

**Los Angeles County  
Advisory Working Group  
on Cannabis Regulation**

Meeting Five:  
**CANNABIS CULTIVATORS,  
MANUFACTURERS, AND OTHER  
BUSINESSES**  
*AUGUST 10, 2017*

**PREPARATION PACKET**

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## SECTION 1:

# The Cannabis Supply Chain

Cannabis retailers are the most visible part of the cannabis industry, and what most community residents think of when they discuss commercial cannabis legalization. However, pursuant to state law and commencing on January 1, 2018, cannabis and cannabis products will be required to pass through a complex supply chain, including cultivation, manufacturing, distribution, and testing, before they reach retail.

There are 20 separate license types for cannabis businesses under state law.<sup>1</sup> These license types generally fall within the following categories:

- Cultivation
- Manufacturing
- Laboratory testing
- Distribution
- Retail
- Microbusiness

Cannabis **cultivation** includes any activity involving the planting, growing, harvesting, drying, curing, grading, or trimming of cannabis, including cannabis nurseries.<sup>2</sup> The Los Angeles County (LA County) Board of Supervisors has directed that **only indoor cultivation** be allowed in unincorporated areas.<sup>3</sup>

Cannabis **manufacturing** involves the making of cannabis products such as extracts and edibles, including the compounding, blending, extracting, infusing, and other preparation of a cannabis product.<sup>4</sup> Manufacturers require a different state license depending on whether they use exclusively nonvolatile or no solvents in the manufacturing process, or whether they use volatile solvents (a solvent that is or produces a flammable gas or vapor subject to explosion or combustion).<sup>5</sup>

Cannabis **testing laboratories** perform tests on cannabis and cannabis products. Testing laboratories must be independently accredited and licensed by the state and local jurisdictions.<sup>6</sup>

Cannabis **distributors** procure, sell, and transport cannabis and cannabis products between licensed cannabis businesses.<sup>7</sup>

Cannabis **retail** consists of the sale or delivery of cannabis and cannabis products to consumers. Cannabis retailers were discussed in detail in the preparation packet for *Meeting Four: Cannabis Retailers*.<sup>8</sup>

A cannabis **microbusiness** may be licensed under state law to cultivate cannabis on an area less than 10,000 square feet and to act as a licensed distributor, as a manufacturer using nonvolatile or no solvents, and also as a cannabis retailer.<sup>9</sup>

Along with cannabis retailers, the businesses described above constitute the commercial cannabis supply chain from “seed to sale.” Many of the issues and considerations covered during *Meeting Four: Cannabis Retailers* are also relevant to non-retail cannabis businesses. Other issues are unique to certain business types. For example, energy usage and odor control are two issues that pertain primarily to cannabis cultivation, while manufacturing raises issues such as the use of volatile solvents for extraction. Considerations unique to each business are described below.

## SECTION 2:

# Considerations for Cannabis Cultivation

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## **I. ODOR**

### **A. Issue background**

Cannabis cultivation can produce a significant amount of odor.<sup>10</sup>

Odors can affect both the quality of life in local communities and public health. Many substances that cause odors in outdoor air are not present at levels that can cause serious injury or long-term health effects. Nonetheless, nuisance odors can sometimes trigger physical symptoms including headache, nausea, and irritation of the eyes, nose, and throat, as well as psychological symptoms such as stress, depression, and anxiety. Young children, the elderly, and pregnant women may be more susceptible to these effects.<sup>11</sup>

In LA County, multiple agencies are responsible for regulating odor. Generally, the LA County Department of Public Health is responsible for investigating *indoor* odor-related complaints, while the Southern California Air Quality Management District has jurisdiction over *outdoor* air quality and area-wide odors.<sup>12</sup> State law and local regulations address nuisance odors in general, prohibiting the “discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.”<sup>13</sup> For land uses that have a high potential to generate odors, such as landfills, site-specific odor management plans and monitoring programs are often required as a condition of approval.<sup>14</sup>

Odors are difficult to regulate due to the often subjective nature of odor perception, the lack of established methods for quantifying odor concentrations, and the difficulties of pinpointing the source of an odor (particularly in dense urban areas).<sup>15</sup>

### **B. Odor control approaches in other jurisdictions**

Seattle’s general odor control ordinance applies to cannabis cultivation and manufacturing, in addition to several other specific industrial land uses, and requires that odors be vented at least 10 feet above sidewalk grade and away from other uses that are within 50 feet of the vent. Seattle’s ordinance also authorizes the planning

director, in consultation with the local air pollution agency, to require additional odor mitigation measures as needed on a project-specific basis.<sup>16</sup>

Like Seattle, Denver regulates odors associated with cannabis cultivation and manufacturing using its general nuisance odor ordinance. Cultivators and manufacturers must submit an odor control plan to Denver officials describing “the odor(s), if any, originating or anticipated to originate at the premises and the control technologies to be used to prevent such odor(s) from leaving the premises.”<sup>17</sup> In addition, odor complaints are one of the factors that Denver officials may consider when deciding whether to renew a cannabis cultivator’s local license.<sup>18</sup>

One unique aspect of Denver’s odor ordinance is its inclusion of a quantitative threshold. If an odor is still detectable after the odorous air has been diluted at a 1:7 ratio with odor-free air, it exceeds the threshold. City inspectors use a device called the “Nasal Ranger” to determine whether odor concentrations exceed this threshold.<sup>19</sup>



*A Denver health inspector uses the “Nasal Ranger” to investigate an odor complaint.*  
Source: Jeremy P. Meyer, “When pot smells in Denver, the Nasal Ranger goes in to investigate,” Denver Post (November 10, 2013), accessed at <http://www.denverpost.com/2013/11/10/when-pot-smells-in-denver-the-nasal-ranger-goes-in-to-investigate/>.

