Attn: Amber Morris

**Regulatory Goal #1**

**DEFINE TERMS USED IN CANNABIS CULTIVATION**

The Program will need to define terms to ensure regulations are implemented uniformly across the state. What do these terms mean to you? Terms not defined by the MCRSA such as:

- **Canopy** - Technically canopy is the area of plant foliage described by a shadow on the ground. A problem arises when using this definition. The canopy area changes during a plants growth. At initial planting, the foliage canopy is small and at maturity it is large. So a better definition of canopy is to use the area designated for planting and final plant size including the area between the plants that are not covered with foliage.

- **Flowering** - Plants reproduce by flowering. This flowering can be forced or is natural in timing. Cannabis has male or female plants. Currently, female plants have flowers that are more desirable. Since cannabis is an annual plant (the plant dies after flowering), flowering is the end of the plant’s life. Immature - Is the early and initial stage of a plant’s growth. Since immature plants are small, they take up less space and produce less plant material that would be used by humans. Immature plants are vital for continued productions because cannabis is an annual plant and dies at the end of it’s growth season. Immature plants must be used to replace plants that have flowered and died.

- **Mixed light cultivation** - Is the use of artificial lighting and natural lighting, whether indoors or outside.

- **Premises** - Is the area used for the production of cannabis. This could include areas for storage, parking lots, buildings, greenhouses, offices, and water tanks. It could also mean parcel numbers used by the county to define lots or parcels.

- **Propagate** - Is the process of creating another generation of plants in order to continue production.

**Regulatory Goal #2**

**DEFINE THE APPLICATION PROCESS AND REQUIREMENTS FOR LICENSING**

The Program is considering using an online application process, as well as a traditional paper method. Which application method would you prefer?

Using both is best. Copies of ID’s or other information that might not be scanned easily and emailed, could be mailed. Personally I’d prefer online. Online should be used in tracking product through all channels.

The Program is considering a weapons and firearm ban at cultivation sites to protect State enforcement staff. How will that affect you?

This consideration is a complete violation of the 2nd Amendment to the US Constitution for self protection. Criminals choose locations that are not protected so they have easy victims. If this prohibition is required, then the department will be liable for any losses or damages that result from this regulation. Professional enforcement staff will be considered a security risk if they descend upon a secured premise without profession consideration and action. Professionals give professional consideration and make appointments. Scheduled appointments will be treated in the utmost professionalism and care. It will be with the greatest of pride to have inspectors see how well we care for the environment and how professional we are.

The Program is planning to charge a non-refundable application processing fee to cover resources required to review the application components. In order to determine the application fee, the Program will need good estimates on how many cultivation applications are expected. How many applications do you anticipate submitting?

We anticipate needing 3 levels licensing for cultivation, and one license for processing. In this age of computers, the process of licensing should be easily set up in a database program. This should cost very little to process an application.

**Regulatory Goal #3**

**IDENTIFY THE CULTIVATOR LICENSE TYPES BY LIGHT SOURCE AND SITE SIZE; CLARIFY ALLOWABLE LICENSE COMBINATIONS; OUTLINE RENEWAL PROCESS AND SET LICENSING FEES**

Licensees are prohibited from obtaining licenses from more than two license categories. For example, a licensed manufacturer of cannabis products may also hold a cultivator license, but would not be allowed to then obtain a dispensary license. Additionally, the Program is considering issuing the same applicant several cultivator licenses as long as the total canopy does not exceed four acres. What is the acreage you feel is reasonable for the cap?
Four acres is an artificial limit. The limit should be based upon the impact on the locale. If watering 4 acres drains a creek, then the 4 acres are too much. If 10 plants affect a neighbor adversely, then they are too much. We have access to more than 1440 gallons of water per day in a secure area that is out of sight from any public viewing. Each mature plant will require about 4 gallons of water per week. This water can sustain 2520 mature plants. 2520 plants would cover over 8 acres of land. This area does not include any area needed to start new plants, process mature plants into product, or securely store any product. This area would not include any are needed to research any new strains to improve future product.

How about for indoor and mixed light?

Indoor or mixed lighting area would be limited by the impact that they would have on the environment, just like outdoor. If mixed lighting is used (using lights at night), will this light pollution impact any neighbors? If so, then that should be the limiting factor.

How will this impact your business model?

We will challenge any limitations that are artificially set. If they are based upon established and consistently applied limits that impact others in the community, then that is reasonable. Consider cannabis growing on a similar platform to growing grapes for wine production.

When does a cultivator also need a manufacturing license?

If a cultivator simply dries their product, then that is NOT processing nor manufacturing, so no, they should not need a manufacturing license. If they convert their dried product into joints or any form of concentrating (creating "dabs"), then they are NOT just cultivating, they are processing to a manufactured product and should have a manufacturing license.

Are joints, dry sieving, and water concentrating a form of manufacturing or within the scope of cultivation?

At what point does testing the dried product become manufacturing? If one ounce of dried product is concentrated (into dab form), that is used for sending to a lab for testing, this should NOT be considered manufacturing. BUT if a cultivator turns their entire crop into joints, dry powder, or concentrated form, then YES, they should have a manufacturing license. So the limit should be the amount of processing and the quantity of processing that then leads to whether it is manufacturing or not.

The Program is required to fully cover its operational costs through licensing and application fees. The Program anticipates analyzing and updating the licensing fees frequently as the industry changes over the next several years. What size cultivation site(s) do you anticipate applying for initially?

We anticipate cultivating only outdoors and starting our plants indoors. The outdoors canopy area will start at a few thousand square feet but progress in the following year to cover 8 acres. Starting plants indoors is typically required during our winter season, but since the plants are very small, they can be started in an area of a few hundred square feet. This indoor starter area should not change in size in the following years. Our desire is to eventually be fully organic and seek certification.

How many separately licensed cultivation sites would you like to apply for?

The outdoor acreage is on 2 separate APN's Zoned A-2, Use is irrigated farmland. The indoor plant starter location has yet to be determined. Both outdoor and indoor will not be noticeable to neighbors in any shape or form.

The Program is responsible for establishing the amount of artificial light units considered reasonable for a mixed light/light deprivation cultivation sites. What do you think is a reasonable amount of lighting to be used and still be considered a mixed light cultivation site?

Power usage in a safe manner should be limiting factor. Does the electricity used pose a safety hazard? Does the heat generated from the lights pose a safety hazard?

The Program is required to limit the number of Type 3 (largest license type) licenses issued. What method do you consider fair for establishing these limits?

We will challenge any limitations that are artificially set. If they are based upon established and consistently applied limits because there are impacts to others in the community, then that is reasonable. Cannabis growing should be considered very similar to growing grapes for wine production.

Regulatory Goal #4
SPECIFY REQUIREMENTS TO MITIGATE ENVIRONMENTAL HEALTH AND PUBLIC SAFETY ISSUES

The Program will require licensees to enter into a compliance agreement to reduce environmental impacts. How do you currently address potential environmental impacts at a cultivation site?

