting; see Raphael 1985, Corva 2014). As one current San Bernardino grower, who was sixteen years old at the time, remembers, young workers (in their late teens and twenties) from southern California had been "planting in May, pick[ing] in October" in northern California, giving them opportunities to learn to cultivate cannabis. Soon, "they started getting into the hydroponic thing" and began a house-based cultivation scene in the San Bernardino Valley. It was "very small and very craft and boutique." The indoor growers "perfected their craft" in largely cooperative fashion as they traded strains, grew from seed, and honed genetics for indoor cultivation. "They kind of all taught each other," he comments. For several years, cannabis "stayed in the circle" of these cultivators and their limited market networks but "then all of a sudden, it started getting bigger" in the 1990s. Within a few years "the market demanded" indoor cultivated product. It could be produced on a regular basis, close to the Los Angeles market, without the instabilities of outdoor environmental factors. Though these cultivators may have started with "a room in their garage," as the market grew, "they started thinking, 'we should get a warehouse.' Then they would buy a warehouse and no one would mess with them." Some cultivators, like the one mentioned above, did not move into medical cannabis until much later. Instead, he used earnings from cultivation to start other businesses, like, in his case, a skate shop and later a print-making shop. About ten or fifteen of the early indoor cultivators went on to open their own regional dispensaries after Proposition 215 passed in 1996, giving shape to southern California's cannabis market.

As documented elsewhere (Polson 2017), cultivators steadily moved toward medical cannabis production in the 2000s and 2010s. For instance, the grower above eventually began to work at a local medical dispensary and, borrowing lessons, he worked with the landlord of his print business to open up a cultivation and delivery facility with eight grow rooms. He worked to form a legally documented medical collective with his lawyer, paid taxes, got medical paperwork from patients, all prior to Proposition 64. Another proprietor in the high desert area had turned his smoke shop into an informal dispensary, viewing this as "the good old days" of medical cannabis, which, according to another grow store operator, were much more "collaborative." This dispensary operator's memories of the era focus on its healing and treatment aspects, particularly for cancer patients, and on the warm feelings of being involved in a care and gift economy. As one cultivator remembered, "we helped a lot of people." One person, who is currently a caregiver for his mother, began a medical collective for veterans and, later, students. One grower took an alternative route, setting up a church in the high desert that treated cannabis as a religious medicine and operates to this day. Medical cannabis also supported livelihoods; as one local grower put it, during the medical days "everyone ate." To this day, some cultivators

continue growing what they perceive to be the medical allowance (ninety-nine plants), even if local laws say otherwise (see below).

One local cannabis patient and disabled veteran we interviewed illustrates the role cannabis as a medicinal, income, and social factor played in local life. This veteran came to San Bernardino from Oklahoma to wean himself off painkillers with medical cannabis. He had been suffering from what he describes as paranoia, but was unclear if his paranoia was a result of his fear about being arrested for cannabis. Upon arriving in California and accessing cannabis more freely, his paranoia eased, showing it was actually a concern over enforcement that agitated him. On a fixed income, he was unable to afford a place to live, so he cultivated cannabis as a way to negotiate and pay rent. He took to medical cannabis activism, becoming the president of a pro-cannabis organization in the San Bernardino Valley that was active in local politics. He even took on official roles in welcoming major medical cannabis events (e.g., the High Times Medical Cannabis Cup; SoCal Medical Cannabis Cup; Smokeout Festival; Hemp Con) to the area—events which signaled the presence of a sizable medical cannabis scene. Since the City of San Bernardino has made it more difficult to grow cannabis at home, he has since moved to the desert, where he could (barely) afford to buy land and to cultivate his own medicinal crop.

While San Bernardino Valley was home to a house-based, craft cultivation scene and a significant medical cannabis scene, it also saw significant amounts of cultivation conducted on remote, unpopulated, public lands. In 1999, a record 53,000 plants were seized in San Bernardino National Forest, with one site alone containing approximately 23,000 plants (USDOJ 2001). The US Forest Service reported a 300 percent increase in regional cultivation in the last few years of the 1990s (USDOJ 2000), though it is unclear if this was an increase in cultivation or if it merely reflects an increase in detection and enforcement funding after medical cannabis was decriminalized (see Polson 2019). By 2006, San Bernardino County had the fifth largest number of plants seized by CAMP, most of them from public lands. In 2010, San Bernardino had the third most plants eradicated in public parks.

While private land enforcement generally focused on indoor sites in the San Bernardino Valley, (e.g., a 2,000-plant bust in a private residence, and 500 plants in a business park), it moved to outdoor sites in the high desert (e.g., searches of thirty-seven total sites yielding approximately 9,000 plants in 2014). One officer shares that he “wrote the first search warrant for an outdoor grow [in the high desert] back in 2013” and they “called them plywood grows” for the material used to shield plants (likely of approximately 400 plants in Victorville) from sight. From those years, “it just exponentially went up,” according to the officer. At that time, most of the grows had medical recommendations, so “there were a lot more hurdles” for police to overcome.¹⁰

San Bernardino County did not move to regulate cannabis for thirteen years following Proposition 215. To the contrary, in 2006 the county joined San Diego County in a lawsuit (*San Diego*) to oppose state rules in SB420 requiring counties to issue medical cannabis ID cards to an estimated 7,000 eligible residents (Perry and Powers 2006). After three years of refusing to implement the program, the county lost its suit. A parallel decision in *Garden Grove* ruled against federal preemption of state medical cannabis laws, undermining a key argument of the

¹⁰ By contrast, enforcement against cultivation is “easy now.” Today, “very few people” have their state medical cannabis ID, as county rules require.

county in refusing state-required cannabis policy implementation. Under threat of countersuit by medical patients, the county initiated a medical cannabis ID program. That summer, a Fontana resident had his confiscated cannabis returned to him by the sheriff's department, a first in the county, and an action that signaled recognition of some cannabis as medical (Emerson 2009).

In 2009, the county shifted from a strategy of non-recognition to regulation under county land-use powers. The result, however, was largely the same, as the county passed a two-year moratorium on medical cannabis. In March 2011, when the moratorium expired, the county banned all cannabis retail and all outdoor and collective medical cannabis cultivation. It allowed indoor cultivation allowance of twelve plants per patient and twenty-four plants maximum per property. The ban explicitly identified concerns over crime and illegal drug sales near "sensitive areas," as well as a lack of clear (state) regulations for the ban. The 2011 ban was met with lawsuits, but they were resolved when *Riverside* and *Maral* affirmed the rights of localities to ban dispensing and cultivation of medical cannabis. The county ban was mirrored by municipalities in the Cities of Rialto, Barstow, and Colton, which banned medical cannabis activity.

An exception to these bans came in Needles, a city in the far east of the county on the Nevada border. According to interviews with local officials, the city was "rapidly declining" with "more houses burning than being built," "more businesses closing than opening," and frequent layoffs and furloughs. With modest employment in railroads, the tourist/traveler economy, and the public sector, no sector was growing, except low-wage service jobs. Though the city council first moved to place a moratorium on the existing six gray-market dispensaries, subsequent study suggested that cannabis could be an opportunity for economic development. In 2012 city leaders put a ballot to voters asking if they agreed to charge dispensaries a 10 percent local excise tax. In exchange, the city would agree to allow the dispensaries to continue operation. The ballot passed. However, friction arose with the county sheriff's department, with whom Needles had contracted police services since 2000. In 2014, the sheriff raided a city-authorized dispensaries, leading to the closure of four more dispensaries. The raid "came out of the blue" for city officials and caused conflict between the city and county. Whose laws—city allowance or county ban—should be followed? When the city later tried to shut down *unauthorized* cannabis cultivation sites, sheriff's deputies refused to assist, thus requiring planners and city engineers to conduct raids, which at times involved scaling fences and putting themselves at risk. Since then, the sheriff and city have come to a functional agreement, particularly since the county district attorney stopped pursuing charges against local cannabis operations. Currently, Needles officials report they have been found ineligible for some county economic development funds, because of the city's cannabis allowance. Needles illustrates the potential of cities to economically develop from cannabis and to create an orderly system, relatively unaffected by the crime, pollution, and disorder cited by the county. Yet, the conflict between Needles and the county illustrates some of the tensions that can arise between ban/permit jurisdictions.

After the passage of MMRSA in 2015, San Bernardino further refined their allowance for indoor cultivation. In August of 2016, the county planning commission recommended tightening indoor medical cultivation standards (limited as they were). This included requirements that medical cultivation be at a private residence, in a separate, secured, permitted structure with a solid side not visible from the property's exterior and, for renters, cultivation only with the consent of

owners. In September 2016, the board of supervisors accepted these recommendations and passed a renovated ban on medical and, preemptively, on recreational cannabis (which would pass two months later at the state level). The new ban cited prior justifications of criminal activity (i.e., “trespassing, theft, violent robberies and robbery attempts”) and, newly, “degradation of the environment,” including smells, residential damage, overuse and pollution of water, and dangerous electrical alterations and use (Buchanan 2022). The new ban explicitly cited the 2013 decision in *Maral* that “there is no right—and certainly no constitutional right—to cultivate medical marijuana.” The ban explicitly authorized the ban through the power of “a local government entity to prohibit the cultivation of marijuana under its land use authority” (221 Cal. App. 4th 975 (Cal. Ct. App. 2014)).

In the two years following adult-use legalization, San Bernardino made several updates to county cannabis policies. In 2017, the supervisors carved out limited protections for medical patients and caregivers, explicitly empowered landlords to limit or prohibit cultivation and use of tenants, banned deliveries in unincorporated areas, and specified that people violating the ban would be guilty of a misdemeanor. In 2018, the county clarified that a residence may have up to thirty plants if there are two patients with an ID card (twelve plants per patient, and six plants for personal use). Finally, the county passed legislation prohibiting cannabis use near sensitive sites and in public places.

Prior to and immediately following passage of Proposition 64, the cities of Apple Valley, Big Bear Lake, Ontario, Grand Terrace, Colton, Barstow, Highland, Yucaipa, Rancho Cucamonga, Yucca Valley, Redlands, Montclair, Victorville, Upland, Loma Linda and Chino all passed bans. Of these sixteen cities that banned cultivation, seven contracted the sheriff’s department for police services. Ultimately, all cities that contracted with the sheriff passed bans, excluding two (Needles, discussed above, and Adelanto). In an interview with an Apple Valley official, they explained that prior to their 2016 ban, they had no overt policy regarding cannabis, but passed a ban under state requirements to establish local ordinances or default to state rules. The main impetus behind the city’s ban was a concern with the conflict of federal and local laws, specifically around the fact that most cannabis businesses operate in cash since they lack Federal Deposit Insurance Corporation and other government protections. This official, like many other officials we interviewed, noted the value of medical cannabis, yet did not want to open any gray areas in regulation. They saw the ban as part of a “wait and see approach” while the kinks in legalization were worked out. Apple Valley, like most of the other San Bernardino cities, still maintains bans.

Since the passage of Proposition 64, cannabis cultivation in San Bernardino has shifted significantly, in terms of method (indoor to outdoor) and location (public to private land and urban to rural). First, with adult-use decriminalization at the state level, the consequences for cultivation on federal public lands exceeded consequences for growing on private land under state/county jurisdiction. Cultivation shifted away from federal lands (80 percent of county land mass) to private lands, and was encouraged by ongoing enforcement against cultivation on public lands. Conviction for cultivation on public lands could bring a ten-year mandatory minimum sentence, a maximum of life, and a \$1 million fine. Cultivation on private lands was a misdemeanor with six months maximum. Private lands also offered amenities, especially in areas with agricultural infrastructure like wells, availability of farming inputs, and proximity to roads.

Second, escalating residential prices in urban San Bernardino Valley, increasing demand for warehouse and industrial space in the valley’s “Inland Port,” along with steadily decreasing wholesale cannabis prices, pushed cultivators out of urban areas and toward cheaper land markets, particularly in the high desert. One law enforcement officer recalls that before 2020 most cannabis eradication efforts were focused on primarily indoor sites, largely in the San Bernardino Valley. Many of those sites (64 percent of cases, according to one officer) would have an electrical bypass, which constituted a fire danger and could bring a felony charge and restitution requirements to the electric company. While officers knew outdoor sites were emerging in the high desert, priority remained with indoor grows until 2020 because of the fire danger (“we got to handle the stabbing before we handle the bicycle theft”). By late 2022, in places like Rancho Cucamonga and Chino Hills, where many indoor cultivation sites used to operate, the officer reported that cultivation has “gone down to almost nothing.” As far as enforcement work, this officer estimated “ninety-eight percent of our work has moved up to the high desert area” and that “home prices affected that.” In contrast to the expensive residential properties of the San Bernardino Valley, one enforcement official estimated that in the late 2010s it was still possible to buy five acres in the high desert’s Lucerne Valley for \$5,000. For cultivators, outdoor cultivation was also attractive because there was no need for electricity and the felony charges it might bring (e.g., illegal electrical bypass).

One white grower reported moving to the high desert in 2018, buying a property from a Chinese American man, who had been busted twice for cultivation. The grower moved to the high desert after his hoophouse in the San Bernardino Valley was spotted by helicopters, forcing him to chop his plants. In subsequent years, of his friends growing in San Bernardino Valley, one gave up growing entirely after nearly thirty years, another moved away, and the only remaining person he knew growing was his cousin, who he worries is mentally unwell, whose house is covered (“every last inch”) in cannabis plants, and who is not earning profit for his efforts, with little security, savings or skills for the future. The San Bernardino Valley cultivation scene, as he knew it, was gone.

Third, Los Angeles and Riverside Counties both intensified cannabis eradication campaigns in their unincorporated lands, thus pushing operators into other areas, particularly the high desert, where enforcement was not particularly intensive prior to 2020. One officer estimates cultivators migrated from anti-cannabis campaigns in Riverside’s Anza area in 2019–20 and from Los Angeles County’s campaigns in the Palmdale/Lancaster area, which is adjacent to San Bernardino’s high desert territory (“all they got to do is jump across the county line”). An official who has assisted with operations in both Riverside and Los Angeles, comments on these counties’ “big operations. [Any] time you do that, you’re going to get an influx into [the adjacent] county.” Officers “admit, yeah, we’re just trying to chase [cultivators] to [other] counties. Leave San Bernardino County. I don’t care which one you go to, just leave our county. And they’re the same in Riverside, in Los Angeles.”

Fourth, as interviews with CDFW officials note, in 2018–19 permitting (where it was allowed) was proceeding at an exceedingly slow pace and with numerous expenses. They speculate this encouraged applicants to cultivate without permits, unlicensed operators to avoid seeking permits, and all cultivators to move out of permit counties, where attention to unlicensed

cannabis was often heightened. Shifting state and local rules amplified these dynamics. After the first wave of easy-to-permit, mostly indoor, cultivators became licensed in 2018, licensing slowed in 2019—just when unlicensed grows in the high desert began to propagate.

Finally, in 2019 the county initiated a hemp registration process under new federal (USDA) allowances and state authorization. The program had approximately 200 registrants, most of them located in the high desert (e.g., El Mirage, Barstow, Phelan, and Lucerne Valley). The program was based on simple county registration (i.e., of personal information, address, background report, seed certification). There was little guidance from the county on operation or funding for inspectors or administrators. Hemp cultivation had a low bar for entry (and low application and permit fees), with none of the environmental reviews and local and state county permits applied to cannabis. Hemp cultivators were not supposed to begin operation until county inspections, yet hemp growers often began growing before inspections. The understaffed county program could barely keep up with the initial 200 inspections, much less follow-up inspections, and ongoing sample tests to ensure the plants were below the legally allowed tetrahydrocannabinol (THC) threshold that differentiates hemp from cannabis. Inspections generally relied on THC testing methods that required samples be sent to a lab. Sometimes, if they exceeded the THC limit, officials would return only to find the plants had disappeared. (In 2022/23 the sheriff switched to new “presumptive” testing protocols that could be done on site in shorter times. If crops were over the THC limit, they could be held until conclusive results were gained.) Crops often went unreported and untested and at times hemp fields concealed high-THC cannabis plants or were themselves high-THC plants. Over time, the sheriff became aware that hemp farms were serving as sites of cannabis cultivation, often through sub-leasing arrangements and harvest-sharing agreements. Sometimes the owner would supply greenhouses, water, soil, even clones. One law enforcement official estimated that the 200 hemp sites accounted for about 5,300 greenhouses (one site had 364 greenhouses). Another officer noted that hemp cultivation sites were often the most lucrative and sophisticated in the county. This turn to high-THC cannabis may, in part, be the result of the quick collapse of the hemp market in 2019 and temptation by farmers to grow more lucrative cannabis crops. With most hemp cultivation sites located in agricultural areas of the high desert, the hemp program was the final factor pushing/drawing cannabis into the area. The confluence of the preceding factors—declining public land and urban cultivation; enforcement in neighboring counties; slow legal permitting; hemp allowances—drove cultivation into the high desert and multiplied cultivation sites, one official estimates, by five to six times.

Prior to the boom in high desert cultivation and despite bans, an ample medical cannabis sector had developed to provide access to patients. One retired trucker, for instance, reported starting his own cultivation site during the 2008 housing downturn and eventually turned his operation into a medical delivery service in the high desert. With the passage of Proposition 64, cultivators, delivery operators, patients and others formed the High Desert Cannabis Association (HDCA) to push for passage of cannabis-amenable regulations in local jurisdictions. At its height, the HDCA counted nearly one thousand members, according to one organizer. HDCA succeeded in pushing the City of Hesperia to allow medical cannabis deliveries, despite initial and strong opposition by local leaders—an achievement they won by packing three hundred people into city meetings and highlighting the testimony of a ninety-four-year-old woman intent on providing medical cannabis access to her ailing husband. It took two years for the program to come into

effect. After many hindrances, the program's half dozen permits were not renewed and thirty-five applications in process were suspended. In 2017 HDCA rapidly grew, a leadership struggle occurred, resulting in the capture of the organization by a non-cannabis entrepreneur. This new leader, one former HDCA member maintains, promised to facilitate political connections and win policies in several high desert cities. One HDCA member alleged that the new leader asked individual HDCA members for their patient/customer lists in exchange for his brokerage of priority status for their permit applications in Adelanto. We could not confirm if he followed through on facilitating permits, or if he simply captured clients. Either way, permissive dispensary policies only proceeded in Adelanto, where he and a few others captured key dispensary sites and licenses through questionable schemes and a pay-to-play corruption scheme that landed several officials in jail. The new HDCA leader's dispensary was also raided by federal officials. As it became clear that hopes of widespread dispensary and delivery permits were whittled down to a limited number of delivery permits and strict conditions in Hesperia, and a corrupt permitting system of bottlenecked, brokered patronage in Adelanto, HDCA crumbled amidst bitter recriminations.

With legal cultivation and commercial activity either banned or rendered inaccessible in the high desert, unlicensed cultivation grew between 2019 and 2020, by numerous accounts. The county responded in late 2020 by intensifying cannabis eradication through Operation Homegrown. The five-month operation primarily focused on the unincorporated area of Lucerne Valley, serving three hundred warrants, notching 303 arrests and netting a reported 255,000 plants. Arrest rolls revealed that unlicensed cultivators in the high desert were highly diverse, ethnically and racially, with numerous immigrants. It is possible this reflects the composition of who grows cannabis, though it is likely these populations are lower-income (i.e., unable to afford larger properties or more effective concealment methods) and are marked by their racial-ethnic difference from surrounding residents, as we have found elsewhere. Confirming this suspicion, one white resident hailed the operation as a success that allowed him to get "our community back" and to reduce growing "due to the 'messages sent.'"

Operation Homegrown was partly a response to Lucerne Valley residents, who had stridently complained about unpermitted water use by cultivators. Lucerne Valley had been struggling for twenty-five years to figure out how to foster economic development as (non-cannabis) agriculture declined. Amidst recession in the 1980s and early 1990s, 85 percent of alfalfa fields went fallow, working families left, school population dropped by half, and a vibrant Little League baseball scene collapsed. One resident mourned the loss of "our real identity as a farming community." Now there are "no kids with horses," the BMX track is vacant, and "the rural atmosphere is gone," "customs and culture" were changing but residents tried "to maintain the integrity of land use and community." When attempts at commercial development and correlated infrastructural improvements foundered in the 1990s, the Lucerne Valley Economic Development Association (LVEDA) slowly shifted from development to "community protection," or "from offense to defense" in relation to development, as one LVEDA official framed it. This turn toward protection occurred partly in response to local solar power projects, which residents complained were an environmental and aesthetic nuisance. In lieu of any other development, a resident observed, the area has in recent years taken on a "more urban feel" as a "bedroom community" of the high desert and San Bernardino Valley cities.

Amidst these longstanding community anxieties of industrial, community, and land use change, cannabis was primed to become an object of local ire, especially over water use in what is a mostly adjudicated water basin, where use rights are coveted. As one local resident was quoted in a local paper, “we’re paying assessment fees, we’re losing our water rights, and yet these assholes are coming in and just popping in willy-nilly” (Estacio 2021). This was particularly an issue for residents in one part of Lucerne Valley where the water level of the adjudicated basin had sunk from sixty feet in the 1950s and 1960s to 180 feet after decades of alfalfa farming (Stamos-Pfeiffer et al. 2022). In recent decades, adjudication has reduced water rights by 20 percent and made use a contentious issue, especially by unauthorized cultivators, who were rumored to steal water from hydrants, buy water from residents with water rights at bargain prices, sink unpermitted wells, and haul water illegally. One Lucerne Valley resident blamed the 2021 hit-and-run death of three children on one of these water trucks, though we could not confirm that the truck was carrying water or cargo related to cannabis. The driver, however, was Mexican, a nationality that this local white resident associated with cannabis cultivation. One politically active resident extended concern over unauthorized water use to (mostly Asian) jujube farmers, who he suspects of illegal water draws.

Water was not the only cause of local ire: grows had popped up behind non-compliant eight-foot plywood fences, followed soon by unpermitted greenhouses. Trash blew from one property to the next, including toilet paper from outdoor ditches for human waste. Cannabis commerce caused tension between local residents, as some local contractors worked on sites that became farms, locals sold and hauled water to growers, and landowners turned a blind eye to lucrative tenants. One resident commented that “our home community is complicit.” Approximately thirty permits for hemp were issued in the area, but only one farm began growing hemp, while many others (this resident alleges) used hemp as cover for cannabis cultivation. Though this resident reported suspicion at the time that these cultivators were “cartels,” he conceded it was more likely that they were just foreign-born residents from Central America, China, Vietnam, and elsewhere. One resident describes their presence as “ominous,” purporting that they wore “T-shirts saying ‘we’re going to take this town over.’” “They” would dominate parking lots, use “wads of cash” to buy supplies, and their employees were, he speculated, “poor Mexicans, enslaved.” Another resident drove around with a cell phone to get addresses and access point names (APNs) to submit complaints. Other residents began to arm themselves. In what was a “live and let live” community, the arrival of ethnic newcomers transformed libertarian-leaning residents into county violation reporters.

This litany of grievances and the results of Operation Homegrown led to a series of actions in June 2021. The county authorized a \$10.4 million fund to address community concerns, with cannabis prime among them. The funding (and a later tranche of \$4 million) would be used to expand the county sheriff’s Marijuana Enforcement Team (MET) from one to five teams. The county also passed a resolution to encourage the state to re-felonize cultivation. Around this time, the sheriff and other officials made numerous appearances and public communications to raise the profile of cannabis cultivation and to make the case for increased enforcement. Key among these efforts was a town hall meeting in Lucerne Valley in August 2021, where one county official remembers residents in tears because the natural beauty of the landscape was being defiled and a feeling of danger had descended on locals, particularly fears of being shot. According to a local resident, the sheriff had done an “admirable job” of addressing complaints

but, according to a Lucerne Valley resident, it was a game of “whack a mole.” “They’d get busted and a week later they’d be operational again.” The town hall drew the area’s congressperson, state senator and assemblymember, the local supervisor, the sheriff and lieutenant sheriff, and county district attorney. The local gym filled with residents, and officials got an “earful.” Out of this meeting and strategizing by officials, the county determined to expand their strategy of enforcement-only against cultivators to an expanded approach to addressing unlicensed cultivation. Indeed, around the time of this town hall meeting, the county shifted its strategy from a raid focus to an economic enforcement strategy of fines.

The move toward economic enforcement strategy was first innovated in the high desert’s Victorville. Victorville levied a \$100 fine per day per plant for unpermitted cultivation, in addition to abatement costs. Repeated violations could result in a \$1,000/day/plant fine. According to the sheriff’s department, which provided contract police services for Victorville, this strategy discouraged illegal cultivation and permanently closed operations in city limits. Victorville justified high fees as “cost recovery” for city services and enforcement (Jones 2019), even though these “costs” were only necessitated by the city’s ban itself. Apple Valley followed suit with a graduated fine structure, while Hesperia implemented a flat fine system that starts at \$15,000 (for cannabis grown outside of its restricted medical delivery licenses).

Apple Valley innovated upon fines by holding property owners responsible for correlated issues. The town adopted fines to address cultivation in residential sites, where cultivators were bypassing and stealing electricity, fire dangers existed because of butane processing, and smells caused complaints. The town passed ordinances requiring landlords to re-drywall the house (to address mold and other damage), bring properties back to standard, and for upholding standards and surveilling tenants. Code enforcement was “proactive, not reactive,” as one Apple Valley official noted, as officials actively sought out potential cannabis sites and pursued newly responsible owners. The latter move helped to push cannabis out of residential neighborhoods. Since the town could not address outdoor grows in unincorporated areas surrounding Apple Valley, officials sent letters to the sheriff and supervisors. One key town official does not envision cannabis as part of its economic trajectory. Instead, the official mentions the city is more focused on growth from residential “bedroom commuter” properties (and the revenue this presents to the town), orienting industrial space toward logistics (specifically as they become a satellite distribution center for Long Beach and Los Angeles ports), and growth from newly granted approvals for railways connecting Las Vegas and Los Angeles. That said, some delivery retail still exists in Apple Valley, though it is legally banned. One town official notes that it will be unofficially tolerated, as long as it does not get “out of hand.”

With cities shifting strategies, the county followed suit as they transitioned out of Operation Homegrown into Operation Hammer Strike. Ironically, the growth of fines in cities like Apple Valley, Victorville and Hesperia had helped to worsen unlicensed cultivation on county lands, as some cultivators reported fleeing the cities. In early 2021, the county only levied a \$500 fine for cannabis cultivation, while cities were fining tens of thousands of dollars. In fall of 2021, the county updated their codes to escalate consequences for cannabis violations, through a tiered fine system (with fines starting at \$3,000). At that time, the county also expanded funding for its cannabis abatement team under code enforcement to issue these fines.

In December 2021, the county passed an ordinance and identified funding to go after properties that were not properly cleaned up through a nuisance abatement team (different from the cannabis abatement team mentioned above). This effort to hold owners responsible through abatement was developed when it became clear that “junk” from cultivation sites was not being removed. It was also clear that fining operators and on-site workers was ineffective—people often disappeared. This program would target property owners. It paved the way for county officers to remove things from the property during abatement processes (which previously required a warrant). This team (housed under the Land Use Services (LUS) Department) would accompany the sheriff on busts and would then immediately issue citations with a Notice and Order to Abate to the property owner. At times the LUS would refer a case to the sheriff after proactively identifying them. Occasionally LUS would visit the site alone. Generally, cultivation citations would be issued to a person on the site at the time of the raid by cannabis abatement, while the abatement costs and fines would be issued to the property owner by nuisance abatement. Notably, no pre-fine abatement or remediation period was built in. The fines took effect immediately. Citations might include lack of grading permits or plan sites, improper fencing (which can generally be out of compliance but is also a specific violation if it conceals cannabis), presence of trash, unpermitted structures, unpermitted water storage, and unapproved generators. Each site generally received four to five citations immediately (“it’s usually going to be the cannabis, the fencing, the structures, the illegal occupancy, and the junk”). Fines for cannabis are the most expensive, but the other fines would generally be between \$100 and \$500. LUS would then conduct a follow-up inspection by the nuisance abatement team (usually after twenty to thirty days), when it would issue new citations, abatement administration charges if abatement had not been completed, and inspection charges. Revisiting properties allowed LUS to keep some properties under ongoing attention so they would not grow cannabis again that year.