**C. Summary of relevant state law provisions and potential LA County actions**

<b>Odor</b>		
<b>State Law</b>	<b>Considerations</b>	<b>Potential County Actions</b>
<p>A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, injury or damage to business or property.</p> <p>The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.</p> <p>[South Coast Air Quality Management District, Rule 402; Cal. Health &amp; Safety Code § 41700(a)]</p>	<ul style="list-style-type: none"> <li>• Odor is inherently subjective and difficult to quantify</li> <li>• May not apply to cannabis cultivation, if it is considered an “agricultural operation”</li> </ul>	<ul style="list-style-type: none"> <li>• Require cannabis cultivators and manufacturers to submit an odor control plan as part of their licensing application</li> <li>• Provide cannabis businesses with informational resources on odor mitigation methods</li> <li>• Clarify enforcement procedures and responsibilities for odor complaints</li> <li>• Investigate the feasibility of adopting quantitative odor thresholds</li> </ul>

**Discussion Questions**

1. What rules, regulations, and best practices can LA County adopt to control odors from cannabis cultivation facilities?
2. What should LA County require as part of an odor mitigation plan to ensure that cannabis cultivators have the necessary equipment in place and operational practices to minimize offsite odor?
3. How can LA County partner with cannabis cultivators to ensure that business owners are aware of and utilize best practices to control odor?

## II. ENERGY

### A. Issue background

Indoor cannabis cultivation is highly energy-intensive. Some estimate that indoor cannabis cultivation in California currently consumes the equivalent of 3 percent of the state's electricity, or the equivalent of one million homes.<sup>20</sup> According to data from Boulder County, Colorado, the average electricity consumption of a 5,000 square foot indoor cultivation facility is about 41,808 kilowatt-hours monthly. On a per-square-foot basis, this equates to more than seven times the average consumption of a typical commercial use, or the equivalent of 66 average households.<sup>21</sup>

As the graphic below illustrates, most of this energy is used by lighting fixtures, air conditioners, dehumidifiers, and fans, all of which are used to optimize growing conditions and maximize the yield and potency of cannabis plants.



*The carbon footprint of indoor cannabis cultivation.* Source: Evan Mills, "The Carbon Footprint of Indoor Cannabis Production," *Energy Policy* 46 (2012), pp. 58-67, accessed at <http://evanmills.lbl.gov/pubs/pdf/cannabis-carbon-footprint.pdf>.



The large amount of energy required for indoor cannabis cultivation presents challenges to growers, utilities, and governments alike. For many growers, electricity is the single largest category of expense, representing up to half the wholesale cost of cannabis.<sup>22</sup> For utilities, the significant energy demands can strain existing transmission infrastructure, and sometimes necessitate the construction of new transmission lines and substations.<sup>23</sup> For local and state governments, the energy demands of cannabis production may conflict with climate sustainability goals, if that energy is generated with fossil fuels that produce greenhouse gas.

## ***B. Energy consumption rules in other jurisdictions***

Generally speaking, there are two approaches to reducing or mitigating energy consumption. “Demand-side” measures aim to reduce the amount of energy consumed, for example, by using more efficient equipment or cultivation practices. “Supply-side” measures seek to reduce the environmental impacts of energy production, for example, by obtaining a larger percentage of energy from renewable sources such as solar and wind.

Boulder County, Colorado, requires commercial cannabis cultivators to report all energy usage (including electricity, natural gas, propane, and bio-fuels), and to offset 100 percent of energy used with renewable energy generated on-site, or alternatively by paying a fee of 2.16 cents per kilowatt-hour into the Boulder County Energy Impact Offset Fund. These funds are then used to fund local carbon offset projects, such as the development of more renewable energy, and to educate growers on best practices with regards to energy usage. In addition, the detailed energy usage data reported by growers provides researchers with valuable information to develop more efficient equipment and practices for indoor cannabis cultivation.<sup>24</sup>

In Oregon, a number of organizations and agencies are involved in efforts to increase the energy efficiency of the cannabis industry, including utilities, nonprofits, and the state Department of Energy. Many of the efforts in Oregon, Colorado, and Washington extend beyond regulations and mandatory requirements, and include voluntary programs such as rebates and incentives, technical assistance and outreach, and “green” product certifications.<sup>25</sup>

Efforts to increase energy efficiency in cannabis cultivation have faced several challenges in other states, including:

- Limited data on energy consumption and the factors that affect it;
- A lack of established best practices and proven technologies;
- Resistance by cultivators to adopt technology or practices that could reduce the potency or quantity of their crop; and
- The high cost of capital and difficulty obtaining traditional financing, which discourages up-front investments in energy efficiency.<sup>26</sup>

### **C. Summary of relevant state law provisions and potential LA County actions**

State law does not separately address energy usage by indoor cannabis cultivators. In proposed regulations prepared by the State Department of Food and Agriculture, which have not been adopted, indoor cannabis cultivators would be required to ensure their electrical power sources are provided by any combination of the following:

- On-grid electrical power with at least 42 percent renewable sources;
- Onsite zero net energy renewable sources providing at least 42 percent of the cultivation facility's electricity;
- Purchase of carbon offsets for any portion of power above 58 percent not from renewable sources; or
- Demonstration that the equipment to be used would be 42 percent more energy efficient than standard equipment, using 2014 as the baseline year for such standard equipment.<sup>27</sup>

The LA County Board of Supervisors has directed that cannabis regulations “promote sustainable businesses with limited impact on the environment, including mandates to achieve the lowest feasible energy and water consumption by utilizing methods such as renewable energy, energy efficient lighting, techniques to reduce overall lighting requirements, and water recycling[.]”<sup>28</sup> Some options available to LA County to achieve this directive could include:

- Requiring a set percentage of energy usage (up to 100 percent) to be provided by renewable sources, either on-site or off-site;
- Charging an offset fee to mitigate onsite electrical usage and to fund sustainability programs;
- Requiring detailed reporting on energy usage; and
- Partnering with utilities and nonprofits to provide cannabis cultivators with informational resources, technical assistance, and incentives/rebates.

#### ***Discussion Questions***

1. How can the County effectively support the development and adoption of energy-efficient technologies and practices in cannabis cultivation?
2. What would be an appropriate mix of mandatory requirements and voluntary incentives to reduce or mitigate energy used by indoor cannabis cultivators?
3. What “supply-side” requirements should LA County require to minimize electricity usage? What “demand-side” requirements?

### **III. WATER**

#### **A. Issue background**

There are limited data available on the amount of water needed to grow cannabis indoors, and the amounts may range widely depending on cultivation practices. The Colorado Department of Water Resources estimates that cannabis plants consume between 0.25 and 4 gallons per plant per day.<sup>29</sup>

Indoor cannabis cultivation is generally less water-intensive than outdoor cultivation.<sup>30</sup> Nonetheless, minimizing water usage and maximizing efficiency is in the interests of cannabis cultivators, utilities, and governments alike.

#### **B. Approaches to regulating water consumption in other jurisdictions**

In Oregon, Washington, and Colorado, water usage for cannabis cultivation is generally governed by the same laws and regulations that apply to water usage for other agricultural activities.<sup>31</sup> Generally, these rules require a cannabis cultivator to identify the water source it plans to use, and to demonstrate that it has legal rights to the water. For cultivators who plan to use a municipal water supplier, this is relatively straightforward. However, establishing a legal right to use groundwater or other non-municipal water sources is significantly more complex. Largely due to the limited availability of water in arid regions of the United States, many western states have developed intricate legal frameworks to regulate the use of water. In particular in Colorado, the complicated nature of water rights, and the importance of water to agricultural operations of all kinds, has led to legal battles in recent years, some of which have involved commercial cannabis cultivation.<sup>32</sup>

In much of the western U.S., the federal Bureau of Reclamation (BOR) plays a key role in supplying water and selling it to local irrigation districts, which in turn supply farmers and other individual customers. In 2014, the agency issued a memorandum prohibiting the use of water supplied by BOR for cannabis cultivation. The memorandum cited the Controlled Substances Act, and stated that violations of the policy would be referred to the U.S. Department of Justice, but did not elaborate further on enforcement procedures.<sup>33</sup>

**C. Summary of relevant state law provisions and potential LA County actions**

<b>Water</b>		
State Law	Considerations	Potential County Actions
<p>An application for a license for cultivation issued by the Department of Food and Agriculture shall identify the source of water supply.</p> <p>[Cal. Bus. &amp; Prof. Code § 26060.1(a)]</p>	<ul style="list-style-type: none"> <li>There are over 200 different water supply agencies in LA County (compared with only a handful of electric utilities), which may complicate efforts to implement new policies and gather data related to water usage<sup>34</sup></li> </ul>	<ul style="list-style-type: none"> <li>Require detailed reporting on water usage</li> <li>Require the use of water recycling, irrigation sensors, and other technologies or techniques to increase water efficiency</li> <li>Partner with utilities and nonprofits to provide cannabis cultivators with informational resources, technical assistance, and incentives/rebates</li> </ul>
<p>The Department of Food and Agriculture shall include in any license for cultivation all of the following:</p> <p>(1) Conditions requested by the Department of Fish and Wildlife and the State Water Resources Control Board to (A) ensure that individual and cumulative effects of water diversion and discharge associated with cultivation do not affect the instream flows needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability; (B) ensure that cultivation does not negatively impact springs, riparian habitat, wetlands, or aquatic habitat; and (C) otherwise protect fish, wildlife, fish and wildlife habitat, and water quality. The conditions shall include, but not be limited to, the principles, guidelines, and requirements established pursuant to Section 13149 of the Water Code.</p> <p>(2) Any relevant mitigation requirements the Department of Food and Agriculture identifies as part of its approval of the final environmental documentation for the cannabis cultivation licensing program as requirements that should be included in a license for cultivation.</p> <p>(3) A condition that the license shall not be effective until the</p>	<ul style="list-style-type: none"> <li>Primarily applies to outdoor cultivation, which is not expected to be authorized in unincorporated LA County</li> </ul>	