Environmental impacts should be considered EXACTLY like any other farming product. This is why I have suggested a similar model of regulation for growing grapes for wine production.

Do you conduct targeted pesticide use?

Yes, but only when absolutely necessary. In fact, natural biologic and organic methods are just a little more expensive but produce a much better product without damaging the environment. Currently there are multiple lawsuits against state agencies who used weed killer along the sides of roads that are
blamed for killing 10’s of acres of grapes via air movement. We plan on sustainable dry farming and organic methods to produce our product.

Do you use optimal watering times?

Not just times but method of watering. This is why I keep using grapes as a reference point. Sub-terranean drip irrigation puts the water deeper (1-3 feet below the surface) to where the roots are. This eliminates any water on the ground surface which in turn eliminates competition from weeds or pests. This also allows for liquid fertilizer to be applied directly into the soil around the roots. This eliminates any fertilizer evaporating into the air as air pollution.

Do you recycle water and/or cultivation materials?

Any plant material that is not acceptable as product, is composted and used to enhance the soil. No water is allowed to runoff when Sub-terranean drip irrigation is used.

The compliance agreement will also require the licensee to have specific security measures in place. How do you currently secure your cultivation site? Alarm system? Fencing? Security guard?

We have greenhouse fabric covering the plants from direct viewing. There is fencing, and personal who live on the farm. How can a security guard protect the cultivation if they are unarm’d? We have yet to learn how 8 acres of farmland can be protected by video surveillance. If no one knows about the location nor can view the plants, this is the first 2 steps in security. So please don’t publish the address of the cultivation sites.

The Program will also have specific requirements for cannabis nurseries. Do you sell plants to a dispensary for sale to patients? Or do you sell plants to cultivators for flower production?

We only plan on selling our fully grown plant product to distributors. We will do our own internal cultivation and will not sell to retail.

How much research and development goes on at a nursery site? Do you regularly propagate from seed?

As part of our continuing goal of improved plant quality, we do our own genetic cross breeding. This is for our own internal production and not for other cultivators, distributors, or retail.

Regulatory Goal #5
OUTLINE CULTIVATOR RESPONSIBILITIES FOR COMPLIANCE INSPECTION

The Program will specify when licensees must make their site available for inspection and require that the cultivation site be safe for inspection. What measures do you currently take to make your site safe for inspection?

It would be a great pleasure to have professional inspection. As soon as we have a license, we would welcome an inspection. Professionals make appointments. A surprise inspection could be considered a potential security threat as our site is NOT open to the public. Professional farming keeps the site safe for everyone. If your inspectors feel safer with concealed carry of a firearm, then so much the better as I feel safer when people are trained in concealed carry of a firearm.

The Program will require retention of specific records and that they be made available upon request. What type of records do you currently retain?

Why retain any records when those records can be almost instantly transmitted to the Program when the data is acquired? There has been a lot written about how to track medical marijuana at each and every step along the way; from nursery to patient. People will avoid doing this paperwork UNLESS it is so easy that it is more work to avoid the paperwork than just doing it. The easiest and fastest is to have EVERY plant identified by a QR code. At each step along the path, this QR code gets scanned and the date, time, purpose of scan, location of scan, person/company scanning, and any notes get entered into the Program QR System in almost real time. The scans can be done by a cellphone application. See http://www.mobile-qr-codes.org/how-do-i-use-qr-codes.html or visit a phone’s app store (examples include the Android Market, Apple App Store, BlackBerry App World, etc.) and download a QR code reader/scanner app. http://ccmft.columbia.edu/enhanced/noted/qr_codes_explained.html

The website www.scan.me/qr_code_generator can make the QR code from the QR Code Content. In the following example, the QR code identifies a plant number, the date, and action (Planted). This QR Code will be attached to the plant.
All of the actions to this plant and eventually all the material from this plant will be tracked by this QR code. Additional QR Codes or QR Code information can be added into the Program Database to follow this plant material with the final QR Code entered when some plant material is sold to a patient. Tracking from cultivator to patient by simply scanning a QR Code by a cell phone application. The Program Application would do the scanning and report the information within the QR Code. This information would be automatically entered into the Program Tracking Database. The Database would do some error checking and compliance checking, and report any needed information to a human overseeing the Program. Simple to follow and difficult to avoid.

**Regulatory Goal #6**

**SPECIFY TRACK AND TRACE REQUIREMENTS**

Licensees will be required to provide the Program with information about the movement of cannabis. This information will be used to protect the public if there is a safety or health concern, to ensure legally grown product does not get diverted, to ensure illegal product does not end up in the regulated marketplace, and to prioritize inspections by Program inspectors and law enforcement. What is the current flow of cultivation at your site? At what points in the cultivation process do you think movement tracking would be valuable (planting, moving from veg area to flowering area, harvest, etc.)?

All of the actions to any plant and eventually all the material from any plant will be tracked by each plant’s individual QR code. Additional QR Code information can be added into the Program’s Database for following individual plant material from nursery, cultivator planting, cultivator trimming, cultivator destruction of plant due to plant disease, cultivator harvesting, cultivator drying, plant samples sent to testing laboratory, transferring plant material to a licensed transporter, sold to a distributor, transporter moves plant material to a dispensary and finally when the dispensary sells the plant material to a licensed patient. These QR Codes are entered at each step in the movement of medical marijuana. This provides detailed information of plant material from planting, growing, harvesting, transporting, testing, distributing, dispensary, and finally when sold to a patient. Tracking from cultivator to patient by simply scanning a QR Code by a cell phone application. The Program Application would do the scanning and report the information within the QR Code. This information would be automatically entered into the Program Tracking Database. Database would do some error checking and compliance checking, and report any needed information to a human overseeing the Program. Simple to follow and difficult to avoid.

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[http://ccnmtl.columbia.edu/enhanced/noted/gr_codes_explained.html](http://ccnmtl.columbia.edu/enhanced/noted/gr_codes_explained.html)
The website [www.scan.me/qr_code_generator](http://www.scan.me/qr_code_generator) can make the QR code from the QR Code Content. In the following example, the QR code identifies a plant number, the date, and action (Planted). This QR Code will be attached to the plant.
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*SPECIFY TRACK AND TRACE REQUIREMENTS*

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Diversion
Calaveras County Planning Director Peter Maurer,

WHY IS THIS APPLICATION PENDING AND NOT DENIED?

2016-756, PENDING, COMMERCIAL, JOZERO ZAMUDIO, 54001011, 5073 BUCKBOARD DRIVE, MIXED LIGHT, 22000

1. There was a Felony Report filed against this commercial grow, 5073 Buckboard Drive, Copperopolis, CA 95228 on April 22, 2016 for Threating crime:intimidation;terrorize (copy provided directly to the Calaveras Planning Dept on 07/26/2016).

2. Approximately one week later, the Sheriff’s were called out again to this location by a neighbor for intimidation;terrorize after the growers rushed down to greet him with AR15s and he passed by their driveway on a public road!