Nuisance abatement prioritized properties that produced “the best bang for our buck,” namely, addressing public concern and collecting fines, according to county officials. Often this meant pursuing not the biggest, most egregious grows, but pursuing “smaller and medium” grows that would prove to the public that action was being taken. Often these sites were close to “sensitive receptors” (e.g., schools, residential tracts, churches), and thus were more controversial. Larger grows were also more expensive to abate and remediate, meaning LUS was less eager to prioritize remediation. It was also less eager to remediate vacant lots, which were likely to be abandoned by owners. It was more likely to pursue sites with residences, where owners were motivated to remediate. If environmental violations, like berms made of sand, were too expensive to remediate, the county would often leave the violation in place to conserve funds. Frequently, owners would walk away from their properties, since properties had been cheap when the cannabis boom began. If abatements were unaddressed, LUS could issue a special assessment (e.g., lien) on the property, making property sale difficult and thus effectively freezing property assets. Further, LUS may hire a contractor to clean up the property and restore it, which would also have been charged to the property owner. In 2022, LUS conducted approximately sixty abatements like this, and about an equal amount of property owners proactively abated their property prior to county abatement execution. In 2022, LUS issued over 1,300 citations to individuals, which often included multiple violations (as many as 5,500 violations may have been cited in 2022). Total citations during Operation Hammer Strike were close to \$3 million, with about \$1.5 million of that amount collected. These 50 percent remittance rates were “higher than any of us expected,” according to a county official, and more

than other kinds of abatement fines. Unpaid fines usually went to collections, payment plans, or repayment with late fees. The county generally did not forgive fines, as officials believed owners should be knowledgeable of what occurs on their property (ignorance was not an excuse). In 2022 LUS was aiming to develop a satellite surveillance program (provided by a private contractor) to identify cultivation sites remotely and aid in proactive identification and pursuit of properties (which officials estimate will be important as sheriff attention shifts from cannabis).

In order to buttress the remediation and citation tactics above, the San Bernardino County District Attorney's Office became involved in the prosecution of environmental crimes. This provided a new set of felonies with which to charge cultivators and a new pressure point against those responsible for cultivated lands. With medical cannabis cultivation, the district attorney had not been very involved because of legal gray zones. This carried over into 2018–20, when the district attorney largely sought plea deals for cultivation offenses. Since 2020, however, the district attorney's office began, in the words of one deputy, "going after guys for stuff we didn't even realize was illegal." To successfully earn convictions, the district attorney's office would instruct officers on the type of evidence and documentation needed. The district attorney's office was educated on environmental crimes by CDFW. In turn, they trained county officers across agencies on cannabis-related environmental crime (in addition to training by California Hazardous Materials Investigator Association and others). Training covered issues of pesticides, waterway effects, grading and soil disturbance, and water diversion. Deputies began to "think more like environmentalists" and, in the words of one deputy, "we had to change our way of thinking, our way of report writing." Indeed, environmental crime convictions required "documentation, documentation, documentation," in one deputy's words.

Deputies valued environmental crimes because, like the electrical wiring in indoor grows, they were "where we're getting the felony charges," especially for the discharge of water. Because cannabis cultivation was banned, no cultivator could get a water discharge permit and, therefore, all cultivators were subject to a water discharge felony. The other major charge was dumping of hazardous waste, including everything from poisonous pesticides, to improperly disposed light bulbs, to diesel spills from generators. The mere presence of banned pesticides could warrant a charge. Felonies would often carry a three-year sentence, but would usually mean three months in county prison and thirty-three months on probation. Rather than focusing on punishment, a person knowledgeable of district attorney intentions said, the aim was to achieve remediation. Often plea deals were struck if remediation procedures could be agreed to (with Land Use Services and other agencies, as needed). If given a choice, defendants preferred remediation deals to charges, since remediation charges would still be levied with felonies and could not be discharged with bankruptcy. Remediation charges ranged from \$75,000–100,000 per site. Cost recuperation could significantly bolster county coffers. Though Land Use Services focused on smaller grows near sensitive receptors, the district attorney's office followed the opposite pattern: it would prosecute large, remote operations first, since fees and costs associated with their remediation might be better recuperated through the court process (rather than administrative fines). Indeed, larger grow size could make some felonies more possible, for instance, in meeting criteria of "substantial environmental harm," which may only be evident with larger grows. More recently, the district attorney has begun to assist the California Department of Tax and Fee Administration (CDTFA) to estimate how much taxes would have

been charged to an unlicensed site and charge them for the amount evaded—a bill that rapidly adds up for larger grows.

The district attorney’s office has been working with the sheriff’s department to study financial networks around cultivation properties. This often means tracing financial and business entities to particular owners to discover who is responsible for individual sites and to better detect patterns across sites. Such investigation can lead to actions against the assets of not only property owners, but operators, too, if they are leasing other land and connected to other financial entities.

The county appealed to state agencies, like California Department of Fish and Wildlife (CDFW), to enforce its bans. CDFW’s cannabis work in the region has been split between law enforcement, through its law enforcement division, and work on habitat conservation planning, with a focus on permitting legal cultivation and documenting code violations. CDFW has six habitat conservation staff and ten to twelve law enforcement wardens in Region 6 (Inland Deserts Region) covering San Bernardino. Local law enforcement generally contacts CDFW, which will accompany those enforcement agencies to sites to document violations. Much of CDFW’s habitat conservation work focuses on permitting legal grows in the region, and the department lacks the capacity to proactively identify and pursue unlicensed sites. Licensing carries hard deadlines, while unpermitted grows do not. The law enforcement division, however, prioritizes sites based on potential impacts on fish, wildlife and corresponding terrestrial and aquatic features, and works with San Bernardino County as needed. CDFW noted cultivation in the western high desert area in recent years, often with sand berms constructed to shield the grows from sight and to break the wind. The most common violations CDFW sees includes unauthorized change/use of streambeds and banks; chemical waste harmful to fish and wildlife; trash debris within 150 feet of a stream; and unlawful wildlife takes. Officials have seen ephemeral streambeds destroyed; water diversions; and concentrated fertilizers and nutrients that help introduce new invasive species and increase fire danger. Sometimes CDFW pursues charges against individuals, but it is difficult to charge property owners, who must have knowledge of illegal cultivation.

All of these strategies—fines for cultivation, nuisance abatements, increased owner culpability, special assessments, charging of environmental felonies, investigation of financial networks, partnership with CDFW enforcement—operated in tandem with robust enforcement by the sheriff under Operation Hammer Strike, ostensibly named for then-Sheriff Dicus’ desire to “throw a 10-pound hammer at the [cannabis] problem” (Rokos 2021), until the operation concluded. With its expansive, multipronged strategy, Operation Hammer Strike was a significantly more comprehensive effort at systematically attacking unlicensed cultivation. As mentioned, it benefited from a \$10.4 million county allocation in June 2021 and a further \$4 million fund in August 2021, when cultivation fines were elevated and Hammer Strike was officially launched. As mentioned, the lynchpin of Hammer Strike was the expansion of Marijuana Enforcement Teams (METs) from one to five teams, operating throughout the county and systematically working through 1,200-plus locations the county had identified as likely cultivation sites. Each MET consisted of four to seven officers. Rather than consisting of new hires, officers were generally pulled from county substations and dedicated to cannabis enforcement. These teams aimed to hit between four and eight grows a day, Monday through Friday, for the duration of operations. They discovered grows through community tip lines and

other methods, visited the site and surveyed the area for other grows, obtained criminal search warrants (based on things like sight, smell, and traffic), drafted operation plans, and then conducted operations with two code enforcement officers. Officers reported getting shot at or having weapons pulled on them, so they would try to alert residents to their presence and identity as police as early as possible. Though cannabis eradication was the centerpiece of Hammer Strike, one officer called it a “Band-Aid” solution that addressed immediate community concerns but did not address the problem more deeply. In response, the sheriff and district attorney operated a sixth MET to “connect the dots” by analyzing ownership and operator patterns, and data like utility records, vehicle records, limited liability company records, bank accounts, and more. We are not aware of the outcomes of these efforts.

About weekly under Hammer Strike, METs worked with CDFW, less frequently with the DCC, and occasionally with CAL FIRE and CalEPA. For many years, San Bernardino County officers worked with the Campaign Against Marijuana Planting (CAMP), a task force managed by the state Department of Justice, primarily on public lands, though in recent years CAMP also assisted with private land grows. At times, these operations may be supplemented with federal funding (e.g., for overtime) through programs like the Domestic Cannabis Eradication and Suppression Program (DCESP)—which buys uniforms, boots, binoculars, etc.—funding that obliges the county officers to work with CAMP as needed. One official stated that “the success with Hammer Strike was everybody working together—all the state agencies, the district attorney’s office, code enforcement, law enforcement, the public. It was the first time that I saw everyone come together.”

Operation Hammer Strike concluded on August 26, 2022. During operations, the county completed a total of 2,848 abatements, citations, and completed investigations. The program notched approximately 1,100 raided sites with over 8,600 greenhouses, 1.4 million plants, and 97 tons of processed cannabis, all valued by the sheriff’s department at approximately \$1 billion. After Operation Hammer Strike, the METs were reduced to two teams, consisting of twelve people (three detectives, two sergeants, and seven deputies), thus returning many officers back to the positions from which they had been drawn. These teams represent higher levels of attention to cannabis than any other time in county history, excluding Hammer Strike. Dedicated attention to cannabis cultivation reportedly revealed other hidden crimes, like unreported murders, illegal semi-automatic weapons, human trafficking, and gang presence. During Hammer Strike, firearm seizures increased by 620 percent and justified a new operation focused on gangs, unlicensed weapons, and narcotics called “Operation Consequences.” Paradoxically, the need for Operation Consequences was partly generated by Operation Hammer Strike—the crimes addressed under Consequences may have developed when officers were pulled away from substations to focus on cannabis, one official opined. Substations found themselves short-staffed under Hammer Strike when deputies were assigned to METs, thus impeding their ability to respond to local needs.

By early 2023, one officer estimated that cultivation had declined in the San Bernardino Valley, and the Morongo Valley. Even in Lucerne Valley, where residents helped to initiate Hammer Strike, deputies “were struggling to find anything.” In Lucerne Valley in the second half of 2022, the sheriff’s office served thirty-five warrants, twenty-one nuisance abatements, collected 452 tons of trash, 171 grow structures, and came to agreements with eight property owners to self-abate their properties. Sites that needed abatement in that area were reduced from 250 to eighty-

five. Having been chased out of key areas, some growers set up in the western high desert near the Los Angeles county border, where six men were killed in 2024 in an alleged cannabis trade. The ones who kept cultivating “are the ones with the money,” one officer speculated, as suggested in a 2023 raid on a large warehouse near Barstow. Officers have stated publicly that more cultivation sites would emerge in 2023, though at reduced numbers. They have publicly speculated that growing is largely conducted by immigrants, despite acknowledging a lack of any definitive evidence of cartel involvement (Raasch 2023).

Operation Hammer Strike concluded around the same time that California Attorney General Rob Bonta and other state officials visited the county to discuss illegal cultivation, a trip that coincided with the roll-out of a new statewide, multi-agency program dedicated to stopping unpermitted cannabis cultivation (and other unlicensed market activity) called the United Cannabis Enforcement Task Force, led by CDFW and the DCC. The program, framed as an updated CAMP program (the thirty-year cannabis eradication program run by the state’s department of justice), was not novel for California, but it did mark a coordinated direction of state resources toward addressing unlicensed cultivation. Resources assigned to this effort would ostensibly benefit ban counties as much as permit counties, thus circumventing policies that prohibit state support for law enforcement in counties that do not permit cannabis cultivation. Similarly the state DOJ announced in 2023 the Cannabis Administrator Prosecutor Program to assist localities in fining unlicensed or non-compliant operators. In effect, the state appears to be following San Bernardino’s model in coupling law enforcement with administrative action.

Effects

Bans enforced by law enforcement alone have limited, even counterproductive, effectiveness. County officials generally agreed that enforcement-only approaches to bans had limited efficacy. San Bernardino County has had some version of an explicit ban in place since 2009, yet during this time cultivation has continued to adapt, move, and even proliferate. This mirrors the multi-decade history of the war on drugs, which instituted criminal bans on cannabis: not only has the global war on drugs not stopped cannabis cultivation but, under its sway, absolute drug production has actually grown and spread (McCoy 2004; Corva 2014; Polson 2021; see Background, above). Indeed, since 2019/2020, cannabis cultivation expanded greatly in San Bernardino County, despite a ban. Bans in themselves do not stop cultivation and cultivation appears responsive to factors beyond ban policies. The county’s move from Operation Homegrown, which was primarily waged by the sheriff’s department, to Operation Hammer Strike, which entailed a multi-agency approach, implicitly acknowledged that law enforcement alone was not enough to address unlicensed cultivation (except to move it elsewhere). Since Hammer Strike, they have noted that new tactics—particularly a county focus on holding landlords responsible for cultivation sites—are making it more difficult for cultivators to relocate.

In San Bernardino County and across the state (and as documented in the literature; see Corva 2014), cultivators adapt to new enforcement conditions. The move from the San Bernardino Valley to the high desert, for instance, was a move away from felony charges surrounding stolen electricity. For a few years, growers in the high desert had a comparative advantage over San Bernardino Valley because enforcement was not focused in that area. When enforcement grew in

the high desert, growers adapted by building visual barricades, like fencing, sand berms, and plastic coverings for hoop houses, and by innovating sublease and permitting agreements with hemp operations. The latter strategy of hiding cannabis under hemp permits was reminiscent of the gray legal zone that medical cannabis cultivation operated in for decades—it provided growers a modicum of due process and civil protection, while straight cultivation would bring more severe consequences. After Operation Hammer Strike, cultivators adapted away from highly visible hoop houses either by camouflaging them, abandoning them altogether, by moving indoors and into fixed structures (e.g., sheds and barns), and innovating ways to prevent light from escaping structures. We heard of some growers moving into caves, while others spread out cultivation over personal/medical grows. As long as it is financially viable or necessary for individuals, growers and enforcement will continue in a spiraling cycle of enforcement - innovation - enforcement, etc. One San Bernardino County activist regards this cycle as “baffling,” saying the county has “been trying to find these people [growers] and get them in trouble for God knows how long. [Growers] just keep figuring out a new way...[You] think you’ve got them figured out and no, they’ll figure out a way because they’re resilient.”

Enforcement-only approaches can succeed at displacing cultivation. One deputy was clear that the aim of enforcement was to get growers out of San Bernardino County. (“We’re just trying to chase them to your county. I don’t care which one you go to, just leave our county.”) Growers and deputies both noted that a key reason for the growth of high desert cultivation was enforcement from Los Angeles and Riverside. It remains to be seen if San Bernardino County’s enforcement will simply dislocate growers back to Riverside and Los Angeles, or further into California’s Central Valley. Movement between counties is a version of a more general “whack-a-mole” phenomenon, in which grows are busted only to emerge in a new place or, often, in the exact same place. Some growers will stop cultivating altogether once busted in current conditions, but this has little to do with enforcement, and much more to do with market conditions (see below).

As we explore in multiple dimensions, bans spearheaded by law enforcement can contribute to an “us-versus-them” dynamic common to criminal enforcement. Bans, however, often place cannabis squarely back within the purview of law enforcement, undermining a key tenet of Proposition 64. In San Bernardino County, Operations Homegrown and Hammer Strike built the public perception—often through explicit public relations work by the sheriff—that unlicensed cultivation could only be solved through re-felonization eventually, and significant, new resources to the sheriff immediately. Local, regional, and national news coverage parroted this framing with little independent investigation, giving significant attention to residents who were taken to represent the public, often without any representation of growers or pro-cannabis perspectives or consideration of who is excluded from these publics. When law enforcement reacts to public demand (as many claimed to be doing with cannabis), they ignore how they have helped construct public perceptions through high-profile raids, discussions of cartels, environmental harms, and danger to residents. Significant potential arises for scapegoating and vilification of people and populations that are not able to speak for themselves, namely “criminals” (or, at least, people doing a legal act without a license). Disproportionate focus on cannabis cultivation as a cause of social ills can distract from other causes that are equally, if not significantly more, detrimental to public health and environment. For instance, many activists have drawn attention to the harms caused by the warehouses and logistics industry yet the idea of

a ban on warehouses has been effectively sidelined. A comparison of cannabis and warehouse bans may reveal that the key factor is not harm to communities and environments, but the relative power of the entities under threat of ban.

Bans with multi-strategy, multi-agency, enforcement are more efficacious in stopping unlicensed cultivation, at least in the short term. Acknowledging that law enforcement alone could not effectively enact the cultivation ban, the county responded by activating a suite of land use regulations to pursue cultivation. The county made several important innovations. First, it shifted to holding property owners administratively responsible for grows on their properties, regardless of whether they knew of the activity. This appears to have constricted land supply available to cultivators, and may have helped to close sites where landlords exhibit a willful (and sometimes profitable) ignorance of cultivation. Second, it conducts abatement processes, which ensures that high-nuisance sites, particularly near “sensitive receptors,” are not only raided, but dismantled, and their after-effects managed. This ensures moderate follow-through on raided sites, so that offenders do not erect new grows immediately after. Third, the county pursued environmental felonies, which has shifted the calculus around outdoor cultivation much like electricity-related felonies shifted calculations around indoor cultivation. It has pushed owners, particularly of large, costly sites, into remediation. Fourth, though we could not ascertain the efficacy of the sixth MET, which focused on tracing financial networks, such efforts may be able to detect investment patterns behind individual sites so that they can be addressed at their root by action against people financially responsible for the continued proliferation of sites. Finally, Operation Hammer Strike and the time-limited expansion of county cannabis eradication efforts enabled the sheriff’s office to systematically investigate each site it knew. Each component of this multipronged approach worked to address the shortcomings of other approaches (e.g., abatement teams focused on smaller, proximate sites while the district attorney focused on remote, larger sites; the sheriff could shut down individual sites, while the district attorney aimed to pursue networks).

This multipronged approach still had observable shortcomings. First, cultivators adapted to this new enforcement strategy in ways similar to law enforcement-only approaches. Cultivators moved indoors to avoid environmental felonies. They purchased their own land, sometimes with hemp permits, rather than engage leery landlords. Others moved away from sensitive receptors (and potential complaints) into more remote locales. Follow-up inspections by code enforcement led some cultivators to abandon properties out of fear that they would be busted, charged, or fined upon return, thus making the county responsible for the abandoned property. These adaptations can trigger new negative impacts. More remote sites can increase isolation of workers and provide cover for environmental violations. Abandoned sites become liabilities for counties facing cleanup. Purchasing sites and moving indoors demands more capital, which can lead to consolidation of unlicensed cannabis firms under bigger, better-resourced actors. Without a legal offramp to licensed operation, cultivators and enforcers drive onto a closed raceway of adaptation and evasion. If enforcement were to educate and push cultivators toward licensed operation, it would offer a potential offramp.

Second, the county’s efforts may have been effective at limiting cannabis cultivation, but its benefits ended when operations concluded in August 2022. The county now has more cannabis-focused deputies and several county agencies involved in eradication and ban enforcement, yet

by early 2023 we saw signs of renewed cultivation. Cultivators we spoke with based their cultivation decisions not on enforcement likelihood, but on market prices. One person noted that as of February 2023, one grow store (among many) had already sold clone media for 60,000 potential plants. A deputy confirmed at a community meeting in early 2023 that the department was seeing activity at some new suspected cultivation sites.

Third, few ban counties have resources to mount similar responses. In 2021, San Bernardino had a \$5.42 billion budget (sixth highest in the state), while Napa had a \$450 million budget, Yuba a \$240 million budget, and Siskiyou a \$117 million budget. This gap has only grown, as San Bernardino in 2023/24 had a \$9.4 billion budget. In 2022, according to the California State Controller's office, San Bernardino County dedicated nearly \$1 billion to police and corrections, an amount that eclipses the entire budgets of the other three counties combined. San Bernardino County's innovative approach to enforcing its ban may be impossible to duplicate in counties with more constricted budgets. One senior official expressed doubt that enforcement campaigns, even for a county as well-resourced as San Bernardino, were the most efficacious use of resources, noting that even legal, regulated land uses were hard to regulate and enforce.

Decisions to violate cultivation bans are largely economic, yet financial consequences appear to have limited effect on cultivation decisions. Cultivators we spoke to appeared motivated not by criminality—a desire to break the law—but by economics. One cultivator, an undocumented immigrant, grew cannabis to earn a better wage than that available to farmworkers. He also employed people from Central America to provide them assistance in their pathway to the US. Another indoor grower grew cannabis to secure housing. Another grew in order to fund legal businesses that gave him economic security. Economics affected where and how cultivation occurred. Rising home and warehouse prices in San Bernardino Valley pushed growers to relocate to the high desert, where low property prices attracted cultivation activity. When people had other livelihood options allowing them to leave cultivation, they often did. Yet, few had marketable skills and many were excluded from jobs by their immigration status, lack of formal education, prior convictions, or racial or economic standing. Indeed, of those people we encountered leaving cultivation, the most common reason was not concern over enforcement but lack of profits in then-current market conditions. Those market conditions were not a result of enforcement, but of legalization. The major factor discouraging people from cultivating was not bans or enforcement, but legal market evolution and its trend of falling prices.

The county recognized that economics were critical to addressing cultivation and enforcing its ban when they raised citation amounts and aggressively pursued abatements and fines. One official vowed to “hit them where it hurts”—namely, their pocketbooks. But economic punishment still adheres to an overall logic of enforcement and achieves the same results: cultivators attempting to evade consequences. It may stand to reason that people will calculate economic risks into their decisions to cultivate, but people underestimate risk when they are in constricted economic circumstances (Djawadi and Fahr 2013). This is especially true if people perceive few other legal livelihood options, as is the case when licensed operation is inaccessible. Economic punishment encourages cultivators to either cultivate anew, or pursue other, more risky, options to square their finances. The question for policymakers is if financial consequences are meant to address and fix extant problems and guide people toward better decisions, or if financial consequences are meant to punish. Currently, San Bernardino County's

approach punishes; it remains unclear whether it solves or worsens the problem of unlicensed operation.

Financially based enforcement may encourage predatory revenue-seeking by the government. Over the past decade significant attention has been paid to the degrading effects of persistent and high fines on vulnerable communities (e.g., Bing et al. 2022). The turn to financial enforcement—citations, fines, abatement fees, etc.—may incentivize county agencies to view cultivators as sources of revenue extraction rather than as county residents conducting a legal, if unpermitted, activity in need of correction. Unlike consequences from other land use violations, cannabis related financial consequences were immediate, costly, without abatement periods, and offered little recourse or ability to reverse. When enforcement focuses on correcting a problem, local governments frequently grant flexibility to violators. With cannabis, however, the focus appears to be on immediate financial punishment, rather than remediation and abatement, something that we speculate is only possible because of the stigma surrounding cannabis and those who grow it.

The punitive approach to cultivators can incite impunity among county officials. The sheriff's department demonstrated this when it stopped and seized cash from an armored truck working for a legal cannabis company—three times. After the US Department of Justice returned the cash and the truck company sued the county, the San Bernardino sheriff agreed to recognize the company and to allow it safe passage.

Bans can create new kinds of crimes, vulnerabilities, and inequalities for county residents.

The justification for bans given by officials and locals often centered on protecting residents from criminal elements, yet in talking with cultivators we saw that many of the “dangerous” behaviors they practiced or witnessed were *caused* by bans and a lack of a pathway toward legality. Lack of permits is often the cause for citations, yet bans make it more likely cultivators will avoid engaging government to acquire permits. Violations creating abatement and remediation charges are generated when land occupants are unaware of land use regulations—education they will not get when banned. When enforcement comes, it is as punishment, not education.

Bans create vulnerabilities among those in the cannabis supply chain. Farms may move to remote areas and employ workers under stressful conditions, where events can either work well or badly for workers who are subject to operator/owner whims. At one grow in the desert, for instance, several dozen predominantly Chinese workers were employed at an encampment with numerous greenhouses. The camp became a lively social center and even retail center for workers and locals, yet occasional conflict and violence also was only able to be resolved at the camp—calling police would put livelihoods in jeopardy. Though sites like these may provide some stability and income, especially for vulnerable immigrant populations, workers also had no recourse for lack of payment, sexual harassment/assault, or coercion. Remote locations (and general unregulated status) can provide a sense of impunity regarding the environment. Another farmworker noted that unlicensed farms were actually better, more “caring” places to work than licensed facilities in terms of working conditions (with the exclusion of paid time off), but there was no recourse if wages were unpaid, and no benefits that licensed operations offered.

In recent years, even some cultivators noted increased risk of violence or theft, though such claims were hard to disaggregate from fear over “newcomers” and racial-ethnic biases. Deputies explained to us, some of the violence stems from conflicts that emerge over losses after raids and from thieves pretending to be law enforcement—forms of violence directly traceable to enforcement-first bans. This has made property owners and cultivators more suspicious of “law enforcement,” thus endangering deputies and officials when they are perceived as impostors. This is perhaps one reason eradication teams reported recovering more guns, many unregistered, from grow sites. Without access to state protection, growers may arm themselves. Though deputies expressed a desire to preempt vigilante activity among growers and residents alike, punitive bans may actually be creating the very conditions that encourage vigilantism.

People often spoke of “cartels” as a commonsense reality, yet we found little to support the presence of cartels, as popularly understood. Law enforcement officials have seen an international traffic in workers and money, which often requires organization, yet it is unclear where familial, social, and immigration networks end and “cartels” begin. For instance, one Mexican national grower noted that what is called a “cartel,” is actually just buying and selling networks for labor, product and resources among ethnically or nationally similar people. These dynamics would be unremarkable for legal operations, in which immigrant and racial-ethnic communities rely upon existing solidarities for trusted commercial operation, yet with cannabis they are marked as “cartels.” This Mexican grower in the desert argued that he is providing jobs for friends through his cultivation site and helping people who are otherwise vulnerable and isolated. In the end, he argues, “cartels” are just (in this local case) Mexican, Chinese or Russian people asking, “if everyone else is doing it, why can’t I?” Cannabis trade is just a business enterprise, in this rendering, something one enforcement official seconded, noting that local cultivators who are Chinese nationals tend to have money from abroad but are generally “in it for themselves,” like any other business. More generally, we found that most of the surnames of arrested individuals were either Hispanic or East/Southeast Asian. Yet, these patterns may not reveal anything about populations that cultivate but, instead, indicate who is considered suspicious, investigated, raided, and arrested. When enforcement activity is largely based on public complaints by white, rural populations, it can follow that perpetrators who are noticed are those who do not ethnically and racially “fit.” One deputy noted that it is rare to arrest white growers, and when officers do, the arrested are typically “Beavis and Butthead” types, a reference to their lower socioeconomic and educational status but also to their ostensible harmlessness.

Pressure to produce faster (before enforcement) and to sell at lower prices (due to market and enforcement pressures) can lead to more adulterated products (e.g., cannabis treated with chemicals to hasten harvesting). This can have negative impacts on consumers at informal markets, or “seshes,” particularly in low-income and racialized communities like San Bernardino, where residents struggle to afford legal market products. Seshes provided economic and social security for vulnerable populations able to vend and access cannabis products, yet we anecdotally observed products that appeared to be chemically loaded (e.g., showing sprayed-on terpenes or excessive phosphorus). When there is no pathway to legality, bans create unregulated spaces and practices that can foster new vulnerabilities and dangers for people and the environment.

The narrow path toward allowable cultivation in San Bernardino County is under their medical and personal grow allowances, which technically allows up to thirty plants per parcel, if a permit is acquired for the requisite indoor facility. Yet officials who might permit those facilities were not aware of one person in a county of over two million people that had ever been approved. Since medical cannabis is widely used, and many residents likely grow cannabis personally, this suggests that county stipulations for allowable, permitted personal/medical cultivation are not feasible financially or materially. Those who engage in it anyhow—such as patients and those who cannot afford to purchase at legal dispensaries—are themselves at legal and financial risk because of an onerous local permitting process. Even among people knowledgeable of cannabis and its cultivation, there was widespread confusion over what was allowed. Many still believed that 99 plants were permissible legally, a standard that has not been in place in San Bernardino for over a decade. This speaks, among other things, to the county’s lack of public education and messaging that welcomes cultivation under specific conditions.