<b>Water</b>		
<b>State Law</b>	<b>Considerations</b>	<b>Potential County Actions</b>
<p>licensee has demonstrated compliance with Section 1602 of the Fish and Game Code or receives written verification from the Department of Fish and Wildlife that a streambed alteration agreement is not required.</p> <p>[Cal. Bus. &amp; Prof. Code § 26060.1(b)]</p>		
<p>If the State Water Resources Control Board or the Department of Fish and Wildlife finds, based on substantial evidence, that cannabis cultivation is causing significant adverse impacts on the environment in a watershed or other geographic area, the Department of Food and Agriculture shall not issue new licenses or increase the total number of plant identifiers within that watershed or area.</p> <p>[Cal. Bus. &amp; Prof. Code § 26069(c)(1)]</p>	<ul style="list-style-type: none"> <li>Primarily applies to outdoor cannabis cultivation, which is not expected to be authorized in unincorporated LA County.</li> </ul>	<ul style="list-style-type: none"> <li>Consider establishing local provisions to review the effects of cannabis cultivation on sensitive environments and to take those effects into consideration upon license renewal.</li> </ul>

***Discussion Questions***

1. What regulations or offset programs should the County put into place to ensure that water usage by cannabis cultivators is sustainable and of minimum impact?
2. Should LA County require the disclosure of water usage data by cultivators to inform future sustainability efforts for cannabis cultivation?

***IV. PESTICIDES***

***A. Issue Background***

Pesticides have been used to prevent pest infestation in cannabis crops, as with other agricultural operations.

However, unlike with other crops, the federal government has declined to establish standards for the use of pesticides on cannabis, citing the illegal status of cannabis under federal law. The California state legislature, in adopting the Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA), declared that “the United States Environmental Protection Agency has not established appropriate pesticide tolerances

for, or permitted the registration and lawful use of, pesticides on cannabis crops intended for human consumption pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.),” and “the use of pesticides is not adequately regulated due to the omissions in federal law, and cannabis cultivated in California for California patients can and often does contain pesticide residues.”<sup>35</sup>

Under MAURCRSA, the State Department of Pesticide Regulation must develop guidelines for the use of pesticides in the cultivation of cannabis and residue in harvested cannabis.<sup>36</sup> Cannabis cultivators are also precluded from using any pesticide that has been banned for use in California.<sup>37</sup>

This approach is similar to pesticide regulatory efforts in Colorado, Washington, and Oregon, where the department of agriculture in each respective state has established guidelines for the use of pesticides on cannabis.<sup>38</sup>

Beginning in 2018, all cannabis and cannabis products sold in California will be required to undergo laboratory testing prior to sale. State regulations will establish maximum thresholds for each pesticide, and products that exceed the threshold may not be sold to consumers.<sup>39</sup> While lab testing is intended to protect consumers from health impacts associated with pesticide residues, there will continue to be the potential for impacts on the environment from improper use and storage of pesticides, as well as potential occupational risks for those employed in commercial cannabis cultivation.

### ***B. Potential LA County actions with respect to pesticides***

In California, county agricultural commissioners are primarily responsible for monitoring and enforcing state law regarding pesticide applications within each respective county.<sup>40</sup> While the LA County Agricultural Commission is expected to be involved with pesticide regulation for cannabis cultivation, because the State Department of Pesticide Regulation has not yet issued guidance on acceptable pesticides for cannabis, it is unknown at this time what specific pesticide measures the LA County Agricultural Commissioner will enforce.

Some actions LA County could take to regulate pesticides, in addition to enforcing state pesticide rules, include:

- Providing informational resources to cannabis cultivators, including best practices for pesticide use, and non-chemical alternatives such as integrated pest management;
- Establishing pesticide, fungicide, and rodenticide limitations or exclusions in areas with sensitive environmental conditions; and
- Conducting unannounced inspections and testing of cannabis and cannabis products to ensure pesticides are within acceptable limits and that no banned pesticides are being used.

### *Discussion Questions*

1. What steps should LA County take to ensure that only acceptable pesticides are used in cannabis cultivation, and that pesticide levels do not exceed maximum thresholds?
2. What education efforts could LA County provide to cultivators that could help cultivators avoid incorrect or illegal pesticide use?

## SECTION 3:

# Cannabis Manufacturing

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### I. BACKGROUND ON CANNABIS MANUFACTURING

Cannabis manufacturing involves making cannabis products from cannabis flower and other parts of the cannabis plant. Manufactured cannabis products can include edible cannabis products, tinctures, topical applications such as lotion, hash, oils, extracts, and other forms of concentrated cannabis. The images below show some of the products offered by cannabis manufacturers.