3. On another occasion, an off-duty Volunteer Sheriff was harassed by this same grow!

4. The applicant Jozer Zamudio was arrested on 07/24/2016 for disorderly conduct: alcohol according to the Calaveras County Sheriff’s Booking Log.

5. A worker at this same grow, Alejandro Cruz Plasencia was arrested by CHP on 07/24/2016 for a DUI Alcohol/Drugs, DUI Alcohol/.08 percent.

This is outrageous that he has a PENDING application! I demand you take action on this grow IMMEDIATELY! If the Urgency Ordinance was put in place to get rid of the “bad guys” then when do you plan on getting rid of this one??
Please respond TODAY!
<table>
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<tr>
<td>647(F) PC</td>
<td>Disord Conduct:alcohol</td>
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**ZAMUDIO, JOZER BLAZE**
5073 BUNKBOARD DR
COPPEROPOLIS, CA 95228

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<td>01:25</td>
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<td>7260 OBYRNE'S FERRY RD CO</td>
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**PLASENCIA, ALEJANDRO CRUZ**
505 PARKLAND ST
ARCATA, CA 95521

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<tr>
<td>23152(B) VC</td>
<td>Dui Alcohol/0.08 Percent</td>
<td>M</td>
<td></td>
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**SCALES, MARTIN NIGEL**
4565 MORGAN RD

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<td>M</td>
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</table>
Ms. Morris,

Please find attached The Nature Conservancy’s comments on the California Department of Food and Agriculture’s Medical Cannabis Cultivation Program. We look forward to working with you as the program is developed.

Best,

The Nature Conservancy
California Chapter
201 Mission Street
4th Floor
San Francisco CA 94105
September 30, 2016

California Department of Food & Agriculture
Attn: Amber Morris
Medical Cannabis Cultivation Comments
1220 N Street, Suite 400
Sacramento, CA 95814

RE: The Nature Conservancy’s Comments on the California Department of Food and Agriculture’s Medical Cannabis Cultivation Program

Dear Ms. Morris,

The Nature Conservancy (Conservancy) appreciates the opportunity to provide scoping comments as the California Department of Food and Agriculture prepares a Programmatic Environmental Impact Report (PEIR) for the implementation of a statewide medical cannabis cultivation program.

Over the past several years, the Conservancy has researched the enormous environmental impacts associated with marijuana cultivation. Our analysis demonstrates the adverse impacts marijuana cultivation has had on the health of California’s land, water supply, and wildlife. In particular, the irrigation methods used in marijuana cultivation are especially concerning during this historic drought. These techniques can dry up or deplete sensitive water sources; pesticides and other chemicals used can poison wildlife and pollute public waterways; and, clear cutting and land clearing destroy endangered species habitat and cause serious erosion. The Conservancy has maintained that California must ensure that the environment is considered in any initiative, legislative or regulatory framework that is enacted.

The Medical Cannabis Regulation and Safety Act (MCRSA) enacted in 2015 by the California Legislature, directed the California Department of Food and Agriculture (CDFA) to create the Medical Cannabis Cultivation Program (MCCP). The MCRSA requires the MCCP to carry out specific provisions, including develop a licensing program for medical cannabis cultivation and evaluate the MCCP’s potential environmental impacts in compliance with the California Environmental Quality Act.

The Conservancy appreciates the consideration and enforcement of environment provisions in the MCCP as required by MCRSA. Below are comments on the Medical Cannabis Cultivation Program Outline of Draft Regulations.

Cultivation Requirements

The Conservancy supports listing environmental requirements for all license types, particularly that licensees must demonstrate compliance with the State Water Resources Control Board’s guidelines for the diversion and use of water for cannabis cultivation. The cultivation license must also require all applications to show proof of a legal right to use the water needed for the cultivation operation. Such proof could take various forms, including: evidence of connection to a municipal or community water system or a valid permit, license, or registration approved by the State Water Resources Control Board. We also appreciate the requirement that all operations
demonstrate compliance with the Regional Water Quality Boards’ waste discharge order covering cannabis operations.

The MCRSA requires that the MCCP ensure that cultivation will not negatively impact springs, riparian wetlands, and aquatic habitats, thus we recommend that siting cannabis cultivation near rivers, creeks, wetlands or other sensitive habitats be prohibited, requiring a buffer of 200 feet.

The MCRSA also requires that cannabis cultivation is conducted in accordance with state and local laws related to land conversion, grading, woodland and riparian habitat protection, and similar matters. To that end, we recommend that the MCCP include requirements to protect forest and rangeland from conversion. The MCCP regulations should require applicants to comply with the California Environmental Quality Act (CEQA) provisions regarding conversion of Timber Production Zones (TPZs). Allowing cannabis cultivation on lands zoned TPZ is not compatible with the spirit of the California Timberland Productivity Act of 1982 and should not be allowed under this program. The Act specifically aimed to maintain the limited supply of timberland to ensure its current and continued availability for the growing and harvesting of timber and compatible uses, and to discourage premature or unnecessary conversion of timberland to urban and other uses.

Rangelands similarly supply important natural habitat value and are oftentimes integral to wildlife corridors necessary to support fish and wildlife, and are already under threat of conversion to other uses. Recent real estate trends threaten both ranching and forest lands, and the large intact landscapes they help protect, and the MCCP should not further encourage large-scale conversion or fragmentation of these habitats.

Enforcement

The Conservancy strongly believes that active consultation with the California Natural Resources Agency, particularly the Department of Fish and Wildlife, and the State Water Resources Control Board will ensure compliance with regulations intended to protect the environment. The Department of Fish and Wildlife and the State Water Resources Control board should have authority to inspect a licensee’s cultivation site(s) for compliance with the MCRSA and to recommend that a license be revoked, suspended or denied if a licensee is not in compliance with applicable environmental laws and regulations. Both the Department of Fish and Wildlife and the State Water Resources Control Board have extensive experience with on-the-ground enforcement of environmental regulations related to cannabis cultivation.

The Conservancy also recommends that the MCCP ensures that county ordinances allowing cannabis cultivation are in compliance with CEQA and the regulatory framework established in MCRSA before the MCCP issues cultivation licenses in that county. This would safeguard that the licensed cannabis cultivation is conducted in accordance with state laws.

Thank you again for the opportunity to provide comments on MCCP. We look forward to working with the California Department of Food and Agriculture as the program is developed.

Sincerely,

The Nature Conservancy
Thank you for this opportunity to provide input. Although I haven't answered all questions I hope you find the ones I did useful. If you have any questions please feel free to contact me.