Finally, bans intensify competition for participation in the legal market by constricting possible pathways. As of 2023, only a handful of cities in San Bernardino had established a regulatory system for legal participation. Of those that were established, two were explicitly troubled by pay-to-play corruption, as occurred with Adelanto’s mayor (now imprisoned) and was alleged through multiple claims against San Bernardino’s mayor (Goffard 2023; Nelson 2019). Bans created conditions in which entire regional markets were available for capture by whomever won city licenses (as a permit city, Adelanto, for example, could capture much of the high desert market). Bans intensified competition for these licenses, which created opportunities for corruption as officials appealed for contributions. If one of the rationales for stringent ban enforcement is to raise costs to cultivators so they will enter the legal market, then constricted, expensive, or corrupt legal markets make exit from the unlicensed sector difficult, if not impossible, for most.

Re-felonizing cultivation may intensify the deficiencies of bans and prohibition. Officials from San Bernardino County have been at the forefront of advancing bills at the state level to re-establish felony charges for cannabis cultivation. San Bernardino supervisors officially endorsed those statewide efforts in 2021, and throughout fieldwork officials and residents framed the lack of felony consequences for cultivation as a fatal flaw in California legalization. Misdemeanors only carried a \$500 fee for violations, and a maximum of six months in jail. Financially, a \$500 fine, the thinking went, was inadequate to divert cultivators from cultivation when compared with the thousands of dollars they would make for cultivating. The wrap-around, multi-agency response of citations, fines, abatements, fees, and the targeting of landlords made cultivation much more expensive than the \$500 misdemeanor amount allowed. Meanwhile, the sheriff’s department strategy of pursuing felony charges—whether through electricity-related charges or water diversion violations—attempted to re-establish felony consequences for cultivation under indoor/medical and outdoor/adult-use practices, respectively. In other words, San Bernardino County, whose residents approved Proposition 64 by 52.5 percent, has been finding ways to re-felonize cannabis cultivation in opposition to Proposition 64, which recategorized cannabis cultivation as a misdemeanor. Similar bills at the state level aim to create new classes of felonies related to environmental violations when relating to cannabis. Re-establishment of felony charges would likely push cultivation deeper underground, with negative impacts on people and ecologies, as it did under prohibition. As described above, it would double down on the

deficiencies of bans and prohibitions by issuing forms of punishment that, at best, redistribute the problem of unlicensed cultivation, rather than treat or solve it.

While re-felonization of cannabis cultivation does not appear to be legislatively feasible, the rhetoric surrounding re-felonization and “criminals” enflames oppositional “us-them” dynamics between residents and among constituencies. Throughout fieldwork in San Bernardino County, we were aware that discourses among residents merged ideas of cartels, Mexicans, immigrants, criminals, human trafficking, environmental pollution, and cannabis cultivation into a single expression of threat and danger to communities. One law enforcement official described enforcement efforts as akin to “Mogadishu,” where the US military fought against Somali insurgents in what was then the most deadly event involving US troops since the Vietnam War. The us-them rhetoric led to everyday forms of discrimination and suspicion, and, according to residents and officials, threatened to lead to vigilante action, a pattern we found in other places. The rhetoric targeting cannabis “criminals” often played upon local fears of community-racial change, resource depletion, and struggling economies. It scapegoated cultivators as responsible for these broader troubles, and presented punishing retribution as the only solution.

More generally, the push to re-felonize cannabis cultivation exhibited local resistance to voter-approved state law supported by a majority of county voters, and a desire to skirt state voter’s determination that cannabis should not be treated as a felony. According to public statements by Supervisor Paul Cook in the high desert area, San Bernardino County wanted to highlight environmental aspects of unpermitted cultivation because they believed this would appeal to (what he perceived as) pro-cannabis (and presumably more liberal) legislators and agencies at the state level. District Attorney Jason Anderson, the chief prosecutor of environmental crimes in San Bernardino County, said, “My office will outmaneuver the legislators in Sacramento,” casting the state as partial to cannabis and blind to local needs, and his office as the defender of local residents and the environment. The aim of rigid enforcement plus significant consequences was to make the county “the most inhospitable place” for cultivators, according to the sheriff, despite messages sent by county voters that cannabis should be welcomed into state and county life.



Illustration 4. Several cities in San Bernardino, such as Adelanto, have embraced permitted cannabis cultivation as a driver of economic development. Just over the city boundaries, greenhouses that contain cannabis have been a major target of the San Bernardino Sheriff Department’s “Operation Hammer Strike,” which raided approximately 9,000 greenhouses from September 2021 to November 2022. (Photo by Petersen-Rockney, 2022.)

Table 6. Key San Bernardino County Actions Regarding Cannabis Cultivation

Date	Key county action	Purpose
April 2011	San Bernardino County Ordinance 4140	Banned medical marijuana dispensaries and outdoor cultivation of marijuana in the unincorporated areas of San Bernardino County
September 2016	San Bernardino County Ordinance 4309	Banned all commercial cannabis activities, which includes cultivation, defined as any activity including the planting, growing, harvesting, drying, curing, or trimming of cannabis
2017	San Bernardino County Ordinance 4329	Provided exemption for privacy caregivers affiliated with licensed facilities
2019	San Bernardino County Ordinance 4360	Updated cannabis ban to make cultivation a misdemeanor in county lands
2019	Hemp Registration	County begins to register hemp cultivation sites
Late 2020	Operation Homegrown	Sheriff cannabis eradication campaign
June 2021	San Bernardino County budget allocation	Designated \$10.4 million in funding to address unpermitted cannabis cultivation and authorize new Marijuana Enforcement Teams
August 2021	Operation Hammer Strike	Multi-agency cannabis eradication and abatement campaign, led by Sheriff
Fall 2021	San Bernardino Urgency Ordinance (Fall)	Increased fines (by five-to-six times) for unpermitted cannabis cultivation, with graduated fines for larger plant numbers
Dec 2021	San Bernardino Ordinance	Expands abatement and clean-up processes and capacities
2022	San Bernardino Ordinance 4444	Establishes regulatory system around hemp.

Yuba County

Background

Located in Northern California, Yuba County is bordered by the Feather River to the east and the Sacramento River to the west and is bounded by the counties of Butte, Sierra, Nevada, Placer, and Sutter. Its diverse geography includes both flat agricultural lands and the foothills of the Sierra Nevada mountain range, as well as the Sutter Buttes. With a rich and varied landscape, it is renowned for being the most biodiverse county in the contiguous United States, with a documented 1,968 native vascular plant species per 10,000 square kilometers and natural landscapes spanning forests, grasslands, riparian areas, and meadows. At 1,670 square kilometers, Yuba ranks fifty-second out of California's fifty-eight counties in area (Wikipedia 2024).

Yuba County's population of 81,575 includes large white (52 percent) and Hispanic/Latino (32 percent) contingencies. It ranks as the nineteenth least populous county in California and has a density of only 129 residents per square mile, about half of the California average of over 250 (Wikipedia 2024). The median price of homes sold in 2024 was \$431,250 in Yuba (Redfin Yuba County 2024) compared to nearly \$900,000 across the state (California Association of Realtors). One interviewee described Yuba as "one of the poorest, pill-dispensing, low property-price counties in the state."

Agriculture has long been a big part of the county's economy, primarily rice, tree crops (walnuts and plums), forage (hay, alfalfa), and almonds (Wikipedia 2024). According to one interviewee, cannabis historically was a cash crop that subsidized other forms of agriculture. Currently, significant swaths of agricultural land are being developed as residential real estate. Housing development since the onset of the pandemic has become a key driver of local politics, with thirteen active developers in the area and 500–600 new homes being built each year, according to local officials. The Beale Air Force Base near Marysville is the largest employer in the county and in the Northern California region. The Yuba Water Agency is also an important player in Yuba's economy, and water politics is deeply intertwined with cannabis politics and evolution (box 4).

Box 4. Cannabis, Corruption and the North Yuba Water District

The history of cannabis politics and evolution in Yuba County is tightly intertwined with water politics. In operation for more than 60 years, the Yuba Water Agency's mission is to reduce flood risk and ensure a sustainable water supply for the county, to generate hydroelectric power, protect fish habitat protection, and support enhancement and recreation at New Bullards Bar. The Yuba Water Agency provides wholesale water from the Yuba River to eight agricultural water purveyor member units: Brophy Water District, Browns Valley Irrigation District, Cordua Irrigation District, Dry Creek Mutual Water Company, Hallwood Irrigation Company, Ramirez Water District, South Yuba Water District, and Wheatland Water District. All of the county supervisors serve as members of the board, in addition to two at large members. However, the North Yuba Water District (NYWD), which allocates water to users in

Yuba’s foothill region, is not a member unit of the Yuba Water Agency, instead operating autonomously. During our fieldwork, NYWD was characterized as dysfunctional and shady, with multiple allegations that it was selling water instead of delivering it to its irrigation customers.

Problems and complaints seem to date back to 2012, when Jeff Maupin was hired as manager of NYWD under questionable circumstances, including an alleged “backroom deal,” documented evidence that Maupin lied about having a bachelor's degree in business administration, and a record of Maupin having been fired from two previous water districts. Upon taking the job, Maupin fired all eight water patrols and NYWD stopped delivering water to its irrigation customers despite a regular supply of irrigation water to these customers every year prior. Some frustrated NYWD customers observed “willful” neglect of water leaks and cannabis-related water theft from the district, with local media (*The Appeal Democrat*) verifying grow sites near NYWD and the logistical ease of stealing water from the open ditches. As one farmer noted, “Yuba’s rich in water, but there’s no access.” Another interviewee reflected on the mismatch between lack of water delivery and supply: “We're very rich in water. The water is right there.” While not receiving water deliveries from the NYWD did not seem to harm most farmers because they could still pump water from the ground wells,¹¹ it was “catastrophic” for ranchers because of the high cost of hay, a farmer advocate lamented.

Interviewees with expertise in Yuba’s hydrologic and water policy and management landscape said anti-cannabis justifications that enrolled arguments of local water scarcity were unfounded. Due to aggressive management of water resources for many decades, and the unique hydrology of the foothills, the county, local experts asserted, has an abundance of water. In fact, there is so much water that Yuba is a source for other regions, selling considerable water to users outside the county. Additionally, Yuba’s water management has become a model for the state. When California passed the Sustainable Groundwater Management Act (SGMA), the state recommended local basins look to Yuba’s water management systems as exemplary. Additionally, rice farmers in Yuba doubly benefit from abundant and cheap water, which then allows them to attract four times as much in government agriculture payments as farmers in our other study counties, mostly through wildlife programs where farmers are paid to flood their fields at certain times of year for migratory bird habitat.¹²

Instead of water scarcity, according to one longtime resident of Oregon House in his 2022 letter to *The Appeal Democrat*, the problem was “grave mismanagement, abuse and possible corruption” (Perla 2022). One farmer advocate interviewee concurred:

The indication that I have is that there's collusion between the general manager of the water district, that he's making money by illegal sale and then he, in a very horrified way, can tell the media that the water is being stolen so he gets his bread and butter from sales.

¹¹ As a result, some wells are in trouble, according to multiple sources.

¹² California farmers on average receive around \$20,000/year in government payments, whereas Yuba farmers receive \$80,000/year on average.

While Maupin claimed to *The Appeal Democrat* that cannabis growers were the main culprit of water theft and the undocumented diversions of 50–60 percent of the district’s water, his critics claimed that instead the “theft” was actually collusion between Maupin and large cannabis growers with Maupin being “paid off” by cartels. Critics also claimed NYWD was making secret backroom deals to sell water to Central Valley water agencies, creating a false impression of local water scarcity. And drawing suspicion to his motives, during Maupin’s tenure, NYWD consistently refused Yuba County Water Agency's offer to pay 100 percent of a study to see how to stop losses and distribute water, with no compelling rationale. When we asked a current county supervisor why NYWD had, for the most part, not been supplying water to its customers, he replied “That's a good question. If you could answer that one, if you could research that one, we'd really be happy because nobody can figure out why. They won't really talk to anybody, really. They've just gone basically rogue.” This county supervisor did not believe what he called “conspiracy theories” about NYWD and Maupin, instead noting:

I just think they've decided that's what they're going to do, and they're not going to listen to anybody else. They’re not going to negotiate with anybody else. They won't talk to the Yuba water agency anymore. They won't talk to South Feather anymore, and they have tons of litigation on both sides. They're suing and they're being sued.

In recent years, the board of supervisors has shifted away from a board that critics claimed had been “owned” by Maupin. And in November 2022 Alton Wright was elected as the new North Yuba Water District Division 1 Director, completing a clean sweep of the board, with every incumbent North Yuba Water District Director being ousted. And with a new board and a new general manager of Yuba Water Agency, NYWD finally restarted water deliveries to its irrigation customers in 2022–23. How this shift in water governance will affect the discourse around cannabis cultivation remains to be seen.

Cannabis Policy Dynamics and Evolution

Like many places in California, cannabis cultivation activity has long occurred in Yuba County and continues to this day, with a zenith of cultivation activity in the early-mid 2010s under Proposition 215, according to multiple informants. The legacy cultivation community in Yuba is concentrated in the Sierra foothills on marginal land that was relatively inexpensive; and with little agricultural history, this land is now especially vulnerable to climate change-driven wildfires and droughts. Throughout our interviews, the legacy community was often described, by themselves and others, as “hill people,” and was comprised of an earlier wave of “back to the land” migrants and, after the county passed a permissive medical cannabis ordinance in 2012 that explicitly allowed cultivators to grow up to ninety-nine outdoor plants, young families primarily from the North Coast who moved. Unless otherwise noted, information presented in this section has been obtained from our interviews with a wide variety of county-based stakeholders.

The proliferation of cannabis grows after the enactment of Prop 215 led to the Yuba County Board of Supervisors (YCBOS) passing Ordinance 1518 in May 2012, which established cultivation limits based on parcel size, from six mature plants on less than one acre to twenty-five mature plants on over twenty acres. Soon thereafter, a coalition of medical marijuana patients, caregivers, and collectives filed a lawsuit against Yuba County to stop Ordinance 1518, claiming that it constituted a de facto ban on medical marijuana collectives, cooperatives, and dispensaries, according to the filing. After successful negotiations to settle the lawsuit, which was brought by attorney Jeffrey Lake on behalf of the Yuba County Growers Association, Sam McConnell, Lew Neal, Kathie Thelen and their patient collectives, the YCBOS passed a revised version of the ordinance (1522) in December 2012 with a vote of four to one, making Yuba County one of the most cannabis-friendly counties in the state. Ordinance 1522 allowed medical cultivation on fenced and occupied parcels increasing the allowance to allow ninety-nine plants on parcels over twenty acres. The increased cultivation allowances were accompanied by safety-related requirements and severe financial penalties for noncompliance. Lake lauded the ordinance’s balance between protecting public health and safety and legally protecting the interest of patients to have safe access to their medicine, and suggested that it should be a model for other counties.

Not everyone was happy with Ordinance 1522, however. Many cattle ranchers and local rice farmers were, according to informants, “envious” of the steep profits made off of growing cannabis and funded opposition to the ordinance. Rice farmers, who rely on deep water wells, and other agricultural irrigators engaged in a media campaign stating that cannabis would use all the water and the wells would grow dry.

The passage of Ordinance 1522 spurred a burst of cultivation in the county, including the expansion of cultivation from the remote hills low-income residential areas in the valley (near Linda and Olivehurst), as residents, including farmers, saw an opportunity to supplement their income. Yuba’s liberalization of medical production, combined with its fertile soils and plentiful water, also attracted an in-migration of growers from both California’s North Coast and from around the world, with one interviewee noting that growers arrived from Israel, Russia, Korea and the East Coast. Two interviewees estimated that about 75 percent of the parcels in Yuba County had cannabis growing on them during that period.

The increase in cultivation and the influx of outsiders led to many complaints by locals related to the reality or perception of smell, crime, and diversion of water. Some interviewees decried the lack of sufficient enforcement capacity after Ordinance 1522 was passed. There were only two code enforcement officers dedicated to cannabis during the April–October season in 2013. And many locals were unhappy that outsiders came to buy up their land and to “contaminate” their community, their water and their soil, according to one interviewee.

Capitalizing on this anti-outsider sentiment, in 2014, Randy Fletcher, an ex-sheriff’s deputy, ran for supervisor in YCBOS District Five on a staunchly anti-cannabis, pro-enforcement platform justified by concerns about the drought, but peppered with moralistic discourse about how “marijuana” was directly responsible for the deaths of four of his family members, according to one of our key informants. In 2015, just after he was elected and in partnership with conservative political activist Buck Weckman, a member of Families Against Cannabis Trafficking, Fletcher led the cannabis ban effort. One interviewee said Weckman was “doing [Fletcher’s] dirty work,” with personal and family reasons for wanting a county ban. Rallied by Fletcher and Weckman, the board unanimously approved the first reading of a revised cannabis ordinance to decrease the number of allowable plants from up to ninety-nine to twelve and to ban all outdoor cannabis cultivation despite vocal and vehement opposition. Then in March and April of 2014, the county passed emergency ordinances 1538 and 1542 prohibiting outdoor cultivation of medical cannabis, regulating the structures within which it could be cultivated, and establishing a registration process. The ordinances criminalized cannabis cultivation by putting the county sheriff in charge of enforcement, making it easier to arrest people for offenses.

Again, members of the Yuba County medical cannabis community, specifically the Yuba Patients Coalition (YPC), a political action committee,¹³ filed a lawsuit against the county, claiming the ordinances were unconstitutional and discriminatory. Some cannabis activists tried to argue that Yuba’s cannabis cultivation was critical for supplying patients in the Bay Area, but this argument allegedly killed momentum, since ties to outsiders, particularly those in the Bay Area, were not looked upon favorably. Later that year, the YPC spearheaded an unsuccessful effort to recall District One Supervisor Andy Vasquez based on “allegations of corruption, harm to the community, irresponsible use of power and harassment,” (Ballotpedia 2015), as well as hypocrisy that he voted for Ordinance 1538, justified in part by concerns over cannabis’ use of water, while at the same time agreeing to transfer more than 6,000 acre-feet of water to the cities of Dublin and San Ramon, in Alameda and Contra Costa Counties, respectively, despite drought and urgency findings.

And in another response to Ordinance 1538, pro-cannabis activists put two unsuccessful measures on the June 2016 ballot and one on the November 2016 ballot: Measure A, “The Yuba County Medical Marijuana Cultivation Act of 2015,” Measure B, “The Patients Access to Regulated Medical Cannabis Act of 2015,” and Measure E, “Cannabis Cultivation & Commerce.” Additionally, although Proposition 64 was approved statewide in November 2016, the majority of voters in Yuba County voted against it. Measure A, which aimed to overturn the

¹³ When the 2015 ban went into effect, cultivators began organizing politically, forming the Yuba Patients Coalition, which had a board and grew to about 300 members at its height. The group met regularly, registered voters, and put two cultivation measures on the 2016 ballot.

2015 outdoor growing ban by permitting residents to grow six outdoor plants on properties of less than an acre and up to sixty plants on parcels twenty acres or larger, was backed by the Citizens of Solvency, a group of licensed stakeholders who had a stake in the sector, including growers, grow stores, dispensaries, and the YPC. Measure A would have imposed county fees of \$40 per plant on outdoor gardens, generating \$1 million in annual revenues for local government, and would have limited nuisance complaints on marijuana gardens to people who live or work within six hundred feet of cultivation sites. Divisions that emerged between local farmers supporting the measure and well-funded dispensary stakeholders largely from outside the county hampered efforts to promote Measure A. Measure B, which would have allowed one medical dispensary for every 20,000 Yuba County residents, was spearheaded by the Yuba medical marijuana group Committee for Safe Public Access to Regulated Cannabis. It was hurt, however, by not having any provisions for growers. Measure E, which would have provided a regulatory system to meet the requirement for local permit, license or other authorization in California's Medical Marijuana Regulation and Safety Act, was spearheaded by YPC and also failed, with some describing their perspective that internal discord within the YPC coalition led to a bungling of the campaign. All three measures were publicly opposed by the Yuba County District Attorney, the Yuba County Sheriff, a retired Yuba County Health Officer, a retired Yuba County Sheriff, and Yuba County's Chief Probation Officer. When these cultivation measures failed by a thin margin of votes, many growers said they were defeated and burnt out, and many decided to move to Nevada and Calaveras Counties with the hopes of establishing legal cultivation businesses. Others remained, trying to stay under the radar (Ballotpedia 2024).

In 2016, three YCBOS seats changed, and the two supervisors who opposed the cannabis ban were voted out of office largely as a result of their support of a controversial housing development project, not because of their views on cannabis cultivation, according to one interviewee. This shift towards pro-ban sentiment on the YCBOS paved the way for more ban momentum. In April 2017, citing an urgent need for the preservation of public health, safety and welfare, the board of supervisors passed Ordinance 1563 prohibiting outdoor medical and non-medical cultivation, limiting personal use gardens to six indoor plants per parcel, irrespective of the number of residents, and establishing parcel/structure requirements. Then in May 2017, the board passed Ordinance 006-17 as an emergency interim ordinance prohibiting all outdoor nonmedical marijuana cultivation uses in all zoning (Ballotpedia 2024).

Just after Yuba County banned cultivation in May, a former county narcotics officer was convicted on federal charges involving trafficking nearly 250 pounds of marijuana to Pennsylvania, creating chaos for the county court system, as the officer had been involved in more than sixty drug cases and prosecutions (Hecht 2020). The negative press associated with this enforcement corruption was drowned out, however, by an incident in August 2017. Two deputies were shot and wounded and one suspect killed in a shootout that occurred when officers responded to a conflict at an illegal grow site at Sugarleaf Rastafarian Church in Yuba County, which was founded by Heidi Grossman-Lepp and her husband Eddy Lepp in late 2016 to organize cannabis farmers in the county under the legal umbrella of federal religious protection (Hecht 2020). Tensions were heightened further when, in October 2017, police raids in the county led to the arrests of Chinese nationals involved in "sophisticated operations" growing cannabis, according to Thomas Yu, a longtime Asian gang investigator with the Los Angeles County Sheriff's Department (Leavenworth 2024).

In November 2017, in part as a response to the shooting at Sugarleaf, the board of supervisors passed Ordinance 1568, which prohibited all commercial cannabis activities, defined cannabis cultivation as a nuisance, identified landowners as responsible parties for abatement, and expanded enforcement capacities, including “enforcement without warning.” Supervisors Andy Vasquez, Gary Bradford, and Randy Fletcher voted to adopt the ordinance banning cultivation, possession, manufacturing, distribution, processing, storing, laboratory testing, packaging, labeling, transportation, delivery or sale of cannabis or cannabis products. All other activities involving cannabis not considered for personal use were also prohibited in Yuba County less than two months before Proposition 64 would go into effect (Ballotpedia 2024). A legal challenge, alleged by an interviewee, found the ban violated a 1950s law that landowners could not be held responsible for more than 20 percent of assessed fines against their tenants, leading landowners to begin suing the county, according to an informant.

Despite the county-level bans, Yuba County Code Enforcement was given no additional staff or funds to enforce bans. As a result, on December 28, 2017, with little capacity and desiring federal support, the Yuba County supervisors proclaimed a local emergency around the proliferation of illegal cannabis cultivation. Less than a week later on January 3, 2018, the day after California launched its first legal sales of recreational cannabis, Yuba County officials gathered on the steps of the state capitol to criticize the state's cannabis regulatory system, saying it was not protecting them from environmentally destructive illegal grow sites. Officials handed out flyers with the slogan “dope damage” that had pictures of dead animals and water being diverted to an illegal grow site, according to a political consultant we interviewed. In the midst of anti-cannabis action by the YCBOS, in March 2018, the county’s first medical dispensary, River City Phoenix, opened in the City of Marysville.

The following two summers (2018 and 2019) marked the height of zealous county enforcement efforts. Yuba County, along with Siskiyou, Trinity, and Calaveras Counties, enlisted the California Army National Guard and its counterdrug task force to increase enforcement against cultivators in all four counties. Blackhawk helicopters circled the foothills region during three- to four-day operations, starting early in the morning and targeting multiple sites. The biggest operation was in Yuba County, when the team invited VIPs from the state to demonstrate how enforcement money was being spent (CDFW interviewee). In the summer of 2018, the team raided sixteen sites in the unincorporated Oregon House area, which netted over 6,000 plants, nine arrests, forty pounds of finished butane hash oil, fourteen water quality violations, fourteen water rights violations, and eighty-eight Department of Fish and Game Code violations, which carried the potential to bring felony charges against cultivators. These busts were focused on environmental concerns, such as water diversion from creeks and chemicals harmful to wildlife, as well as potential sales over state and national borders. One farmer advocate recounted the terror of these big operations, which affected good, “really gentle” people, such as one exemplary grower and his wife, who “probably still has PTSD” from the helicopters that circled her home and federal agents nearby with submachine guns. In an act of resistance to raids he believed to be “ad hoc” and based on faulty evidence, one grower who had been illegally raided and subsequently won his claim against the county, decided to try to entrap code enforcement by growing tomato plants to see if he would get “busted” again, this time for a grow that resembled, but was not, cannabis. Code enforcement took the bait and raided his property, which he

recorded to demonstrate the inefficiencies, unfairness, and lack of training involved in the raids. The resulting videos were widely viewed and the incident became locally known as the “Great Yuba County Cannabis Caper,” shared a key informant.

Despite these big operations, corruption within county-level enforcement ranks continued to surface. An October 2018 lawsuit against the county alleged that a Yuba County official destroyed property at a forty-four-acre grow site in the unincorporated town of Dobbins on grower Justin Green’s property. Green had attended a code enforcement abatement hearing before the Yuba County Board of Supervisors at which he promised to remove excess cannabis plants on the property, and after which he took the necessary steps to comply. Code enforcement, however, missed his two scheduled inspection appointments, instead arriving at his property at an unscheduled time when Green was not there. The sheriff’s deputies and fire personnel searched and ransacked his property, causing hundreds of thousands of dollars in damage.

In light of hyper-criminalization of cannabis growing during this period, in 2018 Alton Wright, a moderate democrat with a background in education, decided to run against Fletcher for the district five board seat, aiming to bridge the divide between conservatives and the growing community. He argued that the ban was not so much about cannabis as it was about property rights, suggesting that the government had intruded to an excessive point. Cannabis growers helped fund Wright’s campaign and Wright became locally known as the “pot guy.” Wright won the primary by fourteen votes but lost the election.

The following March (2019), the YCBOS continued its anti-grow efforts, declaring a temporary moratorium on industrial hemp cultivation within unincorporated areas of Yuba County in Ordinance No. 1581. And summer 2019’s enforcement operations seized more than 5,000 marijuana plants and arrested or cited ten people during a three-day bust of illegal cultivation sites in the foothills. Twenty-eight fish, wildlife, and water violations were found, and violations totaling over \$15 million in potential fines were noted by state agencies. Around this time, a lot of growers left the county. One grower characterized 2019 as a period of exodus:

At this point. People are like, ‘the market is going down.’ We have people leaving the country. We had a lot of Israelis go back to Israel also saying, ‘this is not working.’ The immigrants, yeah, were not coming back. Then it went down again. More people are getting the tags on their doors. More people are getting rolled.

Enforcement activity quieted once the COVID pandemic hit, with a move towards softer enforcement of local and small grows, and a greater focus on large, clearly illegal grows. One grower noted that around this time it became possible to fly under radar and avoid enforcement with less than ninety-nine plants.