#### Examples of manufactured cannabis products



From left to right: chocolate bar, chocolate covered espresso beans, and mints  
Source: <http://kivaconfections.com/products/>.





From left to right: lotion, drops, and beverage. Source: <http://dixieelixirs.com/products/>.



From left to right: cookie and blondie bar. Source: <http://www.korovaedibles.com/>.



From left to right: hash, “shatter,” and wax.  
 Source: <https://www.leafly.com/news/cannabis-101/the-great-wide-world-of-cannabis-concentrates> and <https://www.leafly.com/news/cannabis-101/what-is-cannabis-oil-shatter-and-wax>.

## **II. CONSIDERATIONS FOR CANNABIS MANUFACTURERS**

### **A. Extraction and the use of volatile solvents**

Cannabis manufacturing often involves methods to extract byproducts from cannabis plant material to create concentrated cannabis products. Some concentrated cannabis products are sold directly at retail, such as butane honey oil or “BHO.” Concentrated cannabis products may also be incorporated or infused into other finished products, such as edible cannabis products.

Cannabis extraction can be achieved without solvents by mechanical means (e.g., by shaking cannabis plant material in ice water),<sup>41</sup> or with the use of solvents.<sup>42</sup> Solvents are considered either nonvolatile, such as carbon dioxide, or volatile, such as butane.<sup>43</sup>

Volatile solvents have perhaps received the greatest level of attention because of their potential to explode, primarily in “do-it-yourself” home applications.<sup>44</sup> Explosions have been destructive, resulting in injuries, deaths, and significant property damage.<sup>45</sup>

This has led to some local jurisdictions to propose banning cannabis manufacturing using volatile solvents.<sup>46</sup> However, some cannabis industry advocates argue that volatile solvent manufacturing is safe when done professionally.<sup>47</sup> The fire department for the City of Seattle has issued special administrative regulations governing cannabis extraction with flammable gases, including detailed requirements for extraction equipment, exhaust systems, electrical systems and appliances, and warning alarms.<sup>48</sup> The fire department for the City and County of Denver has issued similar special regulations, and requires explosion-proof rooms where volatile substances are used to extract cannabis.<sup>49</sup>

### **B. Other considerations for cannabis manufacturers**

In addition to concerns over manufacturing utilizing volatile solvents, other concerns include safety and security due to the value of cannabis products produced by manufacturers<sup>50</sup> and the potential for nuisance odors from manufacturing sites related to the amount of cannabis stored and processed on the site. Product theft and diversion by employees or those with access to manufacturing facilities are other potential issues, which by some estimates account for 90 percent of financial and product loss for cannabis businesses.<sup>51</sup>

Preparation of manufactured cannabis products must also be closely regulated to ensure that products are not contaminated, adulterated, or otherwise harmful to consumers. Multiple reports have identified mold, bacteria, and pesticides contained in edible cannabis products in concentrations that could sicken consumers, especially those with compromised immune systems who may be consuming cannabis products for medicinal purposes.<sup>52</sup>

Finally, manufactured cannabis products must be homogenized to ensure cannabis is evenly distributed throughout the product, and accurately labeled to identify the potency of the product. Reports have shown that many edible cannabis products currently marketed and sold to consumers contain lower or high concentrations of psychoactive THC and other cannabinoids than labeled.<sup>53</sup>

### III. SUMMARY OF RELEVANT STATE LAW PROVISIONS AND POTENTIAL LA COUNTY ACTIONS

Cannabis Manufacturers		
State Law	Considerations	Potential County Actions
<p>Edible cannabis products must be:</p> <ul style="list-style-type: none"> <li>• produced and sold with a standardized concentration of cannabinoids not to exceed 10 milligrams of THC per serving</li> <li>• delineated or scored into standardized serving sizes if the cannabis product is in solid form</li> <li>• homogenized to ensure uniform disbursement of cannabinoids throughout the product</li> <li>• manufactured and sold under sanitation standards established by the State Department of Public Health</li> <li>• Provided to consumers with sufficient information to enable the informed consumption of the product, including the potential effects of the cannabis product and directions as to how to consume the cannabis product</li> </ul> <p>[Cal. Bus. &amp; Prof. Code § 26130(c)]</p>	<ul style="list-style-type: none"> <li>• The California Department of Public Health, Office of Manufactured Cannabis Safety, is expected to propose regulations governing cannabis manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>• Consider local regulations to support enforcement of state rules for cannabis product preparation and labeling</li> <li>• Establish local recall procedures to respond to reports of contaminated, adulterated, or mislabeled cannabis products</li> </ul>
<p>State standards, requirements, and regulations regarding health and safety, environmental protection, security, food safety, and worker protections are minimum standards; local jurisdictions may establish additional standards, requirements, and regulations.</p> <p>[Cal. Bus. &amp; Prof. Code § 26201]</p>	<ul style="list-style-type: none"> <li>• The California Department of Public Health, Office of Manufactured Cannabis Safety, is expected to propose regulations governing cannabis manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>• Consider additional safety regulations to govern the use of volatile solvents in the manufacturing process</li> <li>• Consider adopting health code regulations to ensure cannabis product safety</li> </ul>

### *Discussion Questions*

1. Should LA County allow cannabis product manufacturing utilizing volatile solvents? If so, what additional requirements should LA County consider to ensure volatile solvent manufacturing is safe for employees and those who live and work near cannabis manufacturers?
2. What security and odor control requirements should LA County consider for cannabis manufacturers?
3. What considerations unique to cannabis manufacturing should LA County consider as it develops environmental sanitation (health code) standards for cannabis manufacturers?