On Wed, Sep 7, 2016 at 12:33 PM, <cdfa.mcep@cdfa.ca.gov> wrote:

CDFA needs your input. We are conducting preliminary activities to draft regulations for statewide commercial medical cannabis licensing. There are several areas of the draft regulations that would benefit from industry, public, and government agency input. To help us as we develop regulations, we have put together a number of questions for your valuable input. Please take a moment to review the questions and provide your insights by submitting your written input. Comments can be submitted by email (cdfa.mcep@cdfa.ca.gov) or by mail to:

Department of Food and Agriculture
MCCP
1220 N Street, Suite 400
Sacramento, CA 95814

CDFA will review and consider your comments to help develop the regulations for our Program. Please provide your comments by September 30th to allow the Program ample time to consider them. Comments received after September 30th will be considered as time permits.

If you are interested in learning more about MCCP, please visit our website.

Thank you,

-MCCP team

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Regulatory Goal #1 DEFINE TERMS USED IN CANNABIS CULTIVATION: The Program will need to define terms not defined by the MCRSA such as canopy, flowering, immature, mixed light cultivation, premises and propagate to ensure regulations are implemented uniformly across the state. What do these terms mean to you?

Regulatory Goal #2 DEFINE THE APPLICATION PROCESS AND REQUIREMENTS FOR LICENSING: The Program is considering using an online application process, as well as a traditional paper method. Which application method would you prefer? • The Program is considering a weapons and firearm ban at cultivation sites to protect State enforcement staff. How will that affect you? • The Program is planning to charge a non-refundable application processing fee to cover resources required to review the application components. In order to determine the application fee, the Program will need good estimates on how many cultivation applications are expected. How many applications do you anticipate submitting? ANSWER: Online. The application process itself is daunting. With most questions geared towards the control of ownership and money, this industry hasn’t been guided on important issues with regards to health and safety. I can spray arsenic as a pesticide on my crop without any detection because it’s not screened. You wouldn’t be the wiser. Your sole focus is on revenue and not service. For you to propose another fee for processing applications is reflective on your intents. Money, fees, taxes, money. Stop! With the gross amount of fees already collected please provide quality, safety, and public education. I will not be planting any crops.

Regulatory Goal #3 IDENTIFY THE CULTIVATOR LICENSE TYPES BY LIGHT SOURCE AND SITE SIZE; CLARIFY ALLOWABLE LICENSE COMBINATIONS; OUTLINE RENEWAL PROCESS AND SET LICENSING FEES: Licensees are prohibited from obtaining licenses from more than two license categories. For example, a licensed manufacturer of cannabis products may also hold a cultivator license, but would not be allowed to then obtain a dispensary license. ANSWER: My point exactly. What is the purpose for separating licenses and controlling ownership? How does this effect public health and safety? Additionally, the Program is considering issuing the same applicant several cultivator licenses as long as the total canopy does not exceed four acres. What is the acreage you feel is reasonable for the cap? ANSWER: why are you capping crop size? You are putting governmental controls on how to run a business. If your intent is to allow fair play and water usage, what does the state department of agriculture recommend? How about for indoor and mixed light? ANSWER: With increase energy required having a solar tax credit would solve and address some of your issues with regard to the impact on the existing energy grid. How will this impact your business model? When does a cultivator also need a manufacturing license? ANSWER: A cultivator, like any other “approved source” should already be considered a manufacturer. They should not be required to pull more permits. Redefine them in the rewrite of the regulation. Hold them to the same standards of any other manufacturer when controlling the chemical, physical, and biological risks. Are joints, dry sieving, and water concentrating a form of manufacturing or within the scope of cultivation? ANSWER: Yes. The end product will have a route of entry by inhalation. You may have controlled some of the biological risks when smoked but not a chemical or even physical. • The Program is required to fully cover its operational costs through licensing and application fees. The Program anticipates analyzing and updating the licensing fees frequently as the industry changes over the next several years. What size cultivation site(s) do you anticipate applying for initially? How many separately licensed cultivation sites would you like to apply for? • The Program is responsible for establishing the amount of artificial light units considered reasonable for a mixed light/light deprivation cultivation sites.
What do you think is a reasonable amount of lighting to be used and still be considered a mixed light cultivation site? • The Program is required to limit the number of Type 3 (largest license type) licenses issued. What method do you consider fair for establishing these limits?

Regulatory Goal #4 SPECIFY REQUIREMENTS TO MITIGATE ENVIRONMENTAL HEALTH AND PUBLIC SAFETY ISSUES: The Program will require licensees to enter into a compliance agreement to reduce environmental impacts. How do you currently address potential environmental impacts at a cultivation site? Do you conduct targeted pesticide use? Do you use optimal watering times? Do you recycle water and/or cultivation materials? • The compliance agreement will also require the licensee to have specific security measures in place. How do you currently secure your cultivation site? Alarm system? Fencing? Security guard? • The Program will also have specific requirements for cannabis nurseries. Do you sell plants to a dispensary for sale to patients? Or do you sell plants to cultivators for flower production? How much research and development goes on at a nursery site? Do you regularly propagate from seed? ANSWER: Great points. With public education and strict oversite you can assist cultivators to grow responsibly. I don’t think signing an agreement will control some of the impacts. Require solar, water reuse, organic cultivation.

Regulatory Goal #5 OUTLINE CULTIVATOR RESPONSIBILITIES FOR COMPLIANCE INSPECTION: The Program will specify when licensees must make their site available for inspection and require that the cultivation site be safe for inspection. What measures do you currently take to make your site safe for inspection? • The Program will require retention of specific records and that they be made available upon request. What type of records do you currently retain?

Regulatory Goal #6 SPECIFY TRACK AND TRACE REQUIREMENTS: Licensees will be required to provide the Program with information about the movement of cannabis. This information will be used to protect the public if there is a safety or health concern, to ensure legally grown product does not get diverted, to ensure illegal product does not end up in the regulated marketplace, and to prioritize inspections by Program inspectors and law enforcement. What is the current flow of cultivation at your site? At what points in the cultivation process do you think movement tracking would be valuable (planting, moving from veg area to flowering area, harvest, etc.)? The Program anticipates this will be different for indoor vs outdoor cultivation

Regulatory Goal #7 STATE LICENSE VIOLATIONS AND APPROPRIATE PENALTIES: The Program will inspect licensed cultivation sites to ensure compliance with license requirements. If an inspection reveals non-compliance or a local authority informs the Program of a non-compliance issue, the Program will proceed with an investigation. If the investigation determines that a violation occurred, the Program can revoke a license and/or may assess fines. What would a reasonable time-frame for conducting a hearing regarding a violation? The Program will also be defining minor, moderate and serious violations and corresponding penalties. What type of license violation would you consider minor? Moderate? Serious? ANSWER: What does the state allow as reasonable time, 30 days? If a cultivators is putting the consumer at risks by applying unlawful pesticides or glass on flowers then this is intent to do harm.