Due to the proliferation of illegal cannabis cultivation, in 2020 and each subsequent year thereafter, the county board of supervisors has adopted and continued to renew a resolution proclaiming a local emergency. In 2020, the Yuba County Sheriff reported the successful eradication of more than 29,000 cannabis plants from illegal grows that he claimed were associated with drug trafficking organizations. And in November, voters in Marysville passed Measure N, a tax on cannabis businesses, generating an estimated \$300,000–\$470,000 per year

in support of municipal services including law enforcement, fire services, roads, and recreation. With the overall downturn in enforcement, a law enforcement officer described “Mexican cartels” moving to the foothills to grow, offering landlords large sums of cash to use their back parcels for a few greenhouses. As explained by a code enforcement officer, because many of these valley parcels are long and narrow with little land contiguous to roads, they were ideal lots for greenhouses to go undetected, with landlords assuming the risk of being responsible for remediation and fines if they were busted. On August 4, 2022, Yuba-Sutter Narcotic and Gang Enforcement Task Force (NET-5) conducted a traffic stop with the assistance of the Yuba County Sheriff’s Department and searched, arrested, and booked a known member of the Norteno criminal street gang on charges of possession and transportation of controlled substances for sale, as well as firearms-related charges. And in September 2023 raids continued with the county’s marijuana eradication team destroying about 2,000 marijuana plants in Dobbins, in the Yuba County foothills.

Yuba County Sheriff Wendell Anderson confirmed in an interview that cartels and illegal grows have been an issue in the foothills for several years, although they are hard to enforce because the workers are merely hired help, whom one interviewee characterized as squatters who come into the county to support the cartels but are not invested in the community. A pro-cannabis farmers’ advocate concurred:

The general sense is that the people who do remain, and I think there are a lot of growers here, I just never see them. There are not less people. They're behind fences. They've got dogs, they're stealing water, and as soon as they've made their money, they leave, with a horrible mess behind.

Recently, with the help of the US Drug Enforcement Administration, the county was able to track several indoor growing operations to Chinese drug traffickers (Summa 2022). Similarly, an enforcement officer we interviewed noted that Yuba County now has fewer but bigger grows, and that enforcement is focused on grows of more than one hundred plants. Code enforcement’s staff is down to just one officer, as recruitment for the job is difficult. The board of supervisors has also shifted its focus away from cannabis to wildfires and development noted a key informant.

Currently, the April 2017 ban ordinance is still in effect and many legacy growers have moved to counties friendlier to cannabis cultivation. While code enforcement used to begin fining cultivators and property owners on day one, an abatement period now allows growers to address the issue before fines begin. One cultivator said that code enforcement will even let good, small-scale farmers harvest before cutting their plants. Another cultivator described an experience in 2020 in which a fire burned across his land and the police came to check that he and his cows were okay, ignoring the twenty-six plants and one hundred pounds of processed cannabis on his farm. This much softer approach resonates with Yuba County’s agricultural commissioner, who believes targeting a pseudo-legal crop is a lower priority for law enforcement when there are real issues like “people killing each other.” In terms of personal use, the ordinance in effect requires that individuals have a permit, are growing for medicinal or recreational personal use, grow a maximum of six plants, and grow indoors in a securable, electrified unit that is screened and ventilated with a filtration system. Overall, cannabis seems to be out of the political spotlight in

Yuba County for now, and with the shift in the composition of the YCBOS, including Supervisor Fletcher's retirement, speculation abounds that Yuba County will reverse its ban in a few years, rendering Yuba a cannabis-friendly county once again.

Effects

Bans can spur in- and out-migration. Yuba County saw an in-migration after the 2012 liberalization of cannabis. After the ban, however, since bans typically hurt more marginalized growers, and since Yuba County seems to have less-resourced growers, the "water" justification for cannabis bans, pushed by more-resourced rice farmers and ranchers jealous of cannabis farmers making so much more money when crop and cattle markets went down, became an exclusionary mechanism. After the ban, some growers who had the resources to do so left for Nevada and Calaveras Counties. At the same time, the bans caused temporary in-migration of what many called "bad actors," large cartel-type operators and associated low-wage workers with little commitment to the local community or economy.

Bans can spur an enforcement treadmill and enforcement culture. The early period of cultivation bans in Yuba (2015–2020) highlights the perverse consequence of bans creating an enforcement treadmill, whereby cultivators and law enforcement become locked in a running cycle, with enforcement encouraging larger grows that, in turn, take more enforcement capacity, encouraging even larger grows, invoking comparisons to a "whack-a-mole" game. One interviewee explained how this ban-induced shift created other problems: as cultivators and others had to pay their bills, many teamed up with cartels on larger grows, leading to a marked increase in labor trafficking. The crackdown that targeted large grows also ended up hurting small farms, which were often the misguided targets of enforcement operations aimed at large grows. The shift from a long history of mostly positive community norms around cannabis cultivation towards an enforcement culture was largely the result of politics and the influence of just a few key anti-cannabis individuals in positions of power, like Supervisor Fletcher. In this light we can understand the Yuba County cannabis ban as a political and ideological tool largely divorced from longstanding county norms and context.

Bans can result in community disembedding. Historically, Yuba County legacy cultivation communities consisted primarily of white people living in or near poverty. Many interviewees described legacy growers in Yuba as holding conservative, independent, and anti-government ideologies, relying on neighbors and trusted local support networks. Legacy cultivators described families who did not vote or engage in electoral politics and were marked by generational poverty. For decades, families eked out a modest livelihood from growing cannabis, often grown using organic practices and for medical use. As several people we interviewed articulated, including county officials, Yuba growers were poor, and many could not afford to become legal growers, even if it was an option. Under Proposition 215, medical cannabis cultivation played a crucial role in economic livelihoods and community vitality in the region. Growers often described a desire to return to the legal gray-area under medical cannabis regulations, which fostered community-network building and medical patient access through networks of trust and reciprocity, and limited monopoly formation, which kept cannabis prices high enough for small-scale growers to meaningfully supplement family incomes. Legacy cultivators described a few bad actors who made it "hot" for other growers, but mostly medical cultivation in Yuba County

created a trust-based community, loosely networked, of small cottage growers who set community norms. A common theme in our interviews was a move toward more individualism and away from a community rooted in trust and reciprocity resulting from both the 2015 county ban and the enactment of Proposition 64, the effects of which started being felt in 2016.

Under the relatively steady policy environment of Proposition 215, families would establish lives and communities in the Yuba County hills. Post-ban cultivators became engaged in high stakes production as regulations and enforcement tactics changed rapidly. Since the ban, interviewees noted, more growers now come to the remote region only for a growing season, and then they leave. Instead of cooperation, cultivation is now marked by competition. The legacy community no longer has the relationships, trust, or power to set norms, like organic production. One grower described a post-ban “compliant market,” which is not about norms and choices and community, but instead is about rules and state stigmas developed with “the worst possible actor” in mind.

Compounding the effects of the county ban have been the price effects stemming from the enactment of Proposition 64, after which the legal market contributed to oversupply, causing a major price drop in 2017, prompting some growers to move to more grow-friendly counties, and others to drop out altogether. One sheriff’s deputy noted that the regulated market was reproducing the age-old quandary of overproduction, necessitating people to work more, spend less time with their families, and live a less happy life. One grower explained that the “flavor of growing has changed culturally” to one that, post ban and under Proposition 64, is now inconstant, splintered, and shaded by the legal market. The ban and the cost-price squeeze supplanted norms of good stewardship with an increasing disregard for neighbors, clearcutting and terracing of the land, and water theft and mismanagement. Many who would like to grow using ecological practices no longer have the financial resources to do so. One grower told us that the price is so low, “no one cares about organic,” even those growers who had been working toward organic certification. He believed if the ballot had passed and people were able to grow, they could have done the work of building norms and of establishing and protecting good, acceptable, and accountable ways of growing. Now, with a ban, there is no room for norm formation. A CDFW enforcement officer concurred with this sentiment, noting that with a ban, the department has no way of building trust or educating growers. CDFW can only enforce.

Despite the negative effects of the county ban and the glut-induced price drop on community norms, a few legacy growers persist in the hills, trying to hold on to their culture of self-reliance: “Culture lives in the hills,” one legacy grower told us. “You can buy it out or burn it out but otherwise it will stay rooted and immune to change.”

Table 7. Timeline of Key Events for Yuba County Cannabis Cultivation

June 1, 2012: Yuba County Ordinance 1518 declares most medicinal cannabis cultivation to be a public nuisance and object of regulation. Establishes limits for cannabis cultivation calibrated to property size and growing type.

July 2012: A coalition of medical marijuana patients, caregivers, and collectives files a lawsuit against Yuba County to stop Ordinance 1518.

March 10, 2015: Yuba County Urgency Ordinance 1538 prohibits outdoor cultivation of marijuana, regulates the structures within which it can be cultivated, and establishes a registration process.

March 19, 2015: Members of the Yuba Patient Coalition file lawsuit against the county, claiming Yuba County's Ordinance 1538 on medical marijuana is unconstitutional and discriminatory.

April 28, 2015: Yuba County Urgency Ordinance 1542 prohibits outdoor cultivation of marijuana, regulates the structures within which it can be cultivated, and establishes a registration process.

June 2016: Voters of Yuba County voted down Measure A, "The Yuba County Medical Marijuana Cultivation Act of 2015," which proposed allowing outdoor cultivation, and in greater quantity, than the county code allowed.

June 2016: Voters of Yuba County voted down Measure B, "The Patients Access to Regulated Medical Cannabis Act of 2015," which proposed licensed medical marijuana dispensaries.

November 2016: Voters of Yuba County voted down Measure E, "Cannabis Cultivation & Commerce," which proposed an ordinance for commercial medical cannabis activities.

November 2016: Voters of Yuba County voted down Proposition 64, though the proposition was approved statewide.

April 4, 2017: Restrictions are set for cannabis cultivation for personal use, including prohibiting outdoor cultivation, limiting cultivation to six plants, limiting cultivation to a parcel within a legally established and permitted residence, and others.

August 2017: Two deputies shot and wounded, one suspect killed in a shootout after officers responded to a conflict at an illegal grow site at Sugarleaf Rastafarian Church in Yuba County.

November 14, 2017: County bans commercial cannabis cultivation in all unincorporated areas of the county in Ordinance 1568.

December 28, 2017: Yuba County Board of Supervisors proclaims local emergency due to the proliferation of illegal cannabis cultivation.

January 2018: Day after California launches its first legal sales of recreational marijuana, Yuba County officials gather on step of state capitol to criticize the state’s cannabis regulatory system, saying it is not protecting them from destructive illegal grow sites.

December 2018: Two Chinese nationals are charged in federal court for money laundering, conspiracy to manufacture marijuana, and manufacturing marijuana in large-scale cannabis operation in Yuba County.

March 26, 2019: Board of Supervisors declares a temporary moratorium on industrial hemp cultivation within unincorporated areas of Yuba County in Ordinance 1581.

November 2020: Voters in Marysville vote in support of Measure M, a tax on marijuana businesses, generating an estimated \$300,000–470,000 per year in support of municipal services including law enforcement, fire services, roads, and recreation.

2020: Board of supervisors adopt a resolution five times over the year proclaiming local emergency regarding the proliferation of illegal cannabis cultivation.

2020: Yuba County Sheriff Wendell Anderson reports his department eradicated more than 29,000 marijuana plants from illegal grows, many of which he associates with “drug trafficking organizations.”

2021: Board of supervisors continue renewing resolution proclaiming continued local emergency regarding proliferation of illegal cannabis cultivation.

2022: Board of supervisors continue renewing resolution proclaiming continued local emergency regarding proliferation of illegal cannabis cultivation.

August 4, 2022: Yuba Sutter Narcotic and Gang Enforcement Task Force (NET-5) conducts a traffic stop with the assistance of the Yuba County Sheriff’s Department. Eighteen-year-old J. Rivera-Lopez, a previously known participant of the Norteno criminal street gang, is searched, arrested, and booked on charges of possession and transportation of controlled substances for sale and other firearms-related charges.

September 2023: The marijuana eradication team eradicates over nearly 2,000 marijuana plants in Dobbins, an unincorporated town in the Yuba County foothills.

Table 8. Key Yuba County Actions Regarding Cannabis Cultivation

Date	Key county action	Purpose
May 2012	Ordinance 1518	Establishes cultivation limits based on parcel size, from six mature plants on less than one acre to 25 mature plants on over 20 acres. Advocates sue the county for violation of Prop. 215
December 2012	Ordinance 1522	More permissive allowance of medical cultivation on fenced and occupied parcel with greater plant numbers allowed: e.g., under one acre a total of 18 plants—six mature maximum; over 20 acres a total of 99 plants allowed—60 mature maximum
April 2015	Ordinance 1542	Prohibits outdoor cultivation; regulates structures within which marijuana may be cultivated; and establishes a registration process justified by California drought state of emergency
June 2016	Yuba County voters reject Measure A	The Yuba County Medical Marijuana Cultivation Act of 2015, which proposed allowing outdoor cultivation and in greater quantity than the county code allowed
June 2016	Yuba County voters reject Measure B	The Patients Access to Regulated Medical Cannabis Act of 2015, which proposed licensed medical marijuana dispensaries
November 2016	Yuba County voters reject Measure E	Cannabis Cultivation and Commerce, which proposed an ordinance for commercial medical cannabis activities
April 2017	Ordinance 1563	Prohibits outdoor medical and nonmedical cultivation; limits personal use gardens to six indoor plants per parcel, irrespective of number of residents, and establishes parcel/structure requirements
November 2017	Ordinance 1568	Prohibits all commercial cannabis activities; defines cannabis cultivation as a nuisance; identifies landowners as responsible parties for abatement; expands enforcement capacities, including “enforcement without warning”

Napa County

Background

Napa County is one of the few coastal counties (along with Los Angeles and Orange) that have banned cultivation and other cannabis activities. The eleventh smallest county (of fifty-eight) in California, Napa County covers 789 square miles—slightly larger than Yuba County, and twenty-six times smaller than San Bernardino County. The county is one of nine encircling San Francisco Bay. Napa Valley runs thirty miles north-south and is flanked by the Vaca Mountains to the east and north, which are generally warmer and drier than the Mayacamas Mountains, which stand on the west side of the valley and receive more precipitation. San Francisco Bay moderates weather on the south side of Napa County. Volcanic activity, erosion, and deposition formed the area, giving it volcanic and rich alluvial soils that couple with a Mediterranean climate to create the county’s unique agricultural profile.

Due to climate change, droughts, fires and floods have become increasingly common and dangerous. Both drier/flammable *and* wetter weather conditions are, paradoxically, predicted for the county in the preponderance of climate change models, as wet and dry seasons both are expected to intensify (Micheli et al 2016). In 2020–21, Napa County recorded its driest years since 1976–77, during which the reservoir of the City of Napa dipped below half capacity, resulting in a 30 percent cut to residential use and restrictions on resort visitors to conserve water. In 2020, the Glass Fire and Hennessy Fire together burned 900 structures in total and were amplified by the LNU Lightning Complex fire, which became the fifth-largest in state history. This made 2020 even more devastating than 2017, when 650 homes burned in three fires (Eberling 2020). Floods are likely intensified by fire scorch and the mono-cropping of Napa County, particularly in hillier regions, which can contribute to erosion and sedimentation of waterways, though the county has established agricultural guidelines to mitigate this. There has been significant conflict in the past few decades about conservation and ecological protection in Napa County, especially in hillier areas (Bland 2017), where much of the county’s drinking water comes from, and which harbor many sensitive watersheds. Concerns also revolve around the Napa River, which has been designated as “impaired,” due in large part to agricultural runoff and sediment (Holbrook 2016, SWCRB 2023). Despite seasonal drenching, experts predict water availability will decline in coming years (Micheli et al. 2016). With surface water less available, groundwater resources are also under stress, though a groundwater basin plan was approved in 2023 to reduce groundwater usage under the Sustainable Groundwater Management Act (Fusek 2023). These climate change-induced dynamics are expected to expand winegrape quantity but reduce quality as crops ripen quicker during hotter months.

According to US Census data, there are 138,000 residents in Napa County. It is one of California’s more densely populated counties (twentieth of fifty-eight) at 176.6 people per square mile. The county is aging: in 1970 average age was 32.3, 36.5 in 2000, and 41.8 in 2020, nearly four years older than state averages. Average home price in 2023 was \$849,000, up nearly a third since 2006 (\$622,500). It has the ninth lowest poverty rate (9 percent) and ninth highest median household income (\$97,500) of California’s counties (Palm 2023). Napa County’s residents are majority non-Hispanic white (52 percent), 34.6 percent Hispanic/Latino, and 8.7 percent Asian, with 22 percent of the county foreign-born. Prior to Spanish conquest and Mexican colonization,

the Wappo, Miwok, and Patwin people were primary inhabitants of the area now known as Napa County. Swiss-German and French immigrants settled the land after US conquest in 1848. Before 1900, Chinese workers were employed and settled in the county, generally working on construction, domestic help, agriculture, and small business. A later Italian migration replaced Chinese workers, many of whom were driven out via racist policies and intense social pressure (McClellan 2013).

The social, economic, and environmental dynamics of Napa County are hard to understand without an adequate understanding of its dominant economic sector—the wine industry (which includes winegrape agriculture, winemaking, and wine tourism). Currently, grapes comprise nearly all of the county’s agriculture value (though low-value livestock ranching takes up significant land). Napa County features 3,700 farmers on 1,772 farms at an average size of 137 acres, well below the California average of 445 acres. Most farms (87 percent) are family run, and most farmers are white (96 percent) and male (62 percent); 30 percent are new to farming (USDA 2022). Napa County’s wine production history dates back to the nineteenth century, when it was distinguished as the provenance of wealthier gentleman farmers from San Francisco (McClellan 2013). The phylloxera pathogen devastated the early wine industry, but it revived during the early days of Prohibition, when winegrape exports boomed as many US residents turned to home winemaking. After World War II, Napa County’s wine industry began to slowly grow again, this time legally. In 1944, farmers formed Napa Valley Vintners and resuscitated older wine tourism destinations from the 1800s, up and down the valley. Since the 1960s, when Napa County only had twenty-four wineries (Daniels 2018), the industry has grown significantly, an expansion marked in 1976 with a famed wine competition that elevated Napa County wines to international renown. The Napa Valley became the first American Viticulture Association (AVA) in California designation in 1981 (and the second in the nation), and it now contains sixteen appellations. By 1991, geographer Teresa Bulman described a “grape monoculture” in Napa County, as grapes subsumed the once-diversified agricultural landscape (Bulman 1991). In 2017, nearly 97 percent of the county’s agricultural land was planted in winegrapes (USDA 2017). Though Napa County only produces four percent of California’s winegrapes, its wines are highly valued, capturing approximately a quarter of California’s wine revenue. Between 2008 and 2022, winegrapes prices-per-pound have nearly doubled (\$4,700 to \$8,800), coming to top \$1 billion in revenue in 2018. From 1969–2012 the value of county agriculture quintupled, agriculture acreage quadrupled, and the county now hosts 475 physical wineries, up from one hundred in 1981 (Carl 2023). Agricultural tourism has become a critical source of county revenue and economic growth, accounting for 19 percent of all non-farm jobs in 2021. In 2012, the county received 2.9 million visitors, which grew by 30 percent in 2018 to 4 million. Between 2008 and 2022, the number of wine serving licenses has increased by 300 percent (Carl 2023). Tourism has far surpassed winegrape production in value, reaping \$2.23 billion in 2018 (compared to \$1 billion for winegrapes).

Much of Napa County’s land is designated as “agricultural preserve” and “agricultural watershed.” These designations, made under the state’s Williamson Act of 1965, which sought to protect agriculturalists, were key to ensuring lower taxes and preempting non-agricultural development. Changes to the preserve must be approved by voters. Today, 90 percent of unincorporated county lands are protected under the ag preserve. Restrictions on land supply, imposed by the ag preserve have driven agricultural land prices up. Napa County has perhaps the

most valuable agricultural land in the US (Penn 2021). Compared to a state average of \$7,200 per acre, Napa County vineyards were selling at \$50,000–300,000 per acre in 2012, the most expensive in the country (Huffman 2013). On the valley floor in 2014, an average acre price was \$310,000 and reached an average of approximately \$450,000 countywide in 2019 (Penn 2021). Rising prices amplified consolidation and corporatization, but that process has been occurring since the 1970s, when Coca-Cola and Nestle purchased Napa County wineries. Mergers and acquisitions were periodic, such as the buyouts of Beringer and Mondavi in the early 2000s and in 2023 sales of three major wineries to multinational corporations, which sought to establish flagship properties in Napa County (Wilde 2022).¹⁴

Rising property prices, partly brought about by agricultural preserves and “slow growth” rules in unincorporated areas, have put pressure on housing and labor. Napa County has struggled to build enough housing and has offloaded much of this task to the Cities of Napa and American Canyon (Yune 2019). Today, the county has a tight 2 percent vacancy rate and half of renters are “housing burdened,” or paying unsustainable amounts for shelter. Most residents are squeezed into urban areas and excluded from ag preserve lands by slow growth policies—96 percent of county land is unincorporated, yet only 20 percent of county residents live in this area, meaning 80 percent of county residents are squeezed onto 4 percent of county land (Yune 2020). Labor markets are correlatively tight, as workers find it difficult to live in the county (Carl 2018). Meanwhile, residents spoke of infrastructural neglect in area not frequented by tourists,¹⁵ and some city officials felt the county relied on cities without giving back, particularly in the City of Napa, which is divided among five supervisor districts.

The wine industry and conservationists have historically worked together, but in recent decades the relationship has become fraught. Napa County grape growers generally employ more sustainable agricultural practices than other crops (Viers 2013) and conservationists and wine industry actors worked together to pass a 1980 slow growth measure, defeat proposed developments on ranch land in 1996, establish a fish friendly certification program, and establish a hillside protection ordinance. Today, Napa County vintners conduct CEQA reviews for wine grapes, making it unique among crops in California (besides cannabis). Tensions have risen between environmentalists and the wine industry over issues including tree removal, the rigor of CEQA review (Eberling 2018a; Hollbrook 2016; Napa County Grand Jury 2015) and water pollution (Goldbaum et al. 2015). These tensions resulted in open conflict over environmental protection in a 2018 ballot (Measure C), pitting environmentalists against the wine industry, specifically the Napa County Farm Bureau (Damery 2023), the result became one of “the most divisive issue in Napa County” history, in the words of one political insider.

¹⁴ A study of cult wineries by Taplin (2016) showed that exclusive brands were largely subsidized by proprietor’s wealth, transferred from other industries, and affirmed a common local adage that the billionaires are replacing the millionaires in Napa County. Indeed, the low tax rates of agricultural preserve land make it an enviable investment for resource-rich buyers hoping to park money in asset form. Napa County ranks fifth nationally in the rate of luxury second home mortgages (BAM 2022). The corporatization of wineries has led to tensions in governance, noted one official, as local resident-owners are replaced by corporate representatives that do not live in Napa County and are little concerned with local issues.

¹⁵ One resident told us, “Everything is directed [to] making downtown better for the tourists, bringing more money for the politicians and them. And nobody cares about us.”

Farm bureaus across the state are 501(c)(5)s, which allows them to engage in political activity, provided it is not their primary activity. The farm bureau is the largest membership organization in Napa Valley at 1,500 members, ranging across the wine industry. Around the time Measure C was introduced, the Napa County Farm Bureau formed a political action committee (PAC) called the Fund to Protect Napa Valley Agriculture, funded by winegrape growers. This PAC and the bitter struggle over Measure C (to protect trees and waterways) was seen by many interviewees as a transitional moment in the farm bureau's presence in the county. It had been viewed as a paternal guardian of county lands and population, according to some, but as industry profits and growth accelerated since 2008, it is increasingly perceived as a single-interest, zero-sum organization. A 2018 Napa County grand jury case branded preserve land as "welfare for the rich" (Eberling 2018b) that deprived county residents of significant sources of revenue and reduced funds for basic public goods (particularly roads and wastewater systems). The county declined to act on the grand jury report and issued a defense, though this defense was shadowed by accusations of conflict of interest by the county assessor (charged with tax collection), who owned ag preserve land.

There appears to be more drive to limit wine industry growth since 2014 when the county began expanding its code enforcement agency (Poteet 2019), and especially since 2022 elections and the rise of a more planning-oriented board of supervisors. The bolstering of code enforcement was reflected in increased funding for the Napa County Department of Planning, Building, and Environmental Services between 2014–2016, a decline through 2020, and a near doubling of agency budget since 2020 to \$9.2 million (from \$4.8 million in the 2019–2020 budget). In 2023, supervisors controversially rejected a new winery in the mountains, citing not only environmental concerns, but the need to maintain rural character and open landscapes (Eberling 2023b). The controversial Walt Ranch, which was riddled by allegations of environmental impacts and political corruption, was ultimately purchased by a conservation land trust in 2023. The county has also established a 2019 voluntary program to clear up code violations (Eberling 2023a), to improve inspection and compliance, and to enforce code violations. The tightening of code enforcement, which was spurred by the 2015 grand jury report finding inadequate enforcement and threats of litigation in 2017 by environmentalists (Napa Vision 2050 2017), has led to lawsuits from wineries (Linnekin 2022; Derbeken 2023) and contention with environmentalists when development is approved (Eberling 2024). This shift in county enforcement was deepened in 2022 when the county fired its CEO, who was alleged to have close ties with the farm bureau, a sign that the bureau's influence was being rebuffed.

Cannabis Policy Dynamics and Evolution

Cultivators have grown cannabis in Napa County at least since the 1970s, particularly in the Mayacamas Mountains on the county's western edge, which one resident called "legendary" for its growing conditions and one of its signature sativa strains, "Sonoma Coma." In more recent decades, growing has also been common in the Vaca Mountains, near Lake Berryessa, and in more remote reaches of the Mayacamas (e.g., in or near Robert Louis Stevenson State Park). While enforcement has largely been trained on public lands, especially in the mountains, we heard several reports of cannabis plants grown between rows of grapes on vineyard lands, especially in more secluded parcels in the east county, out of view from the valley floor.

Under full prohibition, police enforcement was the only form of cannabis regulation. Funding for law enforcement has been consistently rising, from \$22 million in 2008 to \$36 million in 2020. County law enforcement commonly participated in the state’s CAMP program. In 2007, CAMP eradicated 41,500 plants in the county, mostly outdoors and on the remote northern edge. By 2010, eradicated plants rose to 104,500, following a statewide boom in production.¹⁶ By 2013, after the termination of the CAMP program in 2010, the county eradicated 25,500 plants (24,000 outdoors), which were mostly identified via resident complaints and were generally on large, private parcels with no knowledge by owners. In 2014, deputies eradicated 62,000 plants and identified numerous environmental violations, in line with federal and state enforcement priorities. In recent years, few plants and cultivation sites have been identified; one grow in Robert Louis Stevenson State Park in 2020 led to three arrests and logged several environmental violations. With declining state resources for eradication, Lake and Napa Counties have coordinated work (e.g., the sharing of canine units or spotting of gardens). Since CAMP’s limited reinstatement, Napa County law enforcement has received some support through aerial reconnaissance, identification of unlicensed sites, and coordination to provide personnel and funding for eradication. The reduction in eradicated/seized plants can lead to a reduction in resources dedicated to cannabis, since law enforcement grants are often tied to plant numbers. With declines in grants, plants, and state programs, Napa County’s sheriff’s department now dedicates only one officer to cannabis-related operations. The department still seeks funding from US Drug Enforcement Agency and its Domestic Cannabis Eradication and Suppression Program (DCESP) for limited line items like equipment purchases or rentals (e.g., of helicopters) and overtime for eradication. As a ban county, Napa does not receive any state assistance from the DCC for enforcement, though it has received assistance from CDFW upon request.

Large-scale unlicensed cultivation appears to be disappearing. A knowledgeable law enforcement officer noted that unlicensed outdoor and mixed light operations in Napa County were not detected at all in 2021 and 2022. (We have not found any reports of outdoor/mixed light unlicensed cultivation in 2023, either.) This may be due in part, this officer notes, to wildfire and drought conditions, which reduce tree cover and water resources. Several participants noted that even small grow sites, sometimes grown by vineyard workers and/or owners in or at the edge of vineyards, have disappeared, an observation we hypothesize mirrors declining wholesale prices for cannabis. One official recalled five separate unlicensed grows in 2020, but these together entailed around 20,000 plants total, a decline from earlier when they would find single grows of 100,000 plants. A law enforcement official noted another possible reason for cultivation decline: increasing costs and scarcity of workers in Napa County. With food, rent, and labor costs rising while wholesale cannabis prices decline and wages compress, unlicensed cultivation firms may struggle to attract and retain workers for the same reasons many small businesses are unable to do so. Some cases of unauthorized indoor growing still occur, particularly in American Canyon (what one deputy calls a historical “hotspot”).