## SECTION 4:

# Cannabis Distributors, Testing Laboratories, and Microbusinesses

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## **I. CANNABIS DISTRIBUTORS**

Cannabis distributors are a fundamental part of the cannabis supply chain. Under state law, cannabis distributors are the only licensed business type that can transport inventory between licensed cannabis businesses.<sup>54</sup> Distributors are also responsible for ensuring that third-party laboratory testing is completed, and that all cannabis and cannabis product labeling and packaging meet state requirements.<sup>55</sup> Lastly, distributors are responsible for collecting and remitting taxes on behalf of cultivators and retailers.<sup>56</sup>

Alcohol producers and retailers must utilize independent distributors to take alcohol from producers to retailers.<sup>57</sup> In contrast, cannabis retailers, manufacturers, and cultivators can also hold distributor licenses, provided the distribution business' premises are "separate and distinct."<sup>58</sup> For this reason, it is unknown whether distributors will more often than not be associated with other licensed businesses, or whether independent distributors will play a major role in the cannabis market.

Some issues associated with cannabis distributors include establishing security measures while products are stored and in transit,<sup>59</sup> and product tracking and compliance procedures.<sup>60</sup>

## **II. TESTING LABORATORIES**

Testing laboratories are the only cannabis businesses that must be separately and independently licensed.<sup>61</sup> Owners and employees of a testing laboratory cannot have an interest in or be employed by another cannabis business type, including retail, cultivation, manufacturing, and distribution.<sup>62</sup> Licensed testing laboratories must be accredited as required by the State Bureau of Cannabis Control (Bureau).<sup>63</sup>

With limited exceptions, no cannabis or cannabis product can be sold at retail unless a representative sample of the cannabis or cannabis product has been tested by a licensed testing laboratory.<sup>64</sup> Testing laboratories must test samples for the following:

- Whether the THC and other cannabinoid content conforms to the product label; and
- Whether contaminants present in the testing sample are within an acceptable range to be established by the Bureau, including residual solvents, foreign material such as hair or insects, microbial impurities, and residual levels of volatile organic compounds (VOCs).<sup>65</sup>

Testing laboratories are required to destroy any remaining cannabis or cannabis product samples after testing is complete.<sup>66</sup>

In other jurisdictions where adult-use cannabis is legal, concerns with testing laboratories include:

- Having too few licensed testing laboratories, resulting in disruptions to the cannabis supply chain. In Oregon, strict testing standards and a relatively small number of accredited testing laboratories caused product shortages that reportedly caused some businesses to close.<sup>67</sup>
- Testing results that are inconsistent across laboratories.<sup>68</sup>
- Potentially fraudulent testing results by laboratories that are incentivized to approve samples for financial reasons.<sup>69</sup>

For these reasons, regulators are concerned not only with have a sufficient number of licensed testing laboratories, but with ensuring that testing results from licensed testing laboratories are accurate and consistent across laboratories.

### **III. MICROBUSINESSES**

A state “microbusiness” license entitles the licensee to cultivate cannabis on an area less than 10,000 square feet and to act as a licensed distributor, a manufacturer utilizing no or nonvolatile solvents, and retailer.<sup>70</sup> Some see cannabis microbusinesses as a way for small businesses to enter the market.<sup>71</sup>

State law generally requires microbusinesses to comply with standards applicable to cultivators, distributors, and retailers.<sup>72</sup> Like retailers, microbusinesses are subject to rules requiring state licensing authorities to consider whether granting a microbusiness license would result in an excessive concentration of retailers or microbusinesses where the proposed business would operate.<sup>73</sup> Moreover, because microbusinesses will cultivate, manufacture, distribute and sell cannabis and cannabis products at retail, considerations applicable to cultivators, manufacturers, distributors, and retailers are all applicable to microbusinesses.

### *Discussion Questions*

1. What security and other considerations are unique to cannabis distributors, and what regulations should LA County implement locally to address those concerns?
2. What steps can LA County take to ensure that a sufficient number of licensed testing laboratories are available locally to test cannabis and cannabis products sold within LA County?
3. What measures should LA County put into place to verify that licensed testing laboratories are providing reasonably consistent and accurate testing results?
4. Does allowing microbusinesses create opportunities for small businesses to enter the cannabis market? Should LA County incentivize microbusinesses to locate in unincorporated areas and, if so, what regulations should LA County put into place to ensure that impacts associated with microbusinesses are mitigated?