OVERALL ANSWER: Thank you for this opportunity. I am somewhat surprised that these regulations have been written exempting this industry from already existing regulations i.e. food safety regulations, manufacturing regulations. Public health is public health just ask Tropical smoothie with their latest
Hepatitis A outbreak from strawberries, or Dole Green with Listeria from spinach. Without inundating this emerging industry with more regulations, wording can be added to the regulations to not only alleviate your staff from reviewing policies and procedures and thus requiring MORE fees to fund this program but control the risks to the end user. Wording can include “validation shall be provided from Process Authority”, or “shall meet state requirements by submitting a manufacturer HACCP plan.”
Dear Ms. Morris:

Attached please find the American Herbal Products Association document “Cannabis Cultivation and Processing Operations”. This unique document was produced by experienced cultivators, all committed to best practices, who worked with the American Herbal Products Association to formulate the document. The document is set up as a model ordinance and has an index, which makes it easy to use.

Our organization, The Cultivators Alliance is Southern California's largest trade association for medical cannabis cultivators. Our market share is the largest in the country. We have a particular expertise in indoor growing. If the Department of Food and Agriculture anticipates forming any working groups or convening panels of experts to assist them we feel our participation would be key and we would appreciate being included in these efforts. Right now, you're hearing mostly from cultivators in Northern California. For a balanced approach we feel cultivators in Southern California should be included in the conversation.

There is no group with more expertise on indoor cultivation In the state. Our members are all current indoor cultivators who want to see common sense regulation for benefit of State and business equally.

If you have any questions, or would like to begin a dialog, I can be reached at: [REDACTED]

Sincerely,

[REDACTED]

President
The Cultivators Alliance
Recommendations to Regulators:
Cannabis Cultivation and Processing Operations
November 2013

The legal status of products derived from Cannabis spp. is in a transitional phase in many states in the United States. Where products that contain marijuana and its derivatives were formally illegal throughout the U.S., many state laws now allow adult use of these either for medical purposes only or for any social adult use.

The American Herbal Products Association (AHPA) chartered a Cannabis Committee in 2010 with an express purpose to address issues related to the safe use and responsible commerce of legally-marketed products derived from Cannabis species.

To meet its purpose, the AHPA Cannabis Committee is in the process of developing recommendations to regulators for best practice rules to address four operational stages of Cannabis production and distribution: cultivation and processing; manufacturing and related operations; laboratory practice; and dispensing.

The present document provides recommendations to regulators in the specific area of Cannabis Cultivation and Processing Operations, and is presented in the form of a draft regulation. These recommendations are intended to establish a basis for oversight of entities that cultivate cannabis in either outdoor or indoor facilities. The document address such topics as cultivation practices, facility requirements, management of water resources, recordkeeping and information disclosure. It also establishes best practices for operations that provide post-harvest processing of cannabis, for either distribution to dispensing operations, or to manufacturing operations for the production of cannabis-derived products.

The AHPA Cannabis Committee offers this document to states and local municipalities where use of marijuana is allowed under local law such that regulatory authorities can consider the adoption of these recommendations, in whole or in part, as the basis for development of jurisdiction-specific regulations.

Please contact AHPA for further information or to discuss this document further.

Point of contact: Michael McGuffin
P: 301-588-1171 x201 / E: mmcguffin@ahpa.org
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FOR DISCUSSION. Prepared for consideration for submission to state or local regulatory agencies in states within the United States.
PART [X] – Cannabis cultivation and processing operations

SUBPART A – GENERAL PROVISIONS

Section 1.1 Subject operations
(a) Except as provided by paragraph (b) of this section, any person, group of persons, or business entity that cultivates cannabis for retail or wholesale transactions in the jurisdiction in which this part applies is engaged in a cultivation operation, and is subject to this part.
(b) A compliant individual who cultivates cannabis in accordance with local and state law for personal use is not subject to this part.
(c) Except as provided by paragraph (d) of this section, any person, group of persons, or business entity that processes cannabis for retail or wholesale transactions in the jurisdiction in which this part applies is engaged in a processing operation, and is subject to this part.
(d) A compliant individual who processes cannabis in accordance with local and state law for personal use is not subject to this part.
(e) Operations subject to this part are subject only to those sections of this part that directly apply to the operations conducted, such that:
   (1) A cultivation operation is not subject to the processing sections of this part unless processing operations are also conducted by the cultivation operation; and
   (2) A processing operation is not subject to the cultivation sections of this part unless cultivation operations are also conducted by the processing operation.

Section 1.2 Other statutory provisions and regulations
In addition to this part, cultivation operations and processing operations must comply with all other applicable statutory provisions and regulations related to cannabis cultivation and processing in the jurisdiction in which this part applies, and related to all other business activities undertaken in conducting the cultivation operation or processing operation.

Section 1.3 Definitions
The following definitions apply to this part:

Batch means a specific quantity of cannabis harvested during a specified time period from a specified cultivation area.

Cannabis means any of the aerial parts of a plant in the genus Cannabis, and does not mean hemp.

1 This term “in the jurisdiction where this part applies” may be replaced throughout with the name of the specific jurisdiction.

FOR DISCUSSION. Prepared for consideration for submission to state or local regulatory agencies in states within the United States.
Cannabis planting material means cannabis seeds, seedlings, cuttings, clones, etc. used by a cultivation operation to grow cannabis.

Cannabis waste means cannabis discarded by the cultivation operation or processing operation.

Compliant individual means a person who has met all legal requirements to obtain and use cannabis or cannabis-derived products in the jurisdiction where this part applies.

Cultivate means to grow, harvest, dry, and cure cannabis. A person, group of persons, or business entity that cultivates is a cultivator, and a facility where cannabis plants are cultivated is a cultivation operation.

Cultivation area means the physical location of a structure or property at which cannabis is cultivated.

Curing means the process by which cannabis is prepared, preserved, or finished.

Direct-from-garden or caregiver operation means a dispensing operation whereby compliant individuals obtain cannabis or cannabis-derived product directly from a cannabis cultivator.

Dispensing operation means a person, group of persons, or business entity that provides cannabis or cannabis-derived product to compliant individuals and includes delivery services, direct-from-garden operations, growing co-ops, and storefront operations².

Drying means the dehydration of harvested cannabis.

Firewall assembly means a fireproof barrier used to prevent the spread of fire between or through buildings or structures.

Greenhouse means a permanent structure located outdoors that is completely covered by a material that allows a controlled level of light transmission.

Greenhouse cultivation means the cultivation of cannabis inside of a greenhouse utilizing natural sun and possible supplemental artificial lighting.

Harvest means to gather cannabis plants from cultivation medium or to gather specific aerial parts of cannabis plants.

Hemp means any part of a plant in the genus Cannabis, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 (three-tenths) percent on a dry weight basis.

High intensity discharge lamps (HID lamps) means a type of electrical gas-discharge lamp which produces light by means of an electric arc between tungsten electrodes housed inside a translucent or transparent fused quartz or fused alumina arc tube.

² Different jurisdictions may have other terminology for the type of operation that is defined as a dispensing operation in this document.

FOR DISCUSSION. Prepared for consideration for submission to state or local regulatory agencies in states within the United States.
Identity means the set of characteristics by which an ingredient or product is definitively recognizable or known. In the case of cannabis and other botanical ingredients, identity means the plant part and the botanical genus, species, variety, strain, and/or cultivar, as well as other characteristics as applicable.