Napa County localities made regulatory adjustments around medical cannabis prior to legalization. In 2005, Napa was an early adapter to SB420 requiring that counties issue and recognize medical cannabis ID cards. Only in 2010, did the City of Napa move to allow non-storefront medical dispensaries and cultivation sites in industrial zones. (St. Helena also

¹⁶ In 2010 Napa County deputies shot and killed a grower at a cultivation site. In 2011, two people were found dead at a cannabis grow.

considered two dispensaries in 2010, while Calistoga and American Canyon opted to ban dispensaries in 2009.) Though the City of Napa ordinance passed, a court decision (*Pack*) challenged the basic ability of localities to regulate cannabis. Though the decision was vacated in 2012, it (and several other factors) had a chilling effect on cannabis regulation. With no guarantee of protection or authority for the city, the Napa City Council repealed the medical cannabis ordinance in 2013. The city invalidated for technical reasons a 2014 effort to collect signatures for a voter referendum to allow dispensaries, but by 2017 Napa city leaders and advocates were interested in resurrecting the issue as oppositional city council members exited office. The city passed an ordinance once again allowing medical dispensaries in industrial zones, the first of which opened in 2019, followed by several more in 2020 (most of which are owned by out-of-area owners). In 2022, the City of Napa allowed for medical dispensaries to convert to adult-use and for new adult-use stores to open. Since opening, the most serious criminal event involving city dispensaries has been an attempted break-in during off hours, which police interrupted, with no violence. Just as the City of Napa has assumed much of the county's responsibility to provide affordable housing, it has also assumed responsibility for providing cannabis access to the county population. To date, no other Napa County cities beyond the City of Napa have opened dispensaries, and only one, American Canyon, has permitted manufacturing and cultivation (a cap of six permits) in 2018, though to date none of these permits have led to operational businesses.

Since the 1996 approval of medical cannabis (Proposition 215), an appreciable base of patient activists emerged in Napa County. One activist had a successful non-cannabis career when he was struck by a chronic, debilitating illness and was treated with medication that caused organ complications. He quit his job to reduce stress and calm his immune system and began self-medicating with medical cannabis. Thinking his lifespan was limited, he decided to fight for medical access in Napa County, which had no dispensaries or cultivation allowances at the time. Under the Napa Cannabis Coalition, he used his own money and time to organize and educate other patients to lobby leaders and advocate at city and county meetings where cannabis policies were being discussed. His activism was dogged due to his life-threatening illness: “I’m growing [cannabis].’ That was my attitude. I’m going to die anyway.” He credits his backyard plants, which he juiced and drank, with restoring his health. He and others oriented cannabis activism not only around medical access but around the racial and punitive effects of the war on drugs. From 2012–2016 local activism coalesced around a fight to defend an African American patient-cultivator. In 2012, the cultivator’s Vallejo dispensary was raided by state, federal, and local officials, after he had supported a 2011 city tax on medical cannabis. After his case was dismissed and seized funds returned, he opened a medical cannabis cultivation site in Napa County with medical recommendations of patients. Napa County deputies subsequently raided this site, cut his plants, and took the extraordinary step of raiding his operation in Oakland, beyond their jurisdiction. He became a cause celebre for Napa County medical cannabis activists, illuminating the racialized and anti-patient underpinnings of cannabis enforcement.

After legalization, the county moved in 2017 to pass a moratorium on all cannabis cultivation, while it studied the issue and considered a ban. In response, a new group, Napa Valley Cannabis Association (NVCA), arose to advocate for commercial-scale cultivation. NVCA participated in county meetings to discuss local regulations, billing itself as a trade group with a membership fee ranging from \$500 to \$10,000. NVCA had some membership overlap with backers of Measure

C, the measure to protect oaks and waterways and the wine industry, thus straddling critical political divides. NVCA started as an education group, focused on creating discussion around cannabis in the county, while some of its members were interested in building cannabis businesses. Their initial aim was to create space for high-end, appellation-driven cultivation, in unincorporated lands and designated as an agricultural land use. One of the original members confirms this by expressing a desire to build cannabis to “fit in the Napa life, the premium luxury model” and “target the consumer that spends \$2,500 to spend the night” in boutique local hotels and consumes the finest of Napa County wines. “Very niche,” this member says.

While medical and anti-drug war activists did not support a cultivation ban, some viewed NVCA’s professional, niche orientation and high costs of membership as exclusionary, with questionable relation to patients and consumers. Feeling excluded, they declined to participate in NVCA. One access-oriented patient activist said: “I just want to make it so you can grow [cannabis] and I can buy it, and it’s fair for all of us. I’m interested in the consumer’s rights and the voter’s rights and our access, making sure it’s done right so we don’t have to...drive [to Vallejo] and then pay quadruple the price.” He worried that if cultivation permitting eventually passed, it would be consolidated under large or powerful growers, much like wine had been, with little to no benefit for locals, and large rents for owners based on the Napa Valley appellation. One patient-activist interpreted the wine-based leadership of NVCA as an indication that their aim was to merely capture cannabis cultivation markets for their own benefit. This partition between commercial and medical advocates was firmed up when Napa County made liberal allowances for personal cultivation, thus satisfying many access- and patient-oriented activists.

Outdoor personal and medical cultivation was approved by county supervisors in 2018, when supervisors also elected to renew a countywide ban on cultivation above the six-plant maximum (Eberling 2018a). The policy stipulated setbacks from sensitive sites and requirements for visual barriers, security, and plant location. Importantly, the policy did not require active permitting and inspection, is only addressed when complaints are registered (reactive enforcement), and is largely handled by code enforcement, like any other land use issue. (The Cities of Napa and Calistoga also implemented policies for outdoor cultivation.) Napa County stands out among this study’s cases for upholding patient and user ability to cultivate outdoor cannabis in unincorporated lands without prohibitive permitting and cost barriers. Foreshadowing future conflict, however, even the policy for personal or medical cultivation was opposed by the farm bureau, which was concerned that cannabis could adulterate grape crops and did not want competition for space in industrial zones with indoor growing. More broadly, the farm bureau viewed personal-medical *and* commercial cultivation as a single issue that threatened the wine industry, according to a knowledgeable source.

The personal-medical cultivation allowance appeased many cannabis activists, who still supported lifting the ban but were less convinced of its urgency. New efforts to allow commercial-scale cultivation were increasingly viewed as a separate struggle with tenuous relation to the prior wave of medical and anti-drug war activism. As one patient put it: “If I owned a huge ranch and I wanted to start a cannabis farm—a commercial one—I might feel like I’ve got something left to fight for.” As it is, he feels that his access-oriented patient activism has concluded. While there might not be cultivation, he says, “I think we’re lucky we protected our

personal rights [to cultivate].” Coupled with access via dispensaries in the City of Napa and via delivery services, the personal cultivation ordinance effectively satisfied many local needs.

Commercial cultivation advocates in NVCA were, then, left to argue against the ban and for regulations through negotiations with policymakers and other county stakeholders. Since 2017, NVCA had been circulating policy ideas to local political leaders and viticultural organizations, including the farm bureau, hoping for action. All that resulted, however, were promises for more discussion. Discussions stalled largely over *where* cannabis would be grown. One official analogizes “when a sex offender is trying to be relocated into a community, there's nowhere to go, and you have to draw these radiuses. Right. And then all of a sudden, there's nowhere to go. That's how cannabis was.” Frustrated, NVCA moved to gather signatures for a voter ballot to allow cultivation on unincorporated lands, a task that they completed in seven days. They did this through a new organization called Napa County Citizens for Responsible Green Cannabis Regulation (Eberling 2019), a name that signaled a big-tent approach that included local residents and environmentalists. This campaign would not be waged in terms of medical or personal access, but on a different terrain of economic development, industrial formation, and environmental dynamics. The signatures were qualified and the ballot was set to go to voters.

The ballot measure, called the Napa County Cannabis Regulation Initiative (NCCRI), was meant to counter the temptation by county officials to turn the temporary moratorium into a permanent ban in 2019. NVCA made strides locally in advancing their cause by hiring a consultant who had previously worked with a local vintners group and by revealing a list of NVCA supporters, which included a number of well-known vintners and grape growers in the county across the political spectrum. NVCA found significant public approval for the measure in a commissioned poll: 64 percent were interested in establishing a county regulatory program, 13 percent unsure, and 23 percent opposed. Popular concerns revolved around youth consumption, impaired driving, and odor, though few registered concern for its impact on the wine industry—an issue that would later become central to the ballot’s defeat.

The ballot would allow cultivation on properties over ten acres, with a maximum growing area of one acre and a countywide limit of one hundred acres. The latter limit ensured that cannabis would not overtake or threaten winegrapes, which occupied tens of thousands of acres in Napa. Among other things, the ballot would have enabled cannabis to be grown within the agricultural preserve and agricultural watershed areas, though it also stipulated setbacks and other restrictions to ensure it did not affect winegrapes. The qualification of cannabis as “agriculture” under county rules was necessary to ensure that each cannabis garden did not require special voter approval to be started—further, only “agricultural” land uses could legally occur in the agricultural areas of the county. Though cannabis was not specifically excluded from agricultural preserve or watershed zones, setbacks would, de facto, prohibit cannabis from being grown on the valley floor and in the Carneros region.

When the ballot qualified, the county had options to either pass it as legislation, put it on the ballot, or conduct a 9111 report to study the initiative and report findings on pros and cons. The 9111 report (HdL 2019) explored dimensions of cultivation, such as smells that might affect wineries/grapes; potential conflicts over pesticide drift and the introduction of pests and diseases; effects on tourism, property values, and economic development; competition with wineries over

land, labor, tourists, and housing for farmworkers; impacts on water; and impacts on Napa's name "brand" and viewscape. The 9111 report reviewed the challenges raised by defining cannabis as agriculture, including the applicability of right-to-farm protections and conflicts it might cause with grape growers, limited ability to change rules for cannabis, and potential circumvention CEQA review. The 9111 report did not envision significant tax and revenue benefits. It did, on the positive side, note that cannabis agriculture could expand the tourism base, update its brand, and draw in new sources of revenue (even if it questioned whether this might adversely affect wine tourism).

After the 9111 report was published, supervisors considered next steps. At that time major opponents of the cannabis initiative (including a farm bureau leader and influential wine industry actors) arranged a trip for two county supervisors to visit Santa Barbara County, where cannabis cultivation was permitted. The trip highlighted the case of a vineyard that had to halt its use of a fungicide after it corrupted a neighboring cannabis crop, a move that resulted in a failed winegrape crop. Another winery in Santa Barbara County was a mile and a half downwind of a large-scale cannabis operation, resulting in a decline of tourism at the winery due to smell and the eventual shuttering of the tasting room. Ballot opponents saw hoop houses and greenhouses in Santa Barbara County as blemishes on the viewscape, noting how they upset the vineyard-based views. Cannabis advocates were skeptical of this trip, not only because supervisors were flown on a private jet of a local political donor critical of cannabis regulation, but because the trip seemingly cherry-picked instances in which cannabis negatively impacted wine grapes, and bypassed other examples of peaceful coexistence or beneficial introduction of cannabis cultivation for local coffers, economic development, and environmental management. Further, opponents of regulation framed the problems in other counties as necessary results of cannabis allowance, rather than examples that could be controlled by improved regulation in Napa County.

Opposition to cannabis cultivation regulations emanated from the farm bureau, which, as explored above, had recently formed a PAC to defend wine industry interests. The farm bureau's opposition was absolute as it did not believe compromise with NVCA was possible or desirable (e.g., Eberling 2021). One farm bureau leader theorized that a compromise ordinance would only elicit more claims by cannabis cultivators. This leader believed the ordinance would put grape growers at a disadvantage by giving cannabis growers "inalienable" rights (as with right-to-farm stipulations). One wine industry advocate openly worried that cannabis growers would challenge the economic preeminence of the wine industry, seeing cannabis as another high-value crop that could begin to replace winegrapes. The four major wine industry organizations opposed the cultivation ballot, including Napa Valley Vintners, which was concerned about the use of the Napa brand name for cannabis. Also opposed was the county sheriff. According to farm bureau leadership, who organized the opposition to the initiative, the only policy pathway to ensure cannabis cultivation would not challenge wine industry interests was an absolute ban.

Ballot opponents coalesced around a multipronged argument against a regulatory program. First, it would threaten the "viewscape" of Napa's vineyards, which were critical to Napa's lucrative tourist industry. Opponents expressed fears of floodlights, barbed wire, patrolling ATVs, potent smells and barbed wire around gardens (issues that were not intrinsic to cannabis but were policy choices). Second, citing drought conditions, opponents argued it would draw down water

resources. Third, it would negatively impact the wine industry in numerous ways: differing and conflicting pesticide protocols that could bring litigation; competition for farmworkers; competition over land; sullyng of the Napa brand, built over many decades by the wine industry; smells and effects on tourism and grape quality (little evidence exists of grape adulteration (Vizuete 2019; Sellu et al. 2020). Opponents also argued that: other regions had comparative advantages for cannabis and Napa should stick to wine; crime could increase; and that some cannabis was an unstable market requiring a wait-and-see approach.

The farm bureau announced that it not only opposed the initiative, but would mount a campaign to fight it. Under pressure, NVCA leadership rescinded the ballot initiative, citing informal “good faith” promises from supervisors that they would craft an ordinance to address the problems identified in the 9111 report and deliver a cultivation permitting program (Todorov 2019). In particular, some supervisors appeared to express support for a pilot program, limited in acreage and permit numbers, to see how cannabis would fare. The pilot was imagined by supervisors and stakeholders to avoid some of the issues identified in the 9111 report and to be carried out by “responsible people” and would test whether cannabis could be integrated into “the fabric of the community,” as one advocate said. For one person close to the process, this was a test of the county’s commitment to agriculture, broadly: “how do [we] say we’re an agricultural community and not do [cannabis] ag?” The deliberation got as far as discussing federal bonding and had been discussed with wine industry stakeholders, according to people involved.

Though some contested whether supervisors had promised to advance an ordinance, all seemed to agree that a legislatively crafted ordinance, with public input, was preferable to more rigid ballots. At the next county board meeting in September 2019, three supervisors spoke against considering a legislative ordinance. One of the “no” votes—which tilted the board from consideration to rejection of cannabis permitting—came as a surprise to advocates, one of whom theorized “the farm bureau got to him,” presumably with campaign contributions. One person close to this now-opposed supervisor described him as behaving with a “gun to his head,” as he came under intense pressure from the farm bureau to stymie a cannabis ordinance.

Though supervisors intended to hold public hearings on a cannabis ordinance in 2020, the meetings were postponed indefinitely with the onset of COVID. Public discussion has not been scheduled since, despite two efforts in 2021 and 2023. In the last several years, cannabis advocates have gotten signals that more moderate wine industry groups would not oppose public discussion and may entertain a cannabis cultivation ordinance, though the Napa County Farm Bureau remains opposed. In 2019, the county voted to place a moratorium on hemp, followed by an official ban in 2021. Also, American Canyon voted to allow a few cultivation permits in 2019. Only one operator, an NVCA leader, came close to opening a production site, but the crash of the cannabis wholesale market in 2021–23 has stalled operation.

For the time being, cannabis advocacy has receded in Napa County, and advocates have retreated into a low-key, everyday cultural advocacy consisting of boutique dinners paired with cannabis, conversations among parents at their children’s sporting events, and special events to raise the profile of cannabis locally and to educate the public. Few are ready to join NVCA for fear of “ruffling feathers” and soliciting “backlash” from wine industry advocates, in the word of one

advocate. There was a thought of resuscitating a ballot initiative in 2024, but in dismal market conditions, there is not much eagerness to fund a new campaign. Some believe that the best chance for a cultivation ordinance or initiative was in 2019, when public support was evident and the benefits of early industry development could be realized. The opening of new dispensaries and relatively liberal allowances for personal and medical cultivation has meant the moment for a commercial cultivation ordinance has likely passed, unless a well-funded and highly interested advocacy group takes the lead in combating wine industry resistance. When cannabis wholesale prices are low, the chance of this dedicated force arising is slim, one commercial cultivation advocate noted. That said, recent shifts in county government toward a more planning oriented board willing to oppose the farm bureau and tighten regulation and monitoring of wineries suggests an opening for advocates, if they were inclined, to lift the ban. While one political observer notes that there are few specifically pro-cannabis supervisors, “there are people that are...fed up with” wine industry power and would like to see more diverse agriculture and an agricultural preserve program that serves more than simply wine industry interests.

Effects

Accessible allowances for personal and medical outdoor cultivation (and retail) are key to mitigating unintended consequences of local bans and lowering unlicensed cultivation.

Personal and medical cultivation allowances were accessible to residents. They did not require inspections, permits, and fees, and outdoor allowances enabled people to avoid expensive inputs required for indoor cultivation. Further, enforcement around personal-medical cultivation was largely consigned to code enforcement, which regarded it as any other land use and did not proactively enforce against cannabis gardens. This allowed patients and residents to grow their own cannabis without major impediments and without exceptional or punitive treatment. Napa County stands out among ban counties for its relatively permissive personal-medical cultivation policies. This allowance opened a pathway to permissible cultivation for county residents and, we hypothesize, was important in reducing the amount of unlicensed cultivation. In making limited cultivation possible, allowances satisfied residents who might otherwise break local rules, perhaps more brazenly and at larger scales.

The presence of retail access in the City of Napa provided a modicum of access to county residents. The county relied on the City of Napa and delivery services to provide access to those who could not grow their own for sundry reasons. This solution was not perfect, since it made access difficult for residents outside the City of Napa and it followed a pattern of offloading important population services onto cities, rather than providing solutions at a county level. The combination of cultivation and access policies across Napa’s governments enabled residents to act within regulatory confines and helped residents avoid structured noncompliance and criminalized behavior.

Napa County’s cannabis ban is a product of a dominant wine industry. While other industries factored into bans in other case studies, the opposition to cultivation was generally spearheaded by law enforcement and anti-cannabis organizations and officials. Napa County, however, is unique: the drive for a cultivation ban was led by wine industry advocates. Opponents were concerned about: a) aesthetic ruination of the “viewscape,” so critical to wine tourism; b) competition over scarce resources—land, water, labor; and c) concern over the effects of the

wine and cannabis industry upon one another (e.g., negative effects on the Napa brand, differing standards on pesticides, effects on grape quality, legal empowerment of cannabis cultivators over winegrape growers). This industrial opposition was not specifically anti-cannabis. Most opponents did not oppose use and access; rather, they opposed its inclusion into Napa's agricultural order. The wine industry's opposition was instrumental in short-circuiting the move toward commercial cultivation and the passage of a ban. The wine industry's opposition to cannabis cultivation policies was a view shared by all four major wine industry groups in the county, which collectively feared a challenge to the wine industry's dominance over local lands, policies, and economy, though some have moderated their views since.

As one wine industry leader noted, the Napa County Farm Bureau led the opposition: "I would say people look at the farm bureau as being the leader that is against cannabis." During fieldwork, other wine industry organizations referred us to the farm bureau as the voice of record on cannabis issues in Napa. Indeed, the bureau's leadership, its PAC (Fund to Protect Napa Valley Agriculture), and two of its vintner members, who are generous and strategic contributors to political campaigns, were critical in guiding this influential organization toward absolute opposition to cannabis. Their aim, as one Bureau leader framed it, was to combat whatever posed "a threat to the wine industry" (Todorov 2019)—from environmental regulations to land use competition from cannabis agriculture. Their opposition to cannabis (and environmental regulation before it) was regarded by many interviewees as unusually divisive and engaged in "scare tactics," as one cannabis advocate called it, that conjured fears of criminal danger, noxious smells, and aesthetic blight. These tactics extended to the targeting of supervisors for removal when they did not vote with the farm bureau's interests. This anti-cannabis support has had a chilling effect on county officials, who have avoided the cannabis topic and earned the Napa County Farm Bureau (at least) two supervisors who were in "lockstep" with their priorities. Yet the farm bureau's ability to translate monetary support for political campaigns into successful elections was limited, as several chosen candidates failed in 2022 and they were unable to stop a compromise environmental protection bill in 2019 (for overview see Lander and Mobley 2024).

The activist opposition of the farm bureau reflected an increasingly single-issue and zero-sum politics that pursued wine industry interests above all else. As one local official argued, regarding cannabis regulation, "Not as long as the farm bureau has control of this board [of supervisors]. There's no working together. It'll never happen as long as the farm bureau controls this board." This was a departure from the farm bureau's and wine industry's stewardship of the agricultural preserve, which managed land and resources collectively, for the betterment of the county's residents and farmers and preservation of its environmental heritage.

When faced with the cannabis initiative, farm bureau leaders advocated for a more public process, in which multiple stakeholders could be consulted and a legislative ordinance created, yet when the initiative was suspended and public deliberation was to begin, the bureau was skeptical of compromise, concerned that any accommodations for cannabis (e.g., a pilot project) would only encroach upon wine industry interests. A local official summarizes the message of the farm bureau as creating a "no and a yes. 'Yes' to wine; 'no' to cannabis. That was it. That was the party line." Though the farm bureau's recent and uncompromising political profile was forged in fights over oak trees and waterways, multiple informants and our own analysis

connects the bureau's politicization to an industry that is increasingly run by financialized entities intent on utilizing Napa wineries as investment vehicles and revenue generators, regardless of its effects on local social and environmental resources. As one political insider termed it, the fight over cannabis policy was not about the merits of cannabis cultivation, but was about establishing and defending who were "the powers that be." For supervisors, the cannabis debate was "never about 'can we do this?' It was, 'who are we going to piss off if we do?'"

We note that support for cannabis cultivation policies *also* emanated from people involved within the wine industry, and some quite conspicuously. In many ways, the debate over bans or permitting programs was a debate *internal* to the wine industry about what direction to take the future of Napa County. Would the future head toward new markets, consumers, and demographics that may depart from Napa's singular focus on fine wine, or would it defend Napa's established wine industry from encroachment? Notably, the leadership supporting cultivation permitting had also supported prior struggles for environmental protection, and that the organization that spearheaded the 2019 ballot initiative drive was named in ways that suggested "green" policies and the inclusion of "responsible" "citizens." The framing and leadership of cannabis regulations appealed to a shifting political economy in Napa County, in which environmentalists, residents, cannabis advocates, and others increasingly align against the predominance of the Napa wine industry. All of these forces have a stake in challenging the wine grapes and its grip on local politics and ecologies.

State definitions of cannabis that exclude cannabis as an "agricultural crop" challenge integration of cannabis into agricultural lands at the local level. The definition of cannabis by CDFA as an agricultural product—not an agricultural crop—poses down-chain challenges to localities that seek to incorporate cannabis into agriculturally zoned lands and land use ordinances. The CDFA made this decision for multiple reasons, including the federal government's ongoing prohibition and its effect on state agricultural programs and funding. At a local level, however, this definitional exclusion supports the exclusion of cannabis from local land use systems. Despite the belief among some local officials and advocates that "farming is farming" and that "anything that comes from... the earth is agriculture," the county and wine industry advocates have taken a narrower, cannabis-exclusive approach. For cannabis supporters, an "impartial" approach to agriculture would include cannabis, but winegrape partisanship is prevalent even among general agricultural support organizations, like the farm bureau. As one bureau leader argued, cannabis is not agriculture or farming: when a cannabis farmer approached the bureau about membership, the bureau responded that "the state's definition of agriculture does not include cannabis. So we represent agriculture. That's not agriculture." Indeed, when one supervisor supported cannabis, a bureau leader labeled them "anti-agriculture," thus illuminating the belief that cannabis is not agriculture. One political insider was disappointed by this narrowing of the farm bureau's mandate to grapes: "'Grapes are king. We don't want cannabis.' The [bureau] picked a side." The outcome of this was the increasingly singular identity of Napa with wine. As one official said, "How about we just call it what it is? We're a wine community. Here in Napa County, we struggle with the new, with the change. Like it's doomsday around here whenever you talk about change. You look at what the farm bureau has become, and it's really just the political action committee that is really run by conservatives. [They] just want to protect what they've got."

Advocates for commercial cannabis have, nonetheless, argued for allowance of cannabis as agriculture. Advocates were interested in qualifying cannabis as agriculture under county law, thus extending right-to-farm and other agricultural allowances that would give cannabis a foothold in the uncultivated regions of the county. Even so, ballot organizers voluntarily put numerous restraints on cannabis cultivation to ensure it would not impinge upon wine grape crops (e.g., setbacks, visibility restrictions). Advocates were careful to argue for a geographical, industrial, and aesthetic separation of cannabis growing from grape growing, seeing as many of them were also viticulturalists. But ceding any lands to cannabis was ostensibly regarded as a defeat for wine, similar to how the wine industry regarded environmental protections as impingements on winegrape growing.

Unlicensed cultivation in Napa declined, not as a result of enforcement, but of economic realities (and personal allowances). Unique among our case studies of ban counties, Napa County was able to effectively foreclose most unlicensed growing. No outdoor cultivation sites were found in 2021 or 2022, and only one indoor site was busted in 2023. The county sheriff's office had only one position dedicated to cannabis eradication, and that deputy split responsibility with other patrol responsibilities on night and weekend shifts. Despite scant resources dedicated to cannabis eradication (or focused prosecution of felonies), Napa has not been inundated with unlicensed grows. As one deputy notes, in the past, enforcement resources have effectively played a “shell game” that pushes cultivators from one place to another, from one style of cultivation to another (e.g., from seed to clone-based production as a strategy to reduce plant numbers, and from outdoor cultivation in public parks to hoophouse cultivation on private lands). Enforcement, this deputy notes, is always catching up to the cultivation “problem” and innovating new enforcement strategies as risks and rewards to cultivators change with each legal and regulatory shift.

One knowledgeable informant noted that the most significant reason for lack of unlicensed cannabis agriculture has to do with challenges *all* agriculture experiences—unaffordable land and scarce labor. With a high-value crop like grapes, there is little reason for landowners to jeopardize their property with unlicensed cannabis, a crop with declining value. As one deputy theorized, property values drive cannabis cultivation decisions: “It’s property values in this county—the criminals that are associated with that kind of lifestyle can’t afford to live [here]. The average person can’t afford to live in Napa.” While trespass grows on public and private land may not have to bear the cost of land, they do have to employ workers, who are less available in Napa County due to high living costs. Much of the local “workforce is transient. Meaning they’re commuting in” from other places. Cultivation sites would be much easier to operate in areas with lower land and living costs, like Solano County, Lake County, and points north, which also have the advantage of a cannabis-related transient workforce, he theorized. Further, the years that unlicensed outdoor cannabis cultivation disappeared (2021–23) correspond to declines in cannabis wholesale prices and, thus, declining economic incentives to grow. We were told repeatedly that declining cannabis revenues has translated to declining wages and increasing precarity for cannabis workers.

Other factor encouraging this unlicensed cultivation decline is: a) accessible, achievable rules that allow personal and medical cultivation, as mentioned above and b) the effects of wildfire,

which eliminated much of the forest cover to conceal plants, and drought conditions that have dried up water sources.

Anti-cannabis sentiment does not seem to overtly motivate bans. As explored above, opposition to cannabis cultivation was not motivated by anti-cannabis sentiment, per se. Many of those opposed to cannabis cultivation regulations explicitly noted support of medical cannabis and non-opposition to adult use. One opposition leader notes he would be “the first one to go out and purchase cannabis for medical use” if his mother were sick. Instead, the opposition in Napa County was specifically rooted in a desire to protect the existing, wine-based agricultural order, as also mentioned above. At times, the opposition deployed anti-cannabis tropes, like fear over crime, but in general advocates were careful to frame their opposition to cannabis as an agricultural— not cultural or political—matter.