## SECTION 5:

# Location Requirements for Non-Retail Cannabis Businesses

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### I. WAYS TO LIMIT THE LOCATION AND NUMBER OF CANNABIS BUSINESSES

The preparation packet for *Meeting Four: Cannabis Retailers* detailed the considerations that local regulators take into account when deciding where cannabis retailers can locate.<sup>74</sup> As described in the preparation packet for *Meeting Four: Cannabis Retailers*, ways that local governments control the location and number of cannabis retailers include:

*For more on where cannabis businesses can locate, refer to the preparation packet for Week 4: Cannabis Retailers, pages 3-9, available at:*  
<http://bit.ly/2uiWe8V>

- Zoning;
- Buffering from “sensitive uses;”
- Establishing minimum distances between cannabis retailers; and
- Numerical and concentration limits on the number of retailers.<sup>75</sup>

The strategies for controlling the location and number of other types of cannabis businesses are the same, although the policy considerations that inform locational and numerical controls vary by business type.

### II. ZONING

With respect to zoning, the LA County Board of Supervisors directed departments to prepare regulations that:

- Allow cannabis cultivators, manufacturers, and distributors in **industrial** zones; and
- Allow testing laboratories in **industrial** and **commercial** zones.<sup>76</sup>



The Board of Supervisors did not specify zoning for cannabis microbusinesses. Because such businesses include cultivation and manufacturing, the Board of Supervisors may decide to limit microbusinesses to industrial zones only.

### III. **BUFFERING, DISTANCING, AND NUMERICAL AND CONCENTRATION LIMITS**

Under state law, any cannabis business may not be located within a 600-foot radius of a school (K-12), day care center (including preschools), and youth center (including, for example, youth membership clubs and video arcades), unless the local government specifies a different radius.<sup>77</sup>

However, cannabis cultivators, manufacturers, distributors, testing laboratories, and microbusinesses each present unique operational considerations that may influence whether local regulations should alter the existing radius requirements under state law.

For example --unlike cannabis retailers -- cultivators, distributors, and manufacturers are likely to operate without drawing attention to their premises because they do not sell to consumers and because unnecessary attention may create security concerns.<sup>78</sup> However, as described in detail above, other considerations include odors emanating from cultivation and manufacturing facilities, the potential for explosions associated with the manufacturing process, and security concerns at licensed premises and in vehicles that transport cannabis and cannabis products stemming from the value of the products being grown, stored, and transported.

The chart below compares some of the considerations for each cannabis business type. These considerations may affect where each business type should be located.

<b>Considerations for Cultivators, Manufacturers, Distributors, Testing Laboratories, and Microbusinesses</b>					
<b>Retailers</b>	<b>Cultivators (Indoor)</b>	<b>Manufacturers</b>	<b>Distributors</b>	<b>Testing Laboratories</b>	<b>Micro-businesses</b>
<ul style="list-style-type: none"> <li>• Visibility</li> <li>• Odors</li> <li>• Security concerns</li> <li>• Impacts associated with customer traffic</li> <li>• Loitering</li> <li>• Second-hand smoke</li> <li>• Access to youth</li> <li>• Advertising and signage</li> </ul>	<ul style="list-style-type: none"> <li>• Odors</li> <li>• Energy requirements</li> <li>• Hazardous chemicals (e.g., pesticides)</li> <li>• Security concerns</li> <li>• Traffic associated with the transportation of cannabis products</li> <li>• Noise from equipment and employees</li> </ul>	<ul style="list-style-type: none"> <li>• Odors</li> <li>• Security concerns</li> <li>• Safety concerns associated with the use of volatile solvents</li> <li>• Traffic associated with the transportation of cannabis products</li> <li>• Noise from equipment and employees</li> </ul>	<ul style="list-style-type: none"> <li>• Odors</li> <li>• Security concerns</li> <li>• Traffic associated with the transportation of cannabis and cannabis products</li> </ul>	<ul style="list-style-type: none"> <li>• Security concerns</li> <li>• Impacts associated with the transportation of samples and customer activity</li> </ul>	<ul style="list-style-type: none"> <li>• Same concerns as retail businesses, small cultivators, and nonvolatile solvent manufacturing</li> </ul>

#### IV. APPROACHES TAKEN BY SEATTLE, DENVER, AND PORTLAND

Local governments where commercial adult-use cannabis is legal have taken different approaches with respect to locational and numerical limits for cannabis businesses other than retailers. The chart below describes the approaches taken in Denver, Seattle, and Portland.

Locational Requirements for Cannabis Cultivators, Manufacturers, Distributors, and Testing Laboratories in Other Jurisdictions				
City	Business Type	Buffering from Sensitive Uses	Minimum Distance Between Businesses	Limits on the Number of Businesses
Denver	Cultivation <sup>79</sup>	1,000 feet. schools, residential districts	None	<p><i>Citywide:</i> Maximum 311 cultivation locations citywide, and 467 cultivation + retail locations</p> <p><i>Local:</i> No licenses may be issued in the five “statistical neighborhoods” with the highest number of existing cultivation businesses in any given year</p>
	Manufacturing <sup>80</sup>	None	None	None
	Distribution <sup>81</sup>	None	None	None
	Testing Laboratories <sup>82</sup>	None	None	None
Seattle	Cultivation <sup>83</sup>	<p>1,000 feet. elementary and secondary schools, playgrounds</p> <p>250 feet. child care centers, game arcades, libraries, public parks, public transit centers, and recreation centers or facilities</p>	None	None
	Manufacturing <sup>84</sup>	Same as cultivation	None	None
	Distribution	No comparable category	No comparable category	No comparable category