Indoor cultivation means cultivation of cannabis grown in a fully enclosed location in which the only light source is artificial.

Manufacture means to make or otherwise produce cannabis-derived product. A person, group of persons, or business entity that manufactures is a manufacturer, and a facility where manufacture occurs is a manufacturing operation.

May is used to indicate an action or activity that is permitted.

Medium means the nutritive substrate that the cultivator is using to establish a root system.

Must is used to state a requirement.

Nursery facility means an indoor, greenhouse, or outdoor cultivation operation that produces cannabis plants for the purpose of providing planting material to other cultivation operations.

Outdoor cultivation means cultivation of cannabis out of doors utilizing natural sunlight and possibly supplemental artificial lighting.

Personal use means cannabis that is produced for a compliant individual’s personal medical needs and is not sold or distributed in any manner.

Planting means to place cannabis seeds or young plants in soil or medium.

Process means to trim, inspect, or grade cannabis, or to place cannabis in bulk storage or retail containers. A person, group of persons, or business entity that processes cannabis is a processor, and a facility where cannabis is processed is a processing operation.

Processing loss means cannabis that, for any reason, during processing is deemed unfit for human consumption.

Propagation materials means all substances used in the cultivation of cannabis.

Pruning means cutting away dead or overgrown cannabis leaves, branches or stems.

Should is used to state recommended or advisory procedures.

Supplemental lighting means artificial lighting used to help or extend the vegetative life cycle of a cannabis plant.

Trimming means the removal of leaves and stems from harvested cannabis.

Variety means a specific stock, line, or breed of cannabis, also commonly referred to as strain.

Vendor means a person, group of persons, or business entity that supplies cannabis or cannabis-derived product to storefront or delivery service dispensing

FOR DISCUSSION. Prepared for consideration for submission to state or local regulatory agencies in states within the United States.
operations, and may be either the direct representative of a cultivation or manufacturing operation, or may function independently of such operations by purchasing cannabis or cannabis-derived product from such operations and reselling it to other operations.

**SUBPART B – CULTIVATION AND PROCESSING OPERATIONS**

**Section 2.1 Types of cultivation operations**
(a) Cannabis may be cultivated by any of the following types of cultivation operations, as defined in section 1.3 in this part:
   (1) Indoor cultivation operations;
   (2) Greenhouse cultivation operations;
   (3) Outdoor cultivation operations; and
   (4) Nursery operations.
(b) Cultivation operations may do the following, as allowed by applicable legislation and regulation:
   (1) Produce their own cannabis planting material; and
   (2) Obtain cannabis planting material from any of the following:
       (i) Other cultivation operations;
       (ii) Nursery operations; and
       (iii) Compliant individuals.
(c) Processing operations may obtain cannabis from any of the following, as allowed by applicable legislation and regulation:
   (1) Cultivation operations;
   (2) Compliant individuals, and
   (3) Vendors.
(d) Cultivation operations and processing operations may distribute cannabis to any of the following, as allowed by applicable legislation and regulation:
   (1) Other cultivation operations;
   (2) Other processing operations;
   (3) Dispensing operations;
   (4) Manufacturing operations;
   (5) Vendors; and
   (6) Compliant individuals.

**Section 2.2 Ancillary operations**
(a) Cultivation operations and processing operations may also engage in other operations, including:
   (1) Manufacturing, packaging, labeling, and holding of cannabis-derived product;
   (2) Laboratory operations;
   (3) Dispensing of cannabis and cannabis-derived product; and
   (4) Cultivation and marketing of products other than cannabis.
(b) The ancillary operations identified in section 2.2(a) may be conducted:
(1) At the same location as cultivation or processing, so long as such operations are permitted at this location in the jurisdiction in which this part applies; or
(2) At another location at which such operations are permitted in the jurisdiction in which this part applies.

c) The ancillary operations identified in section 2.2(a) must be conducted in compliance with all regulations relevant to such operations in the jurisdiction in which this part applies.

Section 2.3 Cultivation practices
(a) Propagation materials
   (1) Propagation materials used in cultivation operations must be appropriate for use in food production.
   (2) Cultivation operations must follow the manufacturer’s usage, storage, and disposal recommendations for the propagation material.

(b) Pesticides
   (1) Pesticides used in cultivation operations must be one of the following:
      (i) Subject to a tolerance established for application to cannabis by the US Environmental Protection Agency (EPA);
      (ii) Identified by EPA regulation as exempted from tolerance;
      (iii) Subject to a Section 18 emergency exemption under FIFRA; or
      (iv) Permitted for application to cannabis in other countries as long as the pesticide is also permitted for application to one or more food crops in the United States.
   (2) Cultivation operations must follow the manufacturer’s application and storage recommendations, and disposal recommendations for the pesticide product.
   (3) Cultivation operations must follow the EPA Worker Protection Standard when preparing and applying pesticides.
   (4) Indoor cultivation operations must comply with the pesticide manufacturer’s published re-entry interval time periods when applying pesticides.

(c) Nutrients
   (1) Nutrients used in cultivation operations must be appropriate for use in food production.
   (2) Cultivation operations must follow the manufacturer’s application, storage, and disposal recommendations for the nutrient product.
   (3) Cultivation operations must not return unused rooting hormone to the source container.
   (4) Nitrate-based and other oxidizing fertilizers must be stored away from solvents, fuels and pesticides.

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3 Section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) authorizes EPA to allow an unregistered use of a pesticide for a limited time if EPA determines that an emergency condition exists.
4 The EPA Worker Protection Standard can be accessed at the following website - http://www.epa.gov/agriculture/twor.html (accessed September 9, 2013)

FOR DISCUSSION. Prepared for consideration for submission to state or local regulatory agencies in states within the United States.
(d) Carbon dioxide
   (1) Indoor cultivation facilities utilizing carbon dioxide must maintain levels under 2000 ppm in cultivation areas when facility personnel may be present.
   (2) Indoor cultivation facilities utilizing carbon dioxide at levels above 2000 ppm in a sealed room must prohibit personnel from entering the cultivation area unless personal protective equipment is provided.
   (3) All regulators and environmental control systems that regulate carbon dioxide emissions must be maintained in good working order and be serviced in accordance with the manufacturer’s recommendations.

(e) Equipment and tools
   (1) Equipment used for measuring, regulating, or recording temperatures, pH, humidity, or other conditions related to the cultivation and processing of cannabis must be accurate and adequately maintained.
   (2) Cultivation and processing tools that come in direct contact with cannabis plants should be disinfected as needed to protect plant health.
   (3) Scales used for the weighing of cannabis must be calibrated at regular intervals.

Section 2.4 Processing practices
(a) Processing operations must be maintained in a clean and sanitary condition including all work surfaces and equipment.
(b) Processing operations must implement protocols which prevent processing contamination and mold and mildew growth on cannabis.
(c) Employees handling cannabis in processing operations must utilize facemasks and gloves in good operable condition as applicable to their job function.
(d) Employees must wash hands sufficiently when handling cannabis or use gloves.