Though legitimate concerns can drive bans, misleading concerns can confuse regulatory debates. There are reasons that restrictions on cannabis cultivation may make sense for Napa County, though few reasons necessitate a full ban. One clear argument for bans is to enable the county the ability to avoid the effort and cost of establishing a cannabis permitting program, especially in recent years with declining wholesale prices and less incentive to grow cannabis. Some Napa County interviewees called this a “wait and see” approach to regulation, as regulations and markets level out.

Many reasons given to support bans, however, were misleading. For instance, ban proponents selectively cited cases of conflict between wine industry and cannabis agriculture, but ignored cases of relatively successful cohabitation, as in Sonoma County. Ban proponents argued cannabis would alter the quality of wine grapes, yet scientific evidence suggests otherwise. They argued cannabis cultivation would necessarily alter the viewscape of agricultural preserve lands, even when strict setback and zoning rules could be established through local legislation to ensure this does not happen. They cited nuisances more commonly associated with unlicensed cultivation as unavoidable effects of permitted agriculture, as with the argument that legal cannabis sites would attract crime and partition the landscape into, as one wine advocate feared, a landscape mottled with barbed wire, floodlights, and armed guards that would be like “little mini prison yards dotting our landscape.” There is nothing to suggest that regulated, legalized cannabis activity draws crime any more than other market or agricultural activity, particularly as cannabis prices drop and access widens.

Many arguments revolved around whether cannabis would be a wise crop to grow in the county, yet it is unclear why a ban should ensure that *farmers* do not make this agricultural choice. On one hand, we heard arguments that cannabis would become a low-value crop and would not benefit the county, while others argued it was a high-value crop that would threaten grape growing. What remained unclear, however, was why regulatory policy should prohibit cannabis, rather than leave the choice of what crop to cultivate to individuals and their market appraisals. Similarly, the argument was made to us that other regions have a comparative advantage in cannabis and Napa County should stick to wine, yet if it is indeed at a comparative advantage, it is unclear why policy should prohibit agriculturalists from growing it, as they would any other crop. Some raised the issue of limited water resources, though others pointed out that cannabis acreage would be capped so its total draw on water resources would be minimal. Water estimated

were used in misleading ways (as with all other counties), as when opponents pointed out correctly that cannabis consumes more water than grapes but ignore the water resources to make grapes into wine. There was concern over the use of the Napa County brand, as the wine industry has been instrumental in its establishment. Yet, many products and businesses use the Napa name without the Napa brand collapsing. While Napa Valley Vintners protect the name “Napa” and are concerned about an overlay of cannabis onto existing appellations, it is unclear why cannabis, particularly in space-limited form, could not share agricultural and appellation space with wine, except for a desire to limit the agricultural preserve and watershed zones for wine exclusively. This exclusionary decision, on its face, seems to violate its designation as a zone for agriculture generally. Of course, if cannabis is not defined as agriculture locally or statewide, exclusion makes sense, as explored above.

Public discussion could defuse some of these misleading arguments and promote better understanding among stakeholders. Since 2017 county leaders and advocates of all sorts have endorsed and furthered the idea of public deliberation to produce a cannabis ordinance, yet little discussion has occurred. Whether cannabis is regulated or banned, it seems worthwhile to hold deliberate discussion at the county level. As it stands, what appears to be a well-supported move to allow cannabis cultivation has been kept from deliberation and a public vote.



Illustration 5. Wine grapes dominate the landscape in Napa County. Wine growers, vintners, and others in the industry have worked to establish the Napa brand, which some worry cannabis would taint. Additionally, wine grapes are a pesticide, fungicide, and fertilizer-intensive crop. If permitted cannabis were allowed, pesticide drift could ruin cannabis farmers’ crops, and threaten the ability of grape growers to spray chemicals. (Photo by Petersen-Rockney, 2022.)

Table 9. Key Napa County Actions Regarding Cannabis Cultivation

Date	Key county action	Purpose
2011	Farm bureau	Farm bureau accepts Crane Carter, a medical cannabis grower, as a member
February 2016	Ordinance 1410, Chapter 8.10	Prohibits large-scale cultivation of marijuana in unincorporated areas of Napa County while regulating small amounts of marijuana grown indoors for medical purposes. Also prohibits medical marijuana dispensaries in unincorporated areas of the county
October 2017	Ordinance 1425	Establishes a moratorium on commercial cannabis activity and outdoor cultivation within the unincorporated areas of the county
January 2018	Ordinance 1426	Until there are more solidified state regulations that can be enforced, commercial cannabis activity will be insufficiently regulated and poses a public threat
July 2018	Ordinance 1431	Prohibits large-scale cultivation of cannabis in unincorporated areas of the county save for six-plant grows by individuals for medical and personal use
Spring/Summer 2019	Ballot Initiative Qualifies	Napa County voters submit a certificate of sufficiency and over 8,000 signatures to the board of supervisors

		of a petition, “Napa County Cannabis Regulation Initiative” (“The Initiative”), recommending a revision to the county’s definition of “agriculture” to include commercial cannabis cultivation in the right-to-farm ordinance and allow permitting of commercial cannabis businesses within the unincorporated parts of the county
July 2019	Ordinance 1444, Napa County Hemp Moratorium	Temporary moratorium on the issuance of registration, permit or entitlement, or approval of any type for any cultivation of industrial hemp in the unincorporated area of the county
August 2019	Ordinance 1448	Extension of the time frame of Ordinance No. 1444
August 20, 2019	9111 Report Submitted	Consulting company Goldfarb & Lipman LLP analyzes the potential impacts of “The Initiative” in a report prepared for Napa County, concludes “legal commercial cannabis creates significant concerns over potential impacts on Napa County’s world-renowned wine industry”
August 2019	Ballot Initiative Withdrawn	The Napa Valley Cannabis Association withdraws its ballot initiative (“The Initiative”) in a “gesture of good faith,” giving the board of supervisors time to craft an ordinance. Within a weeks, the board of supervisors votes to extend the ban on commercial cannabis in Napa County
October 2019	Cannabis Ban	Napa County makes final vote to replace its temporary moratorium on cannabis cultivation with a full ban
Winter 2020	Policy Action Postponed Indefinitely	Contentious debate between pro- and anti-cannabis groups continues in Napa County, and ballot initiative is stalled by the COVID-19 pandemic
March 2021	Board Considers Cannabis Policy	Board of supervisors revisits cannabis issue, and opponents share concerns, largely related to perceived impacts on the wine industry. Board of supervisors declines to further explore commercial cannabis concerns in 2021, saying it must focus on more pressing issues of the pandemic and wildfire recovery and prevention
June 2021	Ordinance 8.11.030	Cultivation of industrial hemp is expressly prohibited in the unincorporated areas of the county, even for

		research and academic purposes
March 2022	Ordinance O2022-003	Allows cannabis retailers to sell medical marijuana as well as adult-use marijuana if the retailer has obtained a Cannabis Establishment Clearance (City of Napa)
March 2023	Adult-Use Dispensary Opens	First adult-use cannabis dispensary in Napa County opens in City of Napa

Cross-County Findings

Below we outline research findings, grouped into several categories. First, we describe two overarching observations. Second, we identify drivers of cannabis cultivation bans, including environmental concerns, limited governing capacity, and more deeply seated cultural concerns. Third, we describe ban enforcement approaches, which vary widely across jurisdictions. Fourth, we present our preliminary findings of consequences of cultivation bans, including the degree to which they achieve stated and unstated goals.

Overview: Bans rarely achieve or maintain eradication of cannabis

The most obvious driver of bans is the goal of eliminating cannabis cultivation. We found, however, that not only do bans consistently fail to achieve this goal, but also that this goal is often pursued without regard to what land uses might replace cannabis. For decades under the war on drugs, eradication and ban policies have been shown to be ineffective in controlling drug crop cultivation (Farrell 1998). Further, programs that simply pursue eradication (or alternative development) without any engagement with cultivator communities continuously fail at suppressing cultivation and only succeed at dislocating the problem and intensifying negative outcomes (Listerman 2014; Rincon-Ruiz 2016). Where cannabis cultivation is eradicated, even at a hyper-local level, it may be replaced by activities and populations that pose greater risks to public and environmental health.

In two of four counties, bans existed while cannabis cultivation actually *increased*. Siskiyou County implemented its ban in 2016 and, despite intensifying anti-cannabis activity, cannabis production volume has either increased, remained consistent, or spread to other locales. San Bernardino County has had a ban in place for over a decade and, despite this, has witnessed an explosion of cannabis activity since 2019. Despite intensive eradication campaigns in 2020–22, our observations suggest many cannabis growers simply adapt to new enforcement tactics with new cultivation and concealment strategies. In San Bernardino and Yuba Counties we noted a common adaptive pattern of cultivators—to simply move operations to more remote spots or to other jurisdictions with lower enforcement intensity. Enforcement officials and policymakers refer to this as a “whack-a-mole” process that simply relocates the problem, with little effect on suppressing the activity overall. In Yuba County, with its relatively small county jurisdiction, cultivators commonly hopped to other counties, basing selection of destinations on which county was intensifying or retreating from enforcement. These findings are consonant with modeling of

interdiction/eradication efforts and cultivation rates (Magliocca et al. 2019) that shows drug market activity increases *alongside* anti-drug activity as cultivators adapt to enforcement (Buxton 2015). Other analyses show that eradication only succeeds at *temporarily* stopping drug flows, effectively relocating drug market activity to other sites (Felbab-Brown 2014).

The only case that cannabis cultivation slowed significantly under ban policies was in Napa County. However, our analysis does not attribute that to ban policies or enforcement practices. Rather, the allowance of outdoor, civilly regulated and accessible cultivation alongside expensive land and labor costs more likely informed declines in unlicensed cultivation.

If cannabis disappears from certain areas, other impactful resource users may move in. In areas subject to development pressure, such as the high desert in San Bernardino County, builders may erect residential homes that use considerably more water than cannabis (Zipper et al. 2019). Informants in Siskiyou, San Bernardino, and Yuba Counties described a concern that other illicit activities would replace cannabis farmers if they were forced to leave. A resident of Siskiyou County described observing how “in the areas where growers have left, like [name of subdivision], there are more tweakers and residents can’t do a thing about it. The POA [Property Owners Association] took people to court if they were growing; now the Hmong have left and squatters are coming in.” Another Siskiyou County resident, who was not a grower and was not pro-cannabis, expressed his concern about what might replace cannabis if the county could manage to eradicate the crop. “It’s not like alcohol or meth or people who are so either strung out to get more that they commit crimes, or they’re so out of it that they just do terrible things to other people,” he said. “It just seems like it’s the least of the evils.” Research confirms such claims, that eradication can simply intensify the marginalization of communities by taking away one form of livelihood (Mansfield 2011).

Overview: Bans require significant public resources

Many county governments lack resources to sustain bans. Not the absence of a policy, bans are themselves policies that create their own expenses, burdens, and responsibilities. They can require significant enforcement, prosecution, and regulatory costs. Officials in rural localities like Siskiyou, which has the forty-third smallest budget of California counties, identified low tax revenue in regions as a persistent dynamic. San Bernardino County, which has the sixth highest revenue among California counties, is also limited in its revenue potential because much of its land (over 80 percent) is publicly owned and nontaxable. Rural counties, in particular, noted difficulty in hiring and retaining staff. Each locality has to decide whether this enforcement expense is worth not only expended resources, but also the opportunity costs of failing to address other problems with police and other agencies. “We’re a really poor county,” said an elected official in Siskiyou County. “We have no cash to do anything.” While fines might recuperate part of the costs of enforcement and prosecution, they likely fail to fully pay for these efforts (or environmental remediation) because many of the fined do not pay and some simply abandon properties, forcing litigation and pursuit of fine remission that consumes resources additional to initial costs of eradication, inspection, and case administration.

In weighing costs of bans, counties should consider the costs of regulatory programs. In the last few years, the regulated cultivation sector has struggled with high regulatory costs, low prices,

and a crisis of overproduction, diminishing hopes of significant tax revenue for localities. Many local authorities impose such significant restrictions that they all but forfeit potential revenue. Furthermore, localities may find creating regulatory programs a fiscal impossibility, even if the political will were present. Bans, however, also entail significant costs. Local control—for both ban and permit policies—requires each locality to establish its own regulatory and permitting programs, often from scratch, and with expensive, litigious missteps. Siskiyou County, for example, has faced three civil-rights lawsuits since 2016, which a board supervisor described as “draining our county's money to fight.” Yuba County was sued three times for abridging the rights of property owners with its ban enforcement techniques, as well as suits for property destruction and for abridging religious freedoms. The state has used fiscal policy to incentivize counties to permit cannabis and has made efforts to support the creation of functioning regulatory programs. Moves to alleviate the costs of local regulatory programs—including encouragement of localities to create a default, opt-in program that abides by state law (as set out in Proposition 64)—may be advised.

Drivers of bans: Concerns over water and environmental pollution

We found that in all four counties, cultivation ban legislation explicitly identified concern for water quantity and quality as justification for bans. Additionally, we found that ban counties and water agencies utilized concerns over cannabis cultivation to pass water-related policy measures. In the Spring of 2023, the state legislature proposed a bill to specifically target the co-occurrence of water felonies and cannabis cultivation, thus deepening a strategy of some ban counties, particularly San Bernardino, to re-felonize cannabis through water-based crimes (above and beyond already existing punitive consequences and felony status). In California’s extreme drought conditions, expected to worsen with climate change (Pathak et al. 2019), another legal agricultural water user is largely unwelcome. Farmers of other legal crops in California have long held water rights priority, and there is simply not enough water to go around (Stein et al. 2022). In addition to growing urban water use demands, legal actions over the past several decades have also mandated water availability for wildlife and ecosystems (Doremus and Tarlock 2008). Besides water quantity, water quality concerns have risen in California’s public debates as increased pollution, reduced dissolved oxygen, and rising salinity have affected fish and other species. Climate change anxieties, particularly regarding water, have created opportunities for formation of broad coalitions that include local residents, agriculturalists, law enforcement and other county agencies, politicians, and environmentalists.

Critics consistently blame cannabis cultivators for water problems (and other environmental problems), even when cannabis only uses marginal amounts of water, absolutely and in relation to other local crops, industry, and land uses (Dillis et al. 2024b). Water concerns are real, but various actors harness them to their own agendas. Blaming cannabis for overall stresses on local water systems provides simple answers to complex questions regarding water quality and quantity. As outlined in the Yuba County case, for instance, one water management agency stands to profit by inflating concerns over cannabis’ water diversions to justify restrictions on water disbursements to its members, creating opportunities to sell water to thirsty users elsewhere. In Siskiyou County, anger over recent water curtailments was partly directed at cannabis growers by officials and affected residents and agriculturalists, who blame cannabis growers for water scarcity, even though most cultivators draw from ground (not surface) water

and/or reside far downstream of affected water users and, thus, bear little responsibility for upstream water scarcity. In Napa County, concerns over water were cited by ban proponents as a key reason justifying bans, especially insofar as they would take water resources away from viticulture. These arguments correctly noted the greater water draw for individual cannabis plants than for individual grape vines, yet they did not account for the fact that proposed regulatory programs would have limited the absolute area of cannabis cultivation, and did not account for the large water resources required in producing wine (including larger areas of cultivation and water use in wine production beyond growing plants) (Dillis et al. 2020). In San Bernardino’s high desert, water concerns were cited as a reason for implementing cultivation bans. The major complaint of local residents, however, was unpermitted water draws and the sense of unfairness this created amidst relative water scarcity. If bans do not stop cultivation (see above), they effectively make it *more* likely that unpermitted draws will occur by blocking regulation of water use. Water arguments, however, were useful for anti-cannabis forces to rally public sentiment to justify and maintain bans.

Water concerns have justified intensified enforcement. Siskiyou County, for example, passed ordinances that banned the extraction of groundwater for cannabis cultivation (Siskiyou County Ordinance 20-13), required a permit to transport water from one parcel to another (Siskiyou County Ordinance 21-07), and banned the transport of more than one hundred gallons of water—only on roads adjacent to where Asian American cultivators lived (Siskiyou County Ordinance 21-08). Napa (Code 8.10.030), Kings (Code 14-61), Shasta (Code 8.09.020), Santa Clara (Code B26.5-6), and Orange Counties (Code 4-5-2 and 4-5-1), all have banned or restricted the use of groundwater for cannabis cultivation. The Sustainable Groundwater Management Act (SGMA) has also proven powerful in justifying banning cannabis and enforcing restrictions against cannabis farming. In Siskiyou County, for example, the county used SGMA to sue alfalfa farmers who sold water to suspected cannabis farmers (box 2).

Environmental concerns not only drove cannabis cultivation bans, but also provided ban counties with a suite of tools and resources to enforce against cannabis cultivators. In addition to water, other environmental concerns such as trash and wildfire risk were common drivers of bans across counties. In San Bernardino, Yuba, and Siskiyou Counties, county sheriff’s offices and district attorneys worked with CDFW to staff and fund ban enforcement activities from state resources. California Fish and Game Code violations also provided opportunities to assign felony charges to cultivators who, under Proposition 64, could no longer receive a felony charge for growing cannabis itself, but could for disposal of trash near a water body (California Fish and Game Code Sec. 5652), water pollution (California Fish and Game Code Sec. 5650), or stream use/diversions (California Fish and Game Code Sec. 1602). A San Bernardino County state legislator introduced and won passage of legislation (SB753 in 2023) to intensify punishment (via felonies) for water impacts due to cannabis cultivation. Most of the listed felonies do not apply to any other water users, authorized or not, in the state. Among our case studies, San Bernardino was one of the most active in seeking, documenting, and pursuing water-related felonies, and this bill will expand the consequences of these actions, specifically against cannabis and beyond already-existing felony punishments for criminal water charges.

Drivers of bans: Concerns over public safety, crime, and nuisances to residents

Concerns about public safety and crime, especially theft of property and water, commonly drove bans across counties. Crime and safety concerns are notoriously complex, often demonstrate a gap between perception and reality, and are consistently overemphasized in relation to socially stigmatized substances and marginalized populations (Roberts 1992; Quillan 2010). We documented several alleged instances of crimes attributed to cannabis cultivators, such as water stealing, stream diversion, and wage theft. Yet, the concern over crime was commonly coupled with racialized concerns over particular populations—Latino and Chinese cultivators in San Bernardino County, Hmong American cultivators in Siskiyou County, and Latinos in Yuba County. Though we cannot verify whether crimes were committed in disproportionate amounts among racialized cultivators, specifically, we note that bans fuel speculation about criminal causality, especially when they employ discourses about “cartels” and “organized crime.” In all of our study sites, ban supporters commonly cited cartels as a concern, yet in San Bernardino County, where we came closest to seeing traces of ethnically organized unlicensed business, police officials doubted the presence of actual “cartels.” Similarly, despite publicized concerns over “human trafficking,” what we saw was informal and undocumented workers in numbers typical of most legal agricultural endeavors. Indeed, we heard that many of these workers preferred unlicensed cannabis work because of the relative freedoms and better wages it provided over legal market options. It is unclear that bans protect from crime—in fact, many theorize that substance prohibitions foster criminal activity, rather than prevent it (e.g., Zedillo et al. 2019). To the contrary, emerging literature on cannabis and crime shows that legalization and commercial cannabis activity does not raise crime, and in fact, lowers it in some places (Chu and Townsend 2019; Zakrzewski et al. 2019; Lu et al. 2021)

Additionally, nuisance concerns, such as smell and blight, were common drivers of bans. In Napa County, for example, officials and anti-cannabis activists routinely described concerns that cannabis smells and aesthetic disruptions of a carefully crafted viewscape (such as fences and greenhouses) would reduce wine industry tourism. In San Bernardino County, residents complained of trash and unpermitted fencing, and Yuba County residents spoke of drifting smells. Nuisance concerns are an intrinsic part of civil administration and can motivate rectification of conflict between neighbors, yet we anecdotally noted the specific and compounded enforcement against nuisance complaints when they were connected to cannabis. Indeed, San Bernardino and Siskiyou Counties specifically utilize code enforcement during cannabis raids to charge code violations even when no specific complaint originates from a neighbor or local resident. (Instead, county government proactively acts to detect and enforce against violations, even though code enforcement for other land uses is generally reactive to complaints over potential violations.) The categorical status of cannabis cultivation as nuisance correlates with tight restrictions on personal and medical cultivation, leading to such restrictive programs in San Bernardino and Siskiyou Counties that few residents, if any, comply. Napa County, however, was unique in addressing code complaints between neighbors over cannabis cultivation: as long as personal/medical cultivators were growing within guidelines, complaining neighbors were not favored over cultivators.

While public safety and nuisance concerns of unpermitted activities are understandable, their use in driving cultivation bans misses opportunities to regulate these consequences if cultivation were permitted. Criminal activity may in fact be reduced through regulation and the civil

administration this invites. Similarly, nuisances could be prevented under regulation, which would require particular operational procedures. Instead, criminal and nuisance activities can only be addressed retroactively under bans. Further, if cultivation bans do not stop cultivation (see above), bans effectively create an unregulated space in which wrongdoing can occur, especially as cultivation is pushed deeper underground or to more remote areas to avoid detection and enforcement.

Drivers of bans: Cultural concerns often underpin ban efforts

Across ban counties, we found that deep-seated cultural concerns about cannabis, and those who grow it, drove ban policies. These concerns were often based in persistent stigmas about cannabis as an agent of unwanted cultural change. The historic, century-plus stigmatization of cannabis cast cultivators in a negative light and this bias—against countercultural people, people of color, low-income people, patients, immigrants and “drug criminals”—continues in the present day. Some of this was rooted in long-standing local tensions around back-to-the-land movements of the 1960s counterculture, in which leftward leaning youth moved to rural areas to live out utopian projects. Though conflict between these migrants and local conservative culture punctuated regional histories in places like Siskiyou and Yuba Counties, local integration did take place, oftentimes around cannabis cultivation, as in western Siskiyou County where countercultural residents, Native Americans, and loggers cooperated around cannabis commerce, or in Yuba’s foothills where low-income white rural residents, the counterculture, and more recently medical cannabis patients bonded over cannabis production. To power brokers in these counties, however, cannabis and its purveyors may have been tolerated in certain marginal spaces and communities, but it was excluded from public life and county norms. Proponents of bans, including local elected officials in all ban counties studied and reiterated classic war on drugs talking points, such as concern about cultural change, deviance, “gateway” drugs, youth corruption, vagrancy, and homelessness, all attributed to cannabis. It is important to note, however, that not all pro-ban officials or advocates held these positions—some saw value in medical cannabis use, held no particular grudge against cannabis cultivators, and viewed regulatory policy as too fraught to engage. They supported bans because it was a less expensive (see above on county resources) and onerous way to handle an unsettled policy realm. Across counties, officials and residents were open to lifting bans but felt no particular urgency to fight for it, especially as it would require confronting organized anti-cannabis blocs (see below, this section).

As mentioned above, officials and residents in all four counties described concern about “foreign cartels,” with little or no supporting evidence, that demonstrate ongoing fear of outsiders. For example, a board supervisor in Siskiyou County contrasted “my ranchers” whose “lives are threatened, their culture has been destroyed” by “a parade of growers [who have] come in” who were “outsiders” seeking to destroy “our way of life.” At a public meeting about cannabis policy in 2015, Siskiyou County officials called for a separate show of hands from “the Hmong residents” and then “the County residents present,” confirming divisions along racial lines (*Chang et al.*). Fear of outsiders was consistently accompanied by thinly veiled racial animus, as with this board supervisor who described those outsiders as “Hmong” and “communist... Chinese mafia.” In San Bernardino County, this notion of foreign cartels and ever-present danger

led to a sense that the high desert was a terrain of war, similar to Mogadishu, in the words of a law enforcement official.

In addition to elected officials directly propounding racializing and vilifying discourses about cultivators, we also found that local governments in ban localities provided state-sanctioned platforms for stigmatizing assertions through public fora that sometimes contributed to vigilante actions. In San Bernardino County, residents complained of Mexican thugs they believed were going to take over the community, leading some to assert that they would arm themselves and take local protection into their own hands. In Yuba County, one boisterous anti-cannabis activist, who worked closely with one supervisor, proactively surveilled people's properties, looking for cannabis, and would report any detected cannabis plants to the county. At board of supervisor meetings in Siskiyou County, for example, members of the public often asserted that "they don't live here," "these people are not residents" (SCBOS Minutes May 4, 2020). At another public meeting, a resident said, "I would just like to say that it's pretty evident that the county is under siege, just look at this room [gestures at Asian American attendees] most of these people are here, I assume, to be growing marijuana illegally and commercially. They're part of cartels" (*Chang et al.*). Such discourse drove not only legal prohibition and enforcement, but also vigilante activity, such as organized neighbor groups who patrolled subdivisions to call in citation violations to law enforcement (Polson and Petersen-Rockney 2019).

Attempts at safeguarding a particular notion of (primarily white and conservative) rural culture extended to definitions of agriculture itself. Across ban counties, we found that concerns about cultural change were interwoven with ideas of what constitutes culturally appropriate local agriculture. From Napa County's preservation of viticulture, to Yuba County's protection of rice farming, to Siskiyou County's safeguarding of cattle ranching and alfalfa farming, local governments consistently asserted particular agricultural enterprises as culturally normative, and in need of active definition and defense from encroachment by cannabis cultivation. While such assertions were often made in terms of maintaining particular cultural and aesthetic values free from cannabis' stigmatized influence, they served specific political and economic aims, as covered in the next section.

Drivers of bans: Non-cannabis issues and the promotion of unrelated political agendas

On their face, cannabis bans reflect a jurisdiction's disposition toward the plant. However, cannabis bans often conceal other political and economic agendas. As we have explored in previous work, these agendas can be centered around the cultural-political dominance of local elites and the correlative exclusion of marginal economic and social actors (Polson and Petersen-Rockney 2019). Though cannabis bans can be rooted in cultural stigmas, as explored above, anti-cannabis attitudes are not necessarily or primarily the cause of bans. Instead, we have seen the utilization of anti-cannabis attitudes to achieve varied agendas. Sometimes institutions stoke anti-cannabis sentiments as they search for new resources, as frequently appears to be the case with sheriff's departments that have relied on anti-cannabis enforcement for budget and grant justifications. This can extend to water and environmental health, code enforcement and planning, and district attorney offices, among others. Politicians also use anti-cannabis sentiment to fortify their elected position, something reflected in political science literature (Simon 2008; Kenney and Holmes 2020).

Other competing land users and industries have also utilized bans and stoked anti-cannabis attitudes to protect or divert attention from their own resource use and economic advantage. For example, Siskiyou County has tried to meet new state groundwater reduction targets under the Sustainable Groundwater Management Act in part through cannabis eradication, therefore reducing state pressure on significant but politically powerful irrigators like alfalfa farmers. Agricultural industry actors expressed concern not only that permitting cannabis cultivation would allow another claimant on limited water resources, but also that the limitations on cannabis' water use during drought would provide a pathway to restrict water entitlements for other forms of agriculture in an increasingly water-limited California future. In cases like Napa County, we see that industry can oppose cultivation as a competing industrial land use without being anti-cannabis per se. Napa grape growers and their representatives in local government and the farm bureau were concerned that allowing cannabis as an agricultural crop would limit the ability of grape growers to spray pesticides, including fungicides and herbicides. Grape growing is pesticide intensive, and these pesticides often drift onto neighboring properties (box 5). If cannabis farmers had equal agricultural protections (i.e., in such a right-to-farm affordance) county, they could potentially limit the ability of grape growers to spray toxicants because drift would make cannabis crops unable to pass safety testing protocols due to the strict, and unique, health and safety testing protocols for cannabis harvests. Farmers and ranchers, as well as public officials, in Yuba and Siskiyou Counties expressed concern about “regulatory bleed,” or the potential that more stringent environmental and labor protections in cannabis, if recognized as farming, would lead to more environmental and labor regulations for farmers who grow other crops. Concerns were especially great regarding water.