Locational Requirements for Cannabis Cultivators, Manufacturers, Distributors, and Testing Laboratories in Other Jurisdictions				
City	Business Type	Buffering from Sensitive Uses	Minimum Distance Between Businesses	Limits on the Number of Businesses
	Testing Laboratories	No comparable category	No comparable category	No comparable category
Portland	Cultivation <sup>85</sup>	None	None	None
	Manufacturing <sup>86</sup>	None	None	None
	Distribution <sup>87</sup>	None	None	None
	Testing Laboratories <sup>88</sup>	None	None	None

## V. SUMMARY OF POTENTIAL LA COUNTY ACTIONS AND CONSIDERATIONS

Summary of Potential Locational Requirements and Numerical/Concentration Limitations for Cannabis Businesses other than Retail	
Potential County Actions	Considerations
<ul style="list-style-type: none"> <li>Identify “sensitive uses” or other land uses that should be buffered from cannabis businesses</li> </ul>	<ul style="list-style-type: none"> <li>Sound policy considerations should guide the identification of buffered land uses and appropriate distances</li> <li>Schools (K-12), day care centers (including preschools), and youth centers (including youth membership clubs) are already identified as “sensitive uses” under state law, requiring a 600-foot buffer, but the County can set lower or higher buffer distances<sup>89</sup></li> <li>Nuisance odors have been a problematic in other jurisdictions<sup>90</sup></li> </ul>
<ul style="list-style-type: none"> <li>Establish minimum distances between cannabis businesses</li> </ul>	<ul style="list-style-type: none"> <li>Not required under state law</li> <li>Effective to reduce the concentration of cannabis businesses</li> <li>Some jurisdictions allow clustering of cultivators, manufacturers, distributors and testing laboratories</li> <li>Minimum distances could result in inequitable distribution of cannabis businesses</li> <li>Minimum distances could result in the presence of dispensaries in more communities, as opposed to concentrated in a single area</li> </ul>

**Summary of Potential Locational Requirements and Numerical/Concentration Limitations for Cannabis Businesses other than Retail**

Potential County Actions	Considerations
<ul style="list-style-type: none"> <li>Establish numerical or concentration limits</li> </ul>	<ul style="list-style-type: none"> <li>State law excessive concentration limits apply to microbusinesses, but not cultivators, manufacturers, distributors, or testing laboratories<sup>91</sup></li> <li>Provides greater locational control within specific geographic areas</li> <li>Other factors, such as crime, can be taken into account</li> <li>Limiting the availability of testing laboratories and distributors could result in unintended impacts to the cannabis supply chain</li> </ul>

***Discussion Questions***

1. What buffers should LA County establish for cultivators and manufacturers to ensure compatibility with surrounding land uses, especially with regard to odors, security, and other considerations?
2. Should LA County establish buffers for distributors and testing laboratories that are different from or more restrictive than the 600-foot buffer required under state law? Why?
3. Should LA County place concentration or numerical limits on cultivators and manufacturers? What should those limits be?
4. Should LA County require cultivators, manufacturers, distributors, and testing laboratories to be a certain distance from other cannabis businesses? What policy considerations support requiring or not requiring such distance rules?
5. Are there any features unique to microbusinesses that LA County should take into account when establishing zoning, buffering, distancing and concentration rules for microbusinesses?

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- <sup>81</sup> Denver Code of Ordinances §§ 6-214.1, 6-214.2, note 79, supra.
- <sup>82</sup> Denver Code of Ordinances § 6-215, note 79, supra.
- <sup>83</sup> Seattle Municipal Code § 23.42.058(C)(1) and (4), accessed at [https://library.municode.com/wa/seattle/codes/municipal\\_code?nodeId=TIT23LAUSCO\\_SUBTITLE\\_IIILA\\_USRE\\_CH23.42GEUSPR\\_23.42.058MA](https://library.municode.com/wa/seattle/codes/municipal_code?nodeId=TIT23LAUSCO_SUBTITLE_IIILA_USRE_CH23.42GEUSPR_23.42.058MA).
- <sup>84</sup> Seattle Municipal Code § 23.42.058(C)(1) and (4), note 83, supra.
- <sup>85</sup> Portland City Code § 14B.130.040, accessed at <https://www.portlandoregon.gov/citycode/article/622750>.
- <sup>86</sup> Portland City Code § 14B.130.040, note 85, supra.
- <sup>87</sup> Portland City Code § 14B.130.040, note 85, supra.
- <sup>88</sup> Portland City Code § 14B.130.040, note 85, supra.



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<sup>89</sup> Cal. Bus. & Prof. Code § 26054(b).

<sup>90</sup> Megan Arellano, “Denver’s smelliest areas will face new scrutiny under odor rule change,” *Denverite* (November 28, 2016), accessed at <https://www.denverite.com/denvers-smelliest-areas-22696/>.

<sup>91</sup> Cal. Bus. & Prof. Code § 26051(c).