Section 2.5 Distribution practices
Cannabis distributed by cultivation operations and processing operations must be accompanied by the following information:
   (1) Cultivation or processing operation’s name;
   (2) Identity of contents;
   (3) Net weight of contents; and
   (4) Sufficient information to trace the cannabis to its batch.

SUBPART C – PERSONNEL

Section 3.1 Personnel training
(a) Cultivation and processing operations must:
(1) Ensure that each person engaged in the operation has the education, training, and experience, or any combination thereof, to enable that person to perform all assigned functions.
(2) Maintain records of any training provided to employees for the performance of all assigned functions.

(b) Cultivation and processing operations should provide all employees with training that includes:
   (1) Instructions regarding regulatory inspection preparedness and law-enforcement interactions; and
   (2) Information on U.S. federal laws, regulations, and policies relating to individuals employed in these operations, and the implications of these for such employees.

(c) Cultivation and processing operations must implement employee hygiene protocols and training, which at a minimum address:
   (1) Policies which prohibit employees who are showing signs of illness, open wounds, sores or skin infections from handling cannabis.
   (2) Hygiene training for employees who handle cannabis with specific attention to preventing microbial contamination.
   (3) Hand washing requirements including washing hands with soap and hot water before beginning work, after using the bathroom and after meal breaks.
   (4) Instructive hand washing signage must be in appropriate areas such as bathrooms, kitchens, and lunch areas, and in multiple languages as needed.

Section 3.2 Employee safety
(a) Cultivation operations and processing operations must implement safety protocols and provide all employees with adequate safety training relevant to their specific job functions, which may include:
   (1) Emergency action response planning as necessary;
   (2) Employee accident reporting and investigation policies;
   (3) Fire prevention;
   (4) Hazard communication policies, including maintenance of material safety data sheets (MSDS);
   (5) Materials handling, spill, and disposal policies;
   (6) Job hazard analyses; and
   (7) Personal protective equipment policies, including respiratory protection.

(b) Cultivation operations must provide and maintain at least one emergency eye flushing station readily accessible to all employees and access to adequate eye flushing water for each employee working in field operations.
(c) Cultivation operations and processing operations must visibly post and maintain an emergency contact list which includes at a minimum:
   (1) Operation manager contacts;
   (2) Emergency responder contacts;
   (3) Poison control contacts;
(4) Fire department contacts; and
(5) Spill response team contacts.

**SUBPART D – FACILITIES**

**Section 4.1 General compliance**

(a) Cultivation operations must comply with all legal requirements pertaining to the following as applicable:

1. Restrictions on the size of the cultivation area;
2. Restrictions on the number of cannabis plants allowed or other quantitative limits; and
3. Light pollution restrictions.

(b) Location of cultivation operations:

1. Indoor cultivation operations may be located on any property that is zoned for such use and must be located in a fully permitted, non-residential structure that:
   i. Was constructed in compliance with local building code;
   ii. Has a complete roof enclosure supported by connecting walls extending from the ground to the roof;
   iii. Is secure against unauthorized entry; and
   iv. Minimizes unnecessary visual, auditory or olfactory evidence of indoor cannabis cultivation.
2. Outdoor cultivation operations and greenhouse cultivation operations may be located on any property that is zoned for such use.
3. Outdoor cultivation operations and greenhouse operations must be located within any setbacks that pertain to the property where the cultivation is taking place.
4. Greenhouse cultivation structures must be fully permitted and built to code at the time of construction.

(c) Location of processing operations

1. Processing operations may be located on any property that is zoned for such use.
2. Processing operations must be located within any setbacks that pertain to the property where the processing is taking place.
3. Processing operation structures must be fully permitted and constructed in compliance with local building code.

(d) Outdoor cultivation or greenhouse cultivation operations must shield or downcast supplemental lighting.

(e) Cultivation operations and processing operations that transport cannabis must do so in a secured enclosed container or secured trunk of the delivery vehicle.
Section 4.2 Fire prevention
(a) Any room in an indoor cultivation operation in which operational supplemental lighting, ballasts, or electrical control panels are located must be constructed with a minimum of a one-hour firewall assembly.
(b) Indoor cultivation operations must:
   (1) Provide at least one operating fire extinguisher, and
   (2) Provide additional fire extinguishers in a number proportional to the watts of supplemental lighting used in the facility (one fire extinguisher per every 10,000 watts of lighting), or in accordance with local fire code.
(c) Fire extinguishers must be:
   (1) Easily accessible to employees from every room and in each hallway of the facility;
   (2) Maintained annually or as otherwise specified by the manufacturer; and
   (3) Of the appropriate class rating for the type of fire associated with the functions being performed in the facility (i.e., electrical, chemical).
(d) Flammable products must be stored in a properly marked fire containment cabinet or area.
(e) Signage that complies with National Fire Protection Association (NFPA) standard 704 must be placed at entrances to exposure areas.

Section 4.3 Sanitation practices
(a) Cultivation operations and processing operations must provide employees with adequate and readily-accessible toilet facilities.
   (1) Toilet facilities must be maintained in a sanitary condition;
   (2) Toilet facilities must be adequately stocked with toilet paper, soap, and single use paper towels or other drying devices; and
   (3) Toilet facilities must be kept in good repair at all times.
(b) Cultivation operations and processing operations must provide adequate and convenient hand-washing stations.
   (1) Hand washing stations must be provided with running water of suitable temperature;
   (2) Hand washing stations must be provided with effective hand cleaning or sanitizing preparations and single use paper towels or other drying devices;
   (3) Hand washing stations must be located at points in the facility where good sanitary practices require employees to wash or sanitize their hands; and
   (4) Outdoor and greenhouse cultivation operations must provide hand-washing stations at field locations as appropriate.
(c) Cultivation operations and processing operations must implement sanitation practices, which at a minimum address:
   (1) Removal of debris, and control of the growth of mold, mildew and algae in the cultivation area or processing area;
   (2) Pest control practices, including maintenance and repair of caulk cracks and drain areas;
(3) Identification of hoses dedicated for use in cultivation; and
(4) Maintenance and cleaning of irrigation systems.
(d) Processing operations must protect cannabis from contact with birds, rodents, insects, and other animals and from exposure to the elements.

Section 4.4 Electrical system
(a) The cultivation operation’s electrical system must be of sufficient capacity to handle the actual electrical load and be installed in accordance with an approved electrical permit.
(b) All electrical work and upgrades at cultivation operations must be performed with proper permitting.
(c) All electrical equipment used by a cannabis cultivation operation should be connected to the electrical system in accordance with the equipment manufacturer’s recommendations.