Box 5. Drift

Over the course of our study, a consistent theme around cannabis was a concern over “drift.” From ban proponents, a big concern was about the drift of cannabis smells into vineyards and wineries. Citing a case in Santa Barbara, vintners worried that the smell of cannabis plants would drift into wineries and ruin the experience of wine-tasting. This could have an economic effect on tourism, they warned. Further, winegrape growers were concerned that terpenes from cannabis could adulterate the profile and quality of grapes. Conversely, some cannabis advocates theorized that the wine industry was less concerned about the drift of cannabis to wineries and were more concerned about the drift of vineyard pesticides onto cannabis gardens. Wine industry advocates admitted as much, again citing a Santa Barbara County case in which a vineyard’s pesticide use was curtailed when a cannabis growers’ crop suffered from vineyard pesticide application. Recent public attention has drawn connections between high pesticide use and high rates of certain cancers in Napa County, illuminating how controversial debates over “drift” can be. Indeed, one person suggested that the “reverse drift” of pesticides onto cannabis is the real concern of winegrape growers. They say, “Allowing commercial cannabis farms outdoor... would [potentially subject] people who spray to lawsuits. It would open up the threat. If it drifts to your cannabis, you can prove it and they can be financially right.”

Digging deeper, we came to understand concerns over “drift” as explaining more than just the travel of smells and pesticides. Ban proponents worried that cannabis would draw crime or

employ unsavory individuals and this would affect tourism and local safety. There was a kind of fear of visual drift, where wine-based aesthetics would be disrupted by the emergence of cannabis in the landscape. Some worried that Santa Barbara County's conflicts might drift into Napa County, and that bans needed to be erected to prevent that drift. (The relative success of permitting cannabis and wine in Sonoma County was not viewed as a likely kind of drift, nor was the Sonoma County Farm Bureau's relatively neutral stance toward cannabis seen as something that would drift.)

Across all these worries, the fear of drift turns out to be a fear of contamination, or sully, whether it is of plants, the tourist experience, crop purity, bodily health, public safety, bucolic landscapes, or agricultural order. The concern over contamination helps to make sense, then, of battles over the Napa brand and name and the viewscape of Napa County's agricultural preserve. Indeed, a more deep-seated idea of contamination has shadowed cannabis since it was originally prohibited in California in 1913. This contamination has been cast in terms of crime, yet it has always encoded and concealed other anxieties over race, class, agriculture, and government.

Residential/neighborhood activists, who often have direct cause for complaint, can easily be enlisted in these broader political-institutional agendas and oriented toward anti-cannabis solutions, such as re-felonization of cultivation or intensified enforcement, often with little discussion of other alternatives or debate over the efficacy of bans and enforcement-only approaches. Indeed, we found that an outcome of this utilization of cannabis policy for other ends can be a kind of resentful politics, where "moral entrepreneurs" play upon the remote possibility of re-criminalizing cultivation in order to rally forces toward varied agendas. In one case in Siskiyou County, residential activists were left feeling ignored and used as their concerns for water were utilized for other agendas.

Debates may be more civil or accepting of the motivations of cannabis cultivators, as in present-day Yuba and Napa Counties, but debates may also veer toward accusatory and stigmatizing claims, as in Siskiyou and San Bernardino Counties, where cultivators are blamed for various social ills, from the squandering of public resources, to the cultural decline of small communities, to ecological threat. In Siskiyou the racial-ethnic dynamics of these accusatory debates are apparent, as recent lawsuits allege, and the impact of San Bernardino's recent eradication campaign on ethnic minorities is also suggested in county operations summaries and the ethnic profiles of those fined, arrested, and charged.

When public policy is, or appears to be, guided by other agendas, distrust results and marginalized populations experience further alienation. Cannabis cultivators are already skeptical of government intentions after living under the drug war. In numerous interviews across all counties, we were continuously met with skepticism of government intentions that is only bolstered when agendas appear to use cannabis as a lever.

Enforcement: Bans and their enforcement vary across ban jurisdictions

Bans and their enforcement come in various forms. For instance, bans may apply to some or all commercial activities; they may be led by code enforcement or police or multiple agencies; they

may make different provisions for indoor, outdoor, and mixed light cultivation and for personal, medical, and commercial use. Broadly, enforcement can be divided into a “harder” approach, often led by law enforcement which frames cannabis cultivation as a drug issue, and a “softer” approach, led by code enforcement or some constellation of government agencies which frames cultivation as a land use issue. Whether law or code enforcement takes the lead in enforcement, however, is not the only characteristic that distinguishes these approaches.

San Bernardino and Siskiyou Counties’ approach to ban enforcement has been hardline. While in both counties the sheriff’s office now leads enforcement, code enforcement (when deployed) is organized into a sterner approach, as it works with law enforcement to levy larger and more immediate fines to punish cultivators. Since 2016, the sheriff’s office has led enforcement of cannabis cultivation in Siskiyou County. This transition was partly due to limits of code enforcement capacity, but was also linked to public alarm over the “problem” of new cultivation, much of it by ethnically marked Hmong American in-migrants. The assumption of control by law enforcement has led to significant contention, including lawsuits by Hmong American farmers over racial profiling and voter intimidation by law enforcement, and a day of police raids on legacy white growers in Siskiyou County’s western region in 2016 that approaches vigilantism. Siskiyou County code enforcement appears to have been instrumentalized for law enforcement purposes. Officials levy steep fines with the apparent aim of punishing offenders (often for quality-of-life violations). The aim of fines does not appear to be for education or remediation. Instead, many sites are raided, destroyed, and fined until they are non-functional, abandoned, or the placed under county real property liens, resulting in sites remaining unremediated indefinitely.

San Bernardino County has taken a similarly firm approach to cannabis enforcement. With a significant budget, San Bernardino County’s sheriff’s department led a hard-hitting eradication approach (Operation Hammer Strike) against expanding cultivation. Code enforcement and other county agencies were enlisted later in enforcement efforts, leading to a multipronged approach to address code violations, environmental harms, and landowner accountability. Code enforcement officials accompany law enforcement to cultivation sites and take actions like levying immediate and high fines (authorized by the county). Though civil, these actions are oriented toward punishment and eradication atypical within other land use enforcement efforts. They also inhibit preventive and educational interactions with cultivators, workers, and landowners, as they do not afford abatement periods or mitigation without punishment.

The hardline approach to bans adopted by Siskiyou and San Bernardino Counties repeats a similar pattern that was enacted under the war on drugs, not only in its punitive approach to marginalized populations, but also in its consistent and escalating requirement for more resources to “fight” criminalized peoples. Analysis of bans across the state suggests that these punitive approaches (and bans themselves) are especially embraced in rural, politically conservative counties which accept the expansion of government power in the form of additional resources and authority for law enforcement.

Yuba and Napa Counties highlight a different, softer enforcement approach. Since banning cannabis cultivation, both counties have placed enforcement primarily in the planning, not law enforcement, divisions of county government. Treated primarily as a land use concern, this approach deploys a different set of tools to educate growers and mitigate environmental harms.

This softer approach still often includes law enforcement, whose officers accompany code enforcement officials on raids, but creates a different set of dynamics and interactions with growers than raids led by law enforcement. In some cases, as in Yuba County, compliance/abatement time before fines are levied have increased over time, encouraging growers and landowners to address issues before being penalized or punished. Not only does this motivate residents to take appropriate action to address violations and improve the situation, but it also helps build good will and trust and encourages residents to learn county rules.

In both Yuba and Napa Counties, unpermitted cultivation has decreased and normalized since cultivation bans were implemented. In Napa, unlicensed cultivation (besides sporadic cases in public parks or indoor settings) has become rare for reasons (e.g., property prices) that have little to do with enforcement styles. In Yuba, growers have come to informal understandings of what will bring enforcement (e.g., large gardens, water diversion) and have accordingly adjusted their cultivation practices to abide. When targeted enforcement focused on large, environmentally deleterious operations, we have witnessed the emergence of informal norms regulating the behavior of smaller cultivators, especially regarding garden size and ecological practices. Paradoxically, creating some gray area in ban counties, where good actors and best (or better) practices can persist informally, as they did under medical regulations, can significantly reduce the scale and impact of cultivation.

Enforcement: Pedagogical and punishment approaches lead to different outcomes

As explored above, code enforcement can be deployed in hard, stringent, and punitive or soft, adaptive, and pedagogical ways. More pedagogical approaches often include: 1) reasonable time between notice of violations and imposition of fines; 2) interactions between code enforcement that are not mediated by law enforcement or coincident with armored raids; 3) the avoidance of cascading, roving, and punitive citations for every code violation on a property; 4) reactive (not proactive or aggressive) utilization of code enforcement; and 5) educational, informational engagement by code enforcement with cultivator communities. This approach engages cultivators not as criminals but as citizens/residents, deserving of respect and fair treatment, that are engaging in unapproved land uses. More punitive code enforcement does not have abatement periods; imposes immediate fines; engages law enforcement; uses code violations in punitive ways; proactively, often aggressively, seeks out code violations; and does not make information readily accessible about county codes. This approach frames violators as criminals with ill intent that cannot be trusted to take corrective action once they are informed of land use violations.

Pedagogical, civil approaches to law enforcement can encourage the growth of informal norms that can ameliorate negative impacts. Implementing this, however, requires a shift in governing outlooks. Banning an activity does not mean it will stop. It simply means it is not allowed and is not regulated. If bans are to exist, local governments may want to consider how to influence banned activities, since regulation is not an option. That is, under bans localities can govern through norms and civil engagement. As addressed below, allowances to protect individuals' capacity to cultivate for themselves in reasonable, affordable ways can go a significant distance in affording citizens/residents a way to cultivate legally. When people have an option to cultivate legally, this may prevent a kind of compounding illegality, in which the violation of one rule allows people to increase the scale or quantity of violations.

Civil enforcement can be an effective tool in creating norms, educating the public and potential violators, and preventing undesired outcomes. When enforcement does not allow for opportunities to remediate, adapt, and learn, it becomes merely punitive.

Enforcement: Well-resourced, consistent, and multipronged approaches can limit cultivation, though at a cost

San Bernardino County was an outlier in our study in terms of the resources it was able to dedicate to the ban and its enforcement. The county's coordinated efforts across law enforcement, code enforcement, environmental health, the district attorney, and other agencies has created a kind of comprehensive, "wrap-around" enforcement approach that has effectively shut down many cultivation operations in the short term. We were unable to determine the extent to which this decline was aided by declining market conditions, which have forced many out of business. As we have seen elsewhere (including in San Bernardino), there is reason to suspect unpermitted cultivation has simply been displaced or driven toward more secretive practices. Upon our last visit (early 2023), cultivation sites had been significantly reduced, yet we already saw signs that many people would be replanting, such as previously raided grow sites being prepared for cropping.

While San Bernardino County's efforts effectively reduced cultivation in the short term, we note that its budgetary resources are atypical for ban counties, most of which are rural, low-revenue counties. Duplicating San Bernardino's model is fiscally infeasible for most. Especially for low-revenue jurisdictions, the wisdom of dedicating significant resources fighting a legalized crop begs questions, especially to the degree that this enforcement de-prioritizes other budgetary, social, and environmental needs. With limited government resources, ban counties have to decide what price they are willing to pay to enforce bans on an activity that is only responsive to enforcement under certain conditions, for certain periods, and with sprawling programmatic resources.

Enforcement often enrolls environmental agencies

We found environmental agencies enrolled in cannabis enforcement activities. Across the state, the CDFW has become one of the most important collaborators to local law enforcement. CDFW provides support to local law enforcement both directly, through CDFW's Law Enforcement Division, and indirectly, through CDFW scientists, who assist local law enforcement in documentation on raids to cite cultivators with Fish and Game Code violations. Since the passage of Proposition 64, CDFW has increased staffing of both law enforcement officers and environmental scientists with regional teams across the state dedicated solely to cannabis cultivation.

In addition to the CDFW, ban localities have also attempted to enroll the SWRCB and California Department of Agriculture in ban enforcement. These agencies, however, do not have their own law enforcement personnel. Depending on local geographic factors, such as surface water versus groundwater dependence, the SWRCB may support ban efforts. For example, in Siskiyou County, the SWRCB placed groundwater pumping curtailments on several property owners in

2022, including several who were selling water to the rural subdivisions where many Asian American residents live and where some grow cannabis (SWRCB Curtailment Order WR 2022-0162-DWR 2022).

State personnel at environmental agencies provide significant enforcement support to ban counties, undermining state policy to deny enforcement resources to ban counties. This loophole for environmental enforcement support reduces one of the primary incentives for counties to develop permit programs, and places residents who have no legal pathway toward licensure in jeopardy. The other primary incentive to develop regulatory programs is the promise of tax revenue, which has decreased significantly with the cannabis market downturn. With meager tax revenues from cannabis sales and easy enrollment of state resources in enforcement through environmental agencies, incentives for ban localities to develop permit programs have nearly evaporated.

Since voters approved Proposition 64, cultivating cannabis has become a misdemeanor violation. One pathway to re-felonizing cannabis cultivation activities is through California Fish and Game Code citations. District attorneys in ban counties like Siskiyou and San Bernardino have attempted to use water and wildlife codes to charge cultivators with felonies. Violations such as disposal of trash near a water body (Fish and Game Code 5652) or water pollution (Fish and Game Code 5650) can elevate a cultivator's charges to felony status. The potential to re-felonize cannabis cultivation motivates ban counties to enroll environmental agencies in cultivation enforcement efforts, though counties like San Bernardino have taken to charging these felonies through county agencies alone.

Consequences: Bans do not stop environmental harms, and they may worsen them

Enforcement of bans can itself be the cause of large and frequently unmitigated environmental consequences. Raids on unpermitted cultivation sites often involve removing plants (colloquially called "chopping"), the destruction of cultivation infrastructure, and even the spraying of harmful pesticides. Greenhouses, water tanks, plastic pots, generators, and input containers (of fertilizers, pesticides, etc.) are often bulldozed by law enforcement to render them unusable and deter re-establishment of cultivation at that site (box 3).

While ban counties allocate resources to eradication efforts, they rarely provide resources for clean-up and environmental remediation, though San Bernardino County was unique in its work to involve environmental health agencies in assessing and remediating grow sites where potential toxins or hazards exist. Sometimes, as in Yuba, county code enforcement works with landlords to remediate properties, though in other places, like Siskiyou County, highly expensive environmental fines are not reinforced by a systematic remediation process. San Bernardino County navigated a middle path of immediate, costly fines, and an ongoing engagement with code enforcement to abate and remediate. One board supervisor in Siskiyou County lamented that the way state and federal funding worked is, "We'll give you money for marijuana enforcement, but there's no money to clean up afterwards. It's just the next step is never there." Without resources for remediation, county governments often place cleanup responsibilities on the landowner. But, we found, many landowners abandon properties after a raid, often fearful of legal consequences and owing more money to the county in fines and fees than their property is worth. Many formerly raided sites then sit, unoccupied and filled with trash and debris, for years

(figure 3). These sites pose environmental risk as plastics and other trash can ensnare wildlife, smother native plants, and enter waterways. Additionally, inputs such as fertilizers and pesticides, once monitored by the people growing on that site, can be left exposed, or in containers punctured by law enforcement to render them unusable in the future, posing risks of soil and water contamination and wildlife poisoning.



Figure 3. The site in Siskiyou County where Representative Doug LaMalfa (R-CA) participated in the bulldozing of greenhouses in July 2021. Photographed more than a year later, trash and debris had still not been removed. With public resources for law enforcement but not remediation, many sites, once raided, present further environmental risks. (Photo by Petersen-Rockney, 2022.)

Counties that pursue cultivation bans generally do not consult with environmental scientists or agencies regarding environmental impacts of bans and their enforcement. For example, according to interviews with staff, the CDFW consults with permit counties in assessing cultivation impacts due to regulated cultivation, yet CDFW is not generally consulted by ban counties on the adverse effects of bans. Many state environmental agencies, like CDFW, have a double (and arguably contradictory) mandate to both regulate and police cannabis cultivation activities. In ban counties, agencies like the CDFW and the SWRCB do not have the chance to regulate, educate, or provide technical assistance and support to cultivators around environmental protection. The only way these agencies interact with cannabis cultivators, then, is through enforcement.

Consequences: Bans push growers elsewhere, often into more environmentally sensitive areas and practices

Bans do not stop cultivation, but do push cultivation onto more remote, ecologically sensitive sites and into indoor, energy-intensive, and sometimes-hazardous environments as growers attempt to avoid detection. Historically, under prior prohibition regimes, cultivators have sought grow sites far from the public eye and state detection. This helps explain the historic siting of cannabis farms in remote regions, often on steep slopes vulnerable to erosion, and near surface water sources vulnerable to overdraft and pollution (Dillis et al. 2021; Dillis et al. 2024a). Cultivators may also utilize more intensive agricultural practices and inputs to accelerate and conceal cultivation, like using powerful pesticides, erecting “turn and burn” sites where cultivation occurs quickly and then is abandoned, and other adaptations to enforcement rhythms. One argument for legalization, which helped drive the passage of Proposition 64, was that, once

legal, cannabis cultivation would be able to move to less ecologically sensitive areas, such as agricultural valleys, and would be regulated to reduce negative environmental impacts. Notably, many of California's agricultural areas are not amenable to cannabis and have banned the crop altogether (Dillis et al. 2024a).

Local bans reproduce prohibitionist tendencies, including pushing cultivation onto more remote and environmentally sensitive areas. For example, in San Bernardino County cultivation has expanded into remote desert areas, home to rare Joshua Trees, which are especially sensitive to habitat destruction, pollution, and changes in water availability. This movement of cultivation occurred for many reasons, including increased felonization of indoor electricity use, cheap rural land, aggressive enforcement in neighboring jurisdictions, and the prospect of more remote locales to grow undetected.

These unintended consequences of bans should be accounted for, as they are consistently produced under prohibition and by restrictive regulations (e.g., Short-Gianotti et al. 2017; Dillis et al. 2024a; Polson 2019). Yet, without a mandate to plan for, much less address, these predictable consequences, bans can cause more environmental harm than they address.

Consequences: Bans create spaces in which crime can flourish

While concern about drug-related crime was a common driver of cultivation bans, bans themselves create spaces in which crimes can flourish. Unpermitted cultivators described being the victims of theft, with little recourse and no ability to enlist the assistance and protection of law enforcement. Reluctance to report crimes to police is common among criminalized communities (Slocum 2018; Xie and Baumer 2019). Not only do bans seed a generally antagonistic, fearful, and untrusting relationship between cultivators and law enforcement, but cultivators also expressed fear that if they called the police when they themselves were victims of crimes, they would be prosecuted. In Siskiyou County, for example, Hmong American cultivators often described incidents in which people from outside the community came in to steal property, such as generators. Several cultivators described incidents in which they were pulled over while driving by thieves posing as police officers who stole cash and other valuables. Bans create blind spots of regulation, which extend beyond cultivation-related crimes and theft into the household, as has been found in literature on lack of domestic violence reporting among illegalized immigrants (Amuedo-Dorantes and Deza 2022).

Without state protections and the perceived ability to call the police when crimes occur to unpermitted cultivators or within cultivation communities, many form their own internal accountability systems. Authorities then often cite those internal protection and accountability structures as evidence of organized crime, feeding negative perceptions of cultivators and cannabis in a cycle of escalating response and stigma. In Siskiyou County, for example, Hmong American residents of rural subdivisions have organized "security teams" by neighborhood. Each resident has a one-hour volunteer shift each week during which he or she may monitor subdivision entrances for disturbances, such as suspected thieves driving in, as well as being on call if elders need assistance or disruptions occur, such as a wildfire breaking out. As one white resident who lives near the subdivisions said, "These people have security because they don't have cops. If you call the cops you get busted, both neighbors get busted, so you get in trouble

and your community punished you. They have their own court system, if you beat your wife you get taken down to the [community center].” Though less organized in other places, unlicensed cultivators often utilized gates, dogs, motion sensors, cameras, security guards, and informal neighborhood watches to keep abreast of threats to their crops and personal safety.

Intra-community formations in response to enforcement may be especially important for marginalized populations, which rely on familial and communal networks for their safety, access to resources, and well-being. This is especially accentuated in Siskiyou County, where Hmong (and now Chinese) growers have been disproportionately targeted in ban enforcement, leading to systemic distrust of the county. In places like San Bernardino County, we documented similar forms of combination and cooperation among Chinese growers, as well as through community hubs, like grow/garden stores, where information could be exchanged. Combining with other actors in more sophisticated operations is a rational decision for many who seek to make a living, may be excluded from the formal economy, and are distrustful of a public that has treated them in seemingly discriminatory ways.

Consequences: Patchwork ban/permit geographies create opportunities for exploitation

The current patchwork of ban and permit localities produces an uneven geography in which vastly different rules apply to people engaged in the same activities depending on where they are, creating opportunities for people to be exploited and to exploit others in the cannabis industry. Ban-displaced legacy growers who do not have resources to invest in new land and permitting processes—or who fear they will be cut out of the industry as local political winds change—have become a pool of easily exploited knowledge and labor for the large-scale actors rapidly controlling California’s regulated cannabis industry. Meanwhile, the lack of regulatory programs in ban counties means location-bound residents who persist in cultivation are often abandoned to cultivation sites with few guardrails for laborers, the environment, or surrounding communities. This is especially true when bans are more intensive and operations are driven further underground.

Consequently to this patchy geography, cultivators, grow store operators, medical advocates, and other legacy actors consistently pointed to a significant *qualitative* difference in the cannabis industry since legalization. Many discussed the medical collective days in nostalgic terms, describing a culture of reciprocity, gifting, and care. Legacy actors consistently described a cultural transition since legalization, away from a community care ethic and towards a more individualistic and profit-seeking industry. People in both the permitted and unpermitted markets described the current industry culture using terms like “greedy,” “profit-motivated,” “individualistic,” “unkind,” “corrupt,” and in stark difference to their experience in the pre-Proposition 64 era. One legacy cultivator, who had grown cannabis in several counties in northern California, described how, since legalization efforts, “Everyone has to focus on themselves as the individual. [That’s] the goal of these efforts, [to] break up the community support.”

Consequences: Bans can facilitate consolidated grows, multiple sites, and a move to property ownership

Under certain conditions, bans facilitate—counterintuitively—the growth of more and larger unpermitted grows. In banning cultivation activity, authorities encourage bans to function as a kind of prohibitionist enforcement. In the study of drug wars, researchers find that the more enforcement occurs, the more cultivators (and other market actors) adapt to those situations (Magliocca et al. 2019). Throughout our fieldwork, we saw various forms of adaptation. These adaptations only included leaving the cannabis sector altogether when and if it was no longer financially viable (see below).

One adaptation was to combine into larger operations. In places with especially intense ban enforcement, such as San Bernardino and Siskiyou Counties, we noted that more intensive enforcement pushes smaller cultivators out of business, as they are easier objects of enforcement. This spurs remaining cultivators to increase the scale and scope of their operations. One cultivator notes that “maybe the more sophisticated operators are willing to take bigger risks because they know they have the connections to move it and gain a profit.” The cultivator continued, “But it seems like the small [growers], a lot of them used to just be like a family group, [and] if they got enough grief it wasn't worth it.” As ethnographers who have been visiting Siskiyou County since 2018, we noted shifts in the geography and scale of cultivation in some of the residential subdivisions and surrounding areas. When we first visited there were reasonably sized grows (under ninety-nine plants, a level that has historically separated smaller and larger grows, particularly in the medical era) scattered throughout the county and most visibly concentrated in rural residential subdivisions. Since returning in 2022, however, we were surprised to find larger, visible, and potentially more sophisticated operations in and around the areas we had previously visited. Informants described these operations as largely run by Chinese growers and owners, at times in concert with Hmong American residents. These operations were larger, with more greenhouses and more intensive cultivation practices. We found a similar dynamic in San Bernardino County, where intense prohibitionist enforcement led growers to adapt by increasing the scale and intensity of their operations. In both counties, intense enforcement appears to have led to larger, more consolidated cultivation operations, which may impact community structure, worker safety, and environmental health in ways yet to be determined. In particular, it may be that larger, consolidated grows that emerge from intensive ban enforcement can be more likely to employ vulnerable workers in what can appear like labor trafficking. (The actual dynamics of employment in any case are harder to assess, but the *potential* for abuse could increase with larger operations.) It should be noted that scaled-up operations and their negative impacts can be attributed to bans that force cultivation deeper into secrecy. Paradoxically, these negative impacts are used to justify bans even as bans often *create* the conditions for those impacts to occur.

Another trend we noted was toward the multiplication of growing properties. One grower described how, as the intensity of raids has increased in Siskiyou County, he has adapted by purchasing more properties. While he started growing under ninety-nine plants on one property where he lived, in response to raids, he now grows on five separate properties to “spread risk”; if one property is raided, he will not lose his entire season’s harvest. In San Bernardino County, we heard second-hand accounts from knowledgeable people that consolidation of operations under

one firm could result in the spreading of risk across multiple properties, often crossing county jurisdictions to hedge against different county-based enforcement efforts, in what might be thought of as a dual dynamic of firm consolidation and operational dispersion.

As enforcement pressures increased, growers described increasing the intensity of cultivation and using less ecologically based growing practices to grow more product more quickly before detection. Adaptations to grow more, faster, with shorter crop cycles to reduce risks of losing a single, long-season crop to enforcement include: using more fertilizers and other agro-chemicals (which can leach into the surrounding environment and pollute waterways and other ecological resources); cultivating limited genetic stock with a preference for fast-maturing determinant varieties, with potential to limit the genetic diversity of cultivated strains; and shifting to energy-intensive indoor cultivation to reduce risks of visible plant detection. These adaptations, again, were responses to intensified enforcement and ban policies that did not allow for feasible, affordable personal or medical cultivation.

Cultivators also adapted to intensified enforcement by moving their cultivation sites around. In San Bernardino County, some cultivators would construct a cultivation site rapidly for a single harvest turn of approximately three months, enabling them to grow, harvest, and leave before enforcement officials could respond. In response to Operation Hammer Strike, we documented reports of cultivators moving their operations to new sites after being busted, which often involved abandoning prior properties altogether because the rural land market for undeveloped land is relatively inexpensive in the high desert. Those abandoned properties can become nuisances and environmental problems. One white resident of Siskiyou County, a retired legal professional familiar with the cannabis situation, described this cycle by saying, “As quick as they bust a grow, there's another grow popping up. Seems to me like maybe at some point those folks could get sick of being in grass and leave. I think that's the hope. But boy, man it seems like it's not happening fast.” He continued, “There's been so much enforcement stuff going on, but it doesn't seem like it's gotten any less. [It] seems like it's totally whack-a-mole. It seems like, to me, like they get one or two, and there's another one that pops up. [I] just think it's kind of inevitable that as long as there's profit, there's people that are going to jump in.”

In Siskiyou County many Hmong and Chinese cultivators described an economic reality wherein they have invested their (often meager) life's savings into their land and are not able to move out of the neighborhoods where they have settled. What results, then, is a hyper-policed zone of a location-bound, ethnic population. In San Bernardino County, however, we found that cultivators often moved their operations to new locations in response to enforcement efforts in a more classic whack-a-mole scenario. When an operation was raided and shut down, it would often return in another place with the same actors, as cultivators understood that after a bust properties may be subject to heightened, continuous scrutiny.

Other adaptations to enforcement include: camouflaged cultivation facilities and sites; underground or indoor cultivation; changing garden size; operations that distribute gardens across broad swaths of land on single parcels; gardens that avoid environmental “trips” (e.g., water diversion) that bring enforcement; and, in places where landowners are held culpable for cultivation activity on their properties, cultivators have shifted toward purchasing properties to ensure access to land. The latter trend brings about other, new concerns over organization, labor

treatment, and environmental effects. Sophisticated, funded operations adapt to the shutting down of smaller cultivation sites and offer protection to unpermitted farmers that band together, especially when farmers are treated as criminals and outsiders. Self-provisioning of medical or adult-use cannabis has generally suffered under bans.

While localities cannot pass outright bans on self-provisioned adult-use or medical cultivation, many have imposed expensive requirements such as license fees, indoor requirements, and building specifications that are unattainable for residents, especially those with limited resources. The cost of growing one's own medicinal or recreational cannabis (six plants) often requires significant investments in electric, plumbing, security and building enhancements, not to mention the cost, administratively and financially, of permitting. Many jurisdictions create self-provisioning allowances but have yet to permit even one self-cultivator, a sign that local regulations are too onerous.

When counties focus on banning cultivation, they may neglect to inform patients and residents of what they *can* do. Indeed, in some ban counties, there is very little one is allowed to do. This leads to a situation in which medical patients and California residents have to operate in the legal shadows, simply because their ability to provision their own plants has been so restricted by the county. People who cultivate for themselves face legal jeopardy because of localities' infeasible regulations. A lack of clear messaging and jurisdictional variation leaves many patients unclear as to whether their doctors' recommendations are sufficient to cultivate, leading many to be penalized for activity they thought was still protected. This is especially true for elders, those with less formal education, lower English language proficiency, and people uncomfortable with government interactions (e.g., immigrants, felons, people of color).

The only study site where self-cultivation appears to be protected is in Napa County, where residents can grow six plants indoors or outdoors, do not have to seek permits or, for outdoor plants, invest significant funds, and, when conflict arises, are dealt with by code enforcement and not law enforcement. In sum, the ability of patients and residents to access personal and medical cannabis depends upon the jurisdiction within which they reside, the enforcement practices employed, and the permitting and investment requirements placed upon cultivation. The common result is that the ability to self-provision, as written into Proposition 64, is often abridged with "de-facto" bans excluding many Californians from personal and medical cultivation.

Consequences: Bans intensify political and social dynamics in permit cities

When a county bans cannabis cultivation in unincorporated county areas, it leaves cities with the option of banning or permitting. Most municipalities in our sample opted to follow their county's lead and ban cultivation and other commercial activity. Yet, several elected to allow commercial cannabis in various forms: Napa's American Canyon and the City of Napa; Yuba's Marysville; Siskiyou's Dinsmore, Weed, and Mount Shasta; and San Bernardino's Adelanto, Barstow, Needles, Colton, Fontana, City of San Bernardino, and, until recently, Hesperia. These cities were effectively able to corner, or capture, entire regional markets as they became the sole supplier of permits and cannabis product to local populations. Indeed, one retailer has seemingly

targeted cities in ban counties for their unique capture of local markets. While each municipal case has its own unique dynamics, we highlight four trends.

First, some cities have seen significant benefits from becoming hubs of cannabis commerce in otherwise-banned geographies. Needles has established an entire redevelopment program based on cannabis revenue, Adelanto has seen economic growth from allowing major cultivation and manufacturing facilities in its cannabis industry campus zone, and a number of other cities have seen the establishment of relatively successful retail operations that generate revenue and provide cannabis access to local and regional populations.

Second, some permit cities have become susceptible to corruption, as politicians and entrepreneurs angle to control highly valued licenses that will effectively provide cannabis to entire counties or regions. One case of this is Adelanto, where criminal investigations have led to the imprisonment and arrest of local politicians and allegations of bribery by local permit holders (Winton 2021). Another is in the City of San Bernardino, where the mayor allegedly ran a play-to-pay scheme that took money from would-be permittees, some of whom were never granted permits, leading to years of litigation (Nelson and Scott 2019).

Third, a few cities have permitted cannabis but place so many restrictions on it that successful operation is nearly impossible. Colton, for instance, charges high application and permit fees, and imposes licensing requirements that make permits vulnerable to being rescinded (Colton City Code 5.54.290). As of January 2024, no business had opened. Fontana also set high application fees and an inspection policy for personal cultivation that was struck down by a local court. We note that these cities are eligible for state enforcement funds to combat unlicensed cultivation because they have a formal allowance for commercial cannabis.

Finally, ban advocates use permit cities to justify inaction at the county level to enable cannabis access and permitting. Patients and residents often described this as inadequate, as travel to retail centers was often a significant burden, and personal cultivation allowances were overly strict (with the exception of Napa County). Cultivators also saw municipal permitting as an inadequate answer to market access; most could not afford to relocate to or open up commercial sites in permit cities, especially for cultivation sites, which were often required to be indoors (if allowed at all).

Consequences: Bans exacerbate socio-economic disparities

Bans disproportionately harm people with low formal educational backgrounds, those with limited literacy or English language skills, and low-income persons or immigrants. These growers may face challenges to working with local officials, as well as limited trust and communication barriers. People find layered and changing rules regarding cannabis cultivation—particularly the contradiction of statewide legal allowance of cannabis coupled with local bans—unclear. For example, in Siskiyou County, many Hmong American cultivators, especially elders with limited English and literacy, expressed confusion that the county tells them they cannot grow cannabis, but the state of California legalized cannabis. One older Hmong American grower, who had retired from growing cut flowers due to repetitive work injuries, said, “For many of us we are confused because we all have licenses to grow ninety-nine plants from the

doctor who has authority from the state to let us grow ninety-nine plants. Why is the county conflicting with what the state says is legal?” The grower showed us a medical cannabis license that he carries in his wallet, saying, “Our understanding is that the state has authority to make the decision. If it allows us to grow, if we have land, we can grow. Why are the rules from the state not being enforced? Obviously, there's confusion between the state and the county in this very confusing situation.”

We found that, particularly as market prices for cannabis have declined, the people who continue to cultivate in ban localities often have few other livelihood options. Many ban counties are poor and rural, with few economic opportunities. In western Siskiyou County, for instance, many growers have looked to cannabis as one of the few livelihood options available in an economy that has few formal jobs available. In addition to economically marginalized populations, racially and ethnically minoritized groups described facing additional barriers to alternative economic opportunities. In San Bernardino County, for example, we spoke to Latino growers who did not have work authorization in the US, making licit employment impossible. In Siskiyou County, Hmong American residents described their experiences looking for wage work with little success. “Some of us want to work outside of farming, but nowhere will hire us,” a Hmong American grower told us. A Hmong American resident who did not grow cannabis said, “Some people grow because they have to pay their gas and other expenses or because they can't get jobs in Siskiyou. The sheriff's Facebook page is filled with racist comments where they say that all Asians are cartels. So it is hard to get hired in the county.” A local white business owner in Siskiyou County seemed to confirm this perspective, telling us that he would not hire Hmong workers “Because [I] don't trust 'em. It's in their blood to steal.” A Hmong American grower suggested that, if the county wanted to stop cultivation, “They should support people to have other jobs.”

In addition to limited livelihood opportunities, some people continue to cultivate cannabis as an accessible and affordable medicine for themselves, family, and neighbors. This was especially true in poor rural areas, far from medical care. For example, residents in a small town in far-western Siskiyou County have to drive at least two hours to the nearest hospital (in Medford, Oregon), and many residents experience poverty that limits their ability to access institutional medical care. Another formerly homeless man in San Bernardino County moved to the desert, where he can afford land, grows his own medicine to avoid dispensary prices, and uses cultivation as a therapeutic and spiritual practice. In the Yuba County foothills, a number of residents migrated from other states to the area to grow medicine for themselves and have since formed a community of medical cannabis patients, growing cannabis in varying quantities to manage health conditions.

Consequences: Bans aggravate and intensify racial inequities

Cultivation bans have led to racial and ethnic enmity and to conflictive local dynamics between neighbors and in public fora. This is especially true for populations excluded from, or fearful of, public, policymaking processes. This exclusion creates a civic silence, in which enterprising anti-cannabis officials and residents can create and perpetuate bias-inducing ideas about cartels, violence, crime, environmental harm, etc., to garner support and resources for bans and their enforcement. The presence of large-scale “cartels” on private lands is not supported by any evidence we have seen, and was specifically discounted by law enforcement officials in San

Bernardino County, the place we perceived as most likely to witness cartel activity. But, as one Siskiyou County resident (who did not grow cannabis) phrased it, the county government “use[s] the language of cartels to rile people up.” Cartel discourse serves efforts to re-criminalize cannabis actors and banish them from civic engagement.

Racializing rhetoric, which we found in public and media discourses in all four ban counties studied, creates fear and distrust among local populations. Both cultivators and those fearful of them described concern about crime, especially property theft. Racially and ethnically minoritized cultivators described fear of racial targeting by law enforcement so severe that some avoided leaving their properties. One older Hmong American grower, a retired meat processing plant worker, described such fear of intimidating traffic stops at the hands of Siskiyou County police that she only leaves her property two to three times per year to shop for staples. Conversely, racialized rhetoric also frightens non-cultivating residents, such as some in the high desert, Shasta Valley, and Yuba foothills, who fear their communities are being overrun by dangerous outsiders, when evidence is scant that these outsiders pose a significant threat to personal safety. The evidence for “danger” cited by these residents often boils down to protective measures of cultivators to detect raids and prevent theft—both of which are byproducts of bans and their vigorous enforcement, not a product of criminal danger.

Rhetoric that associates certain minoritized populations with organized crime—cartels, gangs, mafia—not only stokes fear on all sides, but also galvanizes support and tolerance for policies that produce racial disparity. For example, in Siskiyou County over 70 percent of people cited for cannabis-related water ordinance violations and who had liens placed on their properties for unpaid cannabis-related fines were Asian American (*Chang et al.*), despite only 1.8 percent of the county’s population being Asian American (US Census 2020). In San Bernardino, those arrested or cited for cultivation represented many races and ethnicities, but often the mechanism for prioritizing enforcement action were complaints by residents who noticed suspicious or non-compliant behaviors. As we have argued elsewhere (Polson and Petersen-Rockney 2019; Polson 2015), complaints and suspicions are often racially inflected, thus bringing more enforcement to bear upon racially marked individuals who stand out from other land users.

Consequences: Bans limit the tools available to address cultivation

Bans limit the tools available to reduce unpermitted cultivation, elevating enforcement as the only response. Prohibition, including bans, does not always stop an activity, especially when that activity is important for livelihoods, household security, cultural practices, medical necessity, or other urgent reasons. What prohibitions and bans always do, however, is forfeit the ability to regulate an activity. Cannabis cultivation bans mean that regulators cannot require certain cultivation practices or parameters or monitor and address negative environmental or labor externalities. Where cannabis is permitted, labor protections are possible, as are compliance standards regarding key questions, such as what pesticides and water sources are used. As one informant phrased it, “Ban it and they’ll come. [If] you regulate you can weed out the bad actors.” In ban localities, the only proactive mechanism available to governments is enforcement. When governments are left with only reactive, post-violation enforcement as a tool, communities find it impossible to institute proactive and preventive regulations.

Environmental scientists who work for state agencies expressed frustration with California’s ban/permit geography. A wildlife expert at the CDFW noted that cannabis is still “hiding,” noting that, “We’re just trying to enforce the same laws everywhere. [We’re] trying to bring them into compliance, not shut them down.” Local bans, however, made this task more complicated, leaving no pathway to compliance and only the option of trying to “shut them down.” An SWRCB employee shared a similar frustration that bans limit the tools available, leaving no pathway to bring cultivators into compliance or to share information about best practices or harm-reduction methods.

Punishment-forward approaches create and amplify distrust and divisiveness. The experience of raids, steep and immediate fines, and other enforcement approaches that do not provide cultivators an opportunity to learn from their mistakes or a pathway to address them, leads to significant fear (box 1). As a Hmong American cultivator in Siskiyou County said, “We need to work together with local government, don’t just hammer us. We need your guidance, we need the government’s help in guidance. We don’t want to be afraid of police, we want to work with them.” But, as this cultivator and many others described, punishment-based enforcement approaches do not allow for information sharing or cooperation. In response, cultivators adapt, sometimes in ways that create risk for workers, ecologies, and surrounding communities. Cultivators also become susceptible to a “cycle of marginalization” in which enforcement and eradication efforts disproportionately impact members of already marginalized groups, pushing them into more marginal economic, social, and geographic positions (Lu, Dev, Petersen-Rockney 2022).

Conclusion: Bans do not consistently achieve stated goals

Cultivation persists because of economic drivers, not lack of enforcement. Bans are often implemented with the goal of eradicating cannabis cultivation, which, as we have shown, they consistently fail to do. Siskiyou County exhibited consistent and adaptive cultivation under intensive enforcement. San Bernardino County saw immediate, year-to-year reduction in unpermitted cultivation as a result of a wrap-around enforcement strategy employing civil and criminal methods to not only eradicate, but to remediate and abate sites. This said, we saw signs of cultivation rebound after enforcement ended. Similarly, Yuba County’s period of intensive enforcement caused short-term cessation and movement of cultivators to other jurisdictions, but lighter enforcement has allowed cultivation to level out and continue. Napa County saw cultivation decline, not as a result of ban enforcement, but of cost pressures (i.e., land, labor) and realistic allowances for personal cultivation. Across these cases, bans do not stop cultivation—they merely delay or dislocate it.

What each of these cases suggest is that bans do not address the core driver of unlicensed cultivation—economic necessity and accessible livelihoods. As long as cultivation is economically viable, cultivators will innovate new methods to avoid enforcement. To enforcers, persistence of unlicensed cultivation is attributed to what experts call “criminal thinking” (Walters 2023), which is traced to a criminal personality. What we have consistently found is not the persistence of a criminal personality or mindset, but the persistence of “livelihood thinking,” traced to the necessity in US society to earn a living. While many cultivators cited economic necessity or security as a cause of persistent cultivation, we saw corroborating evidence of this when many cultivators halted cultivation as prices dropped in 2022–23. This cessation suggests

that economic drivers—not enforcement—predicted people’s sustained involvement in cultivation. Of those who did persist cultivating, despite declining economic benefit, they had more “sticky,” social reasons to continue—hope, sense of community, medical provisioning, or being location-bound with few other economic opportunities. Together, our cases point to the mismatch of logics between the stated aims of ban policies—to stop cultivation—and the driver of cultivation itself—economic necessity.

Although we heard from many government actors and anti-cannabis activists that the State should move to re-felonize cultivation, we are concerned that this move may serve not to stop unpermitted cultivation, but to penalize marginalized populations. Indeed, if livelihood is a main driver of persistent cultivation, as prices drop, only those who are lowest income will continue to find any benefit in an increasingly tight market. In light of California’s value of social equity, intensified enforcement may serve to re-criminalize those who were most vulnerable under the war on drugs.

Recommendations

The below recommendations are evidence-based on findings from this research. We do not present pathways to implementation, which will vary for each recommendation, the scale at which it would need to be pursued, and the authorities and institutions that would need to be involved in development and implementation.

Provide greater protections for medical and personal cultivation across the state

- Ensure personal-use grows are accessible and regulations reasonable across jurisdictions. This could be done by: a) prohibiting localities from imposing onerous regulations (this change would likely require a state ballot initiative); or b) by providing standard boilerplate ordinance language for localities to adopt (which could be provided by the state and voluntary for local jurisdictions to adopt); or c) by establishing carve-outs for property size or zoning type to allow for statewide outdoor cultivation below the six-plant limit (would require working with local jurisdictions to ensure some zoning control while the providing greater state oversight of carve-outs). Through any of these pathways, core protections should include: 1) protections for renters to grow for personal use; 2) protections for outdoor personal-use cultivation (particularly where other gardening is allowed); and 3) reductions or eliminations of onerous requirements such as expensive infrastructure or permit fees. While all of these options would take time and coordination between state and local governments, the state could offer more immediate protection of personal cultivation by requiring localities with extensive requirements for personal-use cultivation (e.g., indoor only, high fees) to conduct cost and feasibility studies to document how their policies do or do not impede Proposition 64 rights to self-provision cannabis. The state may also establish a commission to review local personal-use requirements and ensure that the ability of California residents to produce their own medicine and personal harvest is not being unduly burdened (in line with Proposition 64).
- Create a statewide expedited on-ramp for smaller-scale medical collectives modeled on Proposition 215’s allowances. The state could create a local ban carve-out for small-scale medical growers (under 99 plants), allowing localities to establish land use and zoning

requirements, but prohibiting the complete ban of small-scale medical operations at the local level.

- The state could clarify statewide allowances for personal and medical cultivation and educate enforcement entities, including local law and code enforcement, and agencies such as CDFW and SWRCB, as well as medical professionals and cultivators on what is allowed at state and local levels.

Create boilerplate smaller-scale cultivation regulations at the state-level

- A smaller-scale cultivation program could be administered at the state level, reducing regulatory burdens on local jurisdictions by providing state regulatory capacity and agency staff to manage the program. Local jurisdictions would retain the ability to zone where these farms could be located. This program should set standards for:
 - Maximum cultivation sizes for indoor, mixed light, and outdoor cultivation to reduce overproduction;
 - Facilitating market entry, like access to information on cooperative formation, farmstand, medical collective, or direct-to-consumer sales options, and correlated special allowances to bypass distribution and affiliated licenses;
 - High environmental and labor standards that are economically feasible;
 - Providing reduced regulatory burdens (and a cheaper and faster compliance and permitting process) by, for example, providing state-administered CEQA or CEQA exemptions for farms below designated scales.
- Such a program would:
 - Encourage small-scale and environmentally and socially responsible cultivation;
 - Facilitate smaller-scale, cottage, and legacy cultivation to persistence;
 - Create a pathways for small scale cultivators that want to “do the right thing” but currently have no pathway to permitting in ban localities;
 - Reduce ineffective and inefficient total-ban systems that absorb local government capacity, fuel distrust, and exacerbate cultivation and environmental harms;
 - Help increase equitable access to legal markets for residents across California;
 - Provide capacity through state staffing that would reduce burdens on localities.
- This program could be implemented in two ways:
 - (1) A voluntary “opt-in” model wherein the state would provide standard ordinance language to cities and counties that provide the above protections. An “opt-in” smaller-scale cultivation program would likely reduce the number of banned jurisdictions, as many have banned cannabis cultivation because they do not have the capacity to create a new regulatory system on their own or are concerned about issues arising from large-scale cultivation. This would require drafting model ordinance language and educating officials. It would also, we anticipate, drastically reduce the number of illegal cultivators, as many cultivators would opt into such a program. This option could be implemented at the state-level relatively quickly;
 - (2) A state-level carve-out to local jurisdictions' ability to ban cultivation. This could be modeled after Proposition 64's protections that provide—in theory—a carve-out wherein local jurisdictions cannot ban personal-use cultivation. This option would likely require a state ballot initiative.”
 - Additionally, the DCC could mobilize tier 1 funding to create a team of centralized staff with expertise that could help local governments implement

permit programs and assist cultivators in accessing licenses. State-level support staff could help alleviate capacity shortages at the local level, reduce the “patchiness” of current policies, and reduce the grant needs for localities.

Reform enforcement approaches

- At local and state levels, expand and institute compliance time before fines to allow cultivators to address violations. Educate (and encourage education to) cultivators through outreach by various agencies.
- Stop the practice of punitive code enforcement, consisting of immediate fines, no abatement times, high fine rates, proactive (rather than reactive) enforcement (as is the case with most other code enforcement activities), and little to no education element.
- Require local jurisdictions to match cannabis cultivation enforcement funding with environmental remediation funding, especially if state enforcement assistance is provided, to ensure that sites are not left as environmental hazards.
- Hold landowners, not farm workers, responsible for violations. Work with landlords to remediate after enforcement, including by providing technical and financial assistance for environmental remediation.
- Provide education to county governments on the issues of seating cannabis cultivation enforcement primarily in the sheriff's department, and the benefits of treating cultivation as a land use issue with enforcement primarily in planning/code enforcement agencies.
- Provide “best practices” guidance for enforcement agencies and staff that includes: focusing enforcement capacity on biggest and most environmentally harmful unpermitted grows, creating wrap-around services that includes environmental remediation and technical assistance, facilitating reactive enforcement to complaints instead of officials serving as complainants (with the exception of environmental harms), and empowering planning and zoning staff to lead ban processes (as opposed to law enforcement).
- Oppose efforts to re-felonize cannabis cultivation, which would exacerbate disparities that are well-documented in the war on drugs.
- Do not criminalize workers on unpermitted cannabis grows or victims of human trafficking.
- Discourage the use of “us versus them” rhetoric in law enforcement agencies at state and local levels.

Redirect to state agencies, particularly the California Department of Fish and Wildlife

- Require CEQA for ban policies to evaluate (and compare) the expected environmental impacts of bans themselves as they a) push cultivation into other, often environmentally sensitive, territories, b) encourage intensive growing methods, and c) cause their own environmental impacts via enforcement actions.
- Require CDFW to prioritize educational and prevention campaigns, with assistance to law enforcement only allowed when there is evidence of environmental harm.
- Enroll CDFW to monitor and document (and, when necessary, take enforcement action against) the environmental impacts of enforcement activities, such as site raids and infrastructure destruction.
- Only allow CDFW cooperation in counties in which remediation plans and post-raid resources are in place.

Establish DCC commission to review local-level ban policies and implementation

- To ensure fair enforcement and reduce legal risks for local governments, the DCC should review—through mandatory reporting or regular audits—city and county cannabis-related enforcement reports for a) discriminatory intent, b) unjust or unequal enforcement, especially across racial and ethnic social groups, and c) environmentally negative outcome in ban counties. These efforts should specifically monitor for punitive fines; discriminatory policing (intentional and as outcome); rhetoric that “re-criminalizes” cultivators; and the effects of bans on labor relations, farmer vulnerability, rural poverty, and community and environmental health.
- Work towards reducing the patchwork of cannabis cultivation policies and enforcement strategies across the states to create a more uniform policy landscape that does not push unpermitted cultivation to the poorest and most remote jurisdictions. In addition to policy “guardrails” that narrow the range of local jurisdictional action, the state could facilitate information sharing and best practices that help localities align cannabis cultivation policies with state norms.
- Compare and categorize code enforcement fines for cannabis cultivation and reduce exceptional punishment of cannabis compared to other land uses. Create parity of enforcement/fines for similar activities, whether or not cannabis is present (e.g., the fine for an unpermitted building should be the same for a farmer who grows tomatoes, raises cattle, or cultivates cannabis). Reduce stigma-driven escalations and inequities of cannabis fines.
- Ensure cannabis cultivators have access to similar due process as people who grow other crops, such as time to address issues before fines accumulate and access to legal and technical assistance to mitigate issues.
- Evaluate local cannabis ban and permit programs for signs of corruption, including elite capture, the leveraging of cannabis policy to serve other political agendas, and the use of cannabis bans to meet water reduction targets without addressing other significant water uses.

Support future research

- Research on the costs—financial, environmental, and social—is needed so that localities can make informed decisions about what regulatory pathways they pursue and its costs (since the costs of regulatory programs are currently better understood).
- Research on the environmental consequences and impacts of cultivation ban policies, including the financial costs and environmental impacts of pushing cultivation onto more environmentally sensitive land and the effects of enforcement activities themselves.
- Research on the environmental impacts of cannabis compared with cultivating other agricultural crops, such as comparing water use for cannabis to water use for crops such as alfalfa or grapes, taking scale of typical production (in addition to individual plant needs) into consideration.
- Research on the particular cultivation practices that unpermitted cultivators use, especially the pesticides and water sources used, and their material impacts on soil and water quality.
- Research that examines the parity of code violation enforcement on properties that cultivate cannabis and those that cultivate other crops.

CONCLUSION

Since California court decisions affirmed the ability of localities to ban cannabis in 2011, bans have become a ubiquitous policy response to the complexities of legalization. Cultivation has been banned from over two-thirds of localities, making bans the most common policy choice, and cultivation the most banned activity in the cannabis supply chain. In assuring the passage of Proposition 64, local control and the power to ban were seen as an important element of garnering support for (or at least non-opposition to) legal cannabis, especially among representatives of cities and counties. Our research found that bans rarely achieve their stated goal of reducing unpermitted cultivation, but they do often lead to a suite of consequences with negative impacts on the environment and, especially, minoritized populations.

In this report, across four diverse counties, we explored why bans are implemented and what they do. Some might expect that bans are implemented due to anti-cannabis sentiments. Though we found some evidence for this, anti-cannabis bans also shield other motivations, like preserving agency budgets and powers and protecting valued industries and residents, as we explore in each case study.

Sometimes bans can reduce unpermitted cultivation. This can happen when counties have large amounts of resources and expansive, multi-tactical ban design (San Bernardino), when labor and land are costly and personal and medical cultivation are protected (Napa), and when they can foster informal norms among cultivators through selective enforcement that targets the biggest and most extractive cultivation operations (Yuba). Bans, however, cost counties significant resources, including money, staff capacity, and legal battles (as evidenced in Siskiyou, San Bernardino, and Yuba Counties). Bans create conditions for crime, exploitation, corruption, and the furthering of non-cannabis political agendas (as seen in Siskiyou, San Bernardino, Yuba, and Napa Counties). Bans produce negative environmental consequences through both their enforcement and by pushing cultivators to adapt more intensive growing methods and new cultivation sites with no regulatory oversight (as evidenced in Siskiyou, San Bernardino, and Yuba Counties). Bans also often trigger or exacerbate social inequities, including civic exclusion, racial disparities, and poverty.

In weighing whether bans *work*, one should closely analyze whether they achieve their aims and at what social, ecological, and economic cost. We found bans carry significant costs, particularly for targeted cultivators and communities, and the benefits of bans often accrue to select and already powerful industries, residents, and agencies. In each case, we were struck by the finding that bans, in themselves, do not appear to stop cannabis cultivation. Instead, market conditions and secure economic livelihoods were the main barometers of whether cultivators would persist. As long as economic benefit was possible, cultivation would persist, irrespective of bans or their enforcement. Intensive ban enforcement campaigns might dislocate or delay cultivation, but we found no evidence it would stop unpermitted cultivation. We encourage policy pathways that relieve burdens on county budgets and agencies; adequately consider environmental impacts, including those *caused* by bans and enforcement; support equitable and peaceful rural development; avoid capture by select interests, agencies, and social groups; and ameliorate the forms of inequality and persecution fostered under the war on drugs.

As bans and regulatory programs develop across California, we are witnessing the emergence of a patchwork policy landscape similar to the one that followed alcohol prohibition. Indeed, local control and ban capacity are written into most state cannabis legalization bills across the US. There is some value to this social and geographic variability—for example, a five-acre cannabis farm may not be appropriate in a dense urban area already experiencing housing and water crises like Los Angeles. As communities decide their own paths forward, state governments also have a responsibility to ensure that community interest does not override public concerns for equity, sustainability, justice, and functioning, regulated markets implicit to most legalization efforts.

This report draws attention to the ubiquity of bans and the need to assess them more thoroughly. From homeless encampments to abortion access to fracking, bans are becoming a ubiquitous response to complex policy issues. Cannabis cultivation is no exception. Yet, when politics decide complex social and policy issues by administrative means—through bans on land uses, for instance—the results may harm majorities and minorities. Bans effectively deny the majority of California voters who elected to legalize cannabis the ability to participate in its provisions, and the implementation of bans can have decidedly negative effects on particular populations, especially smaller-scale, legacy, and limited-resource cultivators and members of marginalized groups who have borne the brunt of prohibition and drug wars. Today, some approaches to banning continue to extend or bolster negative dynamics formed under the war on drugs, such as racial disparity in enforcement and stigmatization of poverty. Proposition 64 aimed to break from this history for cannabis markets and the harms, like criminalization and incarceration, it caused, and we should be sure bans do not—wittingly or not—recreate those same harms.

As more state and national governments around the globe legalize cannabis, California's experience on the vanguard of this trend offers important lessons. To preserve smaller-scale farms that bolster rural communities, to create farming systems that are environmentally sustainable, to reduce disparities produced by drug wars that continue to reverberate into the present, people need equitable access to resources and markets. Cultivation bans inherently prevent equal access to participation in the cannabis industry. The uneven patchwork of regulations produced by outright bans and onerous permitting processes that create de-facto bans for many don't just disadvantage and exclude those who happen to live in ban localities or those with limited resources. Bans also create winners—large-scale and resource-rich industry actors who can capture markets that exclude smallholders; adjacent industries thirsty for water and hungry for land, like wine grape and alfalfa producers; and local political actors, especially in law enforcement, who can garner more resources when cannabis is treated as stigmatized crop. But unlike the political and legal regimes that govern other types of farming, cannabis cultivation policy is not yet entrenched. California can continue to correct course to foster an agricultural market that is more fair, just, and sustainable.

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