Section 4.5 Ventilation system
(a) Enclosed cultivation operations and processing operations must be equipped with adequate ventilation to maintain proper humidity and temperature.
(b) For indoor cultivation operations:
   (1) If a mechanically propelled air intake system is used, a filter capable of removing 99.97% of particles with a diameter of 0.3 micrometers (µm) must also be utilized, as necessary to control potential contamination with pathogenic organisms.
   (2) If a non-mechanically propelled or passive intake system is being utilized, a grate and filter sufficient to reduce the intrusion of rodents and insects must be installed.

Section 4.6 Disposal and waste practices
(a) Cannabis waste must be disposed of in a manner which prevents unauthorized use and such disposal must be documented.
(b) Bulbs and ballasts utilized during the cultivation of cannabis must be disposed of in accordance with manufacturer’s recommendations.

Section 4.7 Security provisions
(a) Outdoor and greenhouse cultivation operations should be enclosed by a secure perimeter fence at least six (6) feet in height. The fence should include a lockable gate that is locked when a qualified employee is not in the immediate area. The fence must not violate any other ordinance, code section or provision of law regarding height and location restrictions.
(b) Indoor cultivation facilities and processing facilities must have locking doors and windows which allow emergency ingress and egress in accordance with applicable regulations.
(c) Cultivation operations and processing operations must implement and communicate security protocols to all personnel.
(d) Visitors must be accompanied by an employee at all times.
SUBPART E – WATER RESOURCE MANAGEMENT

Section 5.1 Cultivation water management
(a) In the absence of local or state water district regulations for cannabis production, cultivation operations must create and implement a cultivation water management plan to address the following:
   (1) Erosion prevention; and
   (2) Effluent and agricultural discharges.
(b) Chemical solutions must be disposed of in accordance with applicable laws and regulations.
(c) Application of nutrients or pesticides through an irrigation system (chemigation), must be performed in accordance with state or local agricultural regulations.

Section 5.2 Potable water for employee use
(a) Cultivation operations not utilizing a municipal source of potable water must test the potable water supply at least two times per year to ensure compliance with state primary drinking water standards.
(b) Chemicals, fertilizers, pesticides, media and other products must be stored away from the potable water supply.

SUBPART F – RECORDKEEPING

Section 6 Recordkeeping practices
(a) Cultivation operations must record the identity and source of all cannabis propagation material with sufficient specificity to ensure that the material can be traced to its source. Such records must be created whether the propagation material is obtained off-site or produced on-site.
(b) For each batch of cannabis, cultivation operations must maintain cultivation records that include at a minimum:
   (1) Planting records:
      (i) Form of cannabis planted (e.g., seed, clone, seedlings, etc.);
      (ii) Date(s) that planting took place;
      (iii) Variety(ies) planted;
      (iv) Size of the cultivation area; and
      (v) Location of the cultivation area.
   (2) Propagation records:
      (i) Media used, and whether the media was reused or new product;
      (ii) Description of all actions taken to prevent or treat the cannabis for disease or pest issues;
      (iii) Soil amendments added, and strength of the application;
      (iv) Nutrients added, and strength of the application;
      (v) All substances applied to the plant(s) surface or used as a fumigant in the cultivation and/or nursery area, and
      (vi) Pruning or other physical technique(s).
(3) Pesticide use records:
   (i) Pesticide chemical name;
   (ii) Brand name and manufacturer name;
   (iii) Amount of pesticide applied;
   (iv) Date pesticide applied;
   (v) Identification or location of plants to which pesticide was applied; and
   (vi) Name of applicator if required.

(4) Harvest records:
   (i) Identity of each variety harvested;
   (ii) Date of harvest;
   (iii) Gross weight of the cannabis harvested for processing (generally recorded after drying);
   (iv) Total weight of cannabis waste resulting from the harvest, and
   (v) Net weight of harvested cannabis (gross weight less waste).

(c) Processing operations must maintain records for processed cannabis that include at a minimum:
   (1) Identity of the variety processed;
   (2) Sufficient information to trace the processed cannabis to its cultivation source;
   (3) Date of processing;
   (4) Initial weight; and
   (5) Total weight of any processing loss (based on wet or dry weight).

(d) Cultivation operations and processing operations must maintain records of the commercial sale of cannabis to other cultivation and processing operations, to manufacturing operations, and to dispensing operations that include at a minimum:
   (1) Identity of the variety distributed;
   (2) Total weight of each variety distributed;
   (3) Date of distribution; and
   (4) Identity of the receiving operation.

(e) Cultivation operations and processing operations are not required to retain records of cannabis distributed for the following purposes:
   (1) Samples provided for testing;
   (2) Samples provided to other operations at no charge; and
   (3) Samples provided to compliant individuals at no charge.

SUBPART G – INFORMATION DISCLOSURE

Section 7 Information disclosure
(a) Cultivation operations must provide the following records to other cultivation operations, processing operations, manufacturing operations, and dispensing operations receiving cannabis from the cultivation operation, upon the receiving operation’s request:
   (1) Nutrients used during cultivation;

FOR DISCUSSION. Prepared for consideration for submission to state or local regulatory agencies in states within the United States.
(2) All substances applied to the plant(s) surface or used as a fumigant in the cultivation area;
(3) Pesticides applied during cultivation; and
(4) Other substances used during cultivation that may result in a residue on cannabis.

(b) Information provided by a cultivation operation, whether written or verbal, about the identity, quality, and cultivation conditions of cannabis it provides must be accurate.

(c) Cultivation operations and processing operations must disclose the extent and type of testing and analysis conducted on the cannabis it provides, including:
   (1) The type of test, analysis or examination used, if any, to determine the particular strain or cultivar of each batch of cannabis provided;
   (2) Any tests to determine the quantitative levels of contained constituents, and if so, the type of testing used;
   (3) Any tests to determine the absence or presence of specific classes of potential contaminants, and if so, the type of testing used. The information required by this paragraph must be disclosed for each of the following:
      (i) Pesticides;
      (ii) Yeasts and molds; and
      (iii) Other microbiological contaminants.
   (4) Whether the testing was conducted by the cultivation or processing operation, or by an external laboratory.

**SUBPART H – RECALLS**

**Section 8 Recall plan**

(a) Each cultivation operation and processing operation must develop and implement a recall plan addressing at a minimum:
   (1) Factors which necessitate a recall procedure;
   (2) Personnel responsible for a recall; and
   (3) Notification protocols.

(b) Each cultivation operation and processing operation must establish a policy for communicating a recall of cannabis that has been shown to present a reasonable or a remote probability that the use of or exposure to the product will cause serious adverse health consequences, or could cause temporary or medically reversible adverse health consequences. This policy should include:
   (1) A mechanism to contact all customers who have, or could have, obtained the cannabis from the cultivation operation or processing operation;
   (2) Information on the return or destruction of any recalled product;
   (3) A mechanism to contact the cultivation operation; and
(4) Communication and outreach via media, as necessary and appropriate.
(c) Any recalled cannabis that is returned to a cultivation operation or processing operation must be disposed of in a manner that ensures that it cannot be salvaged and will not be used by a compliant individual or by any other person.
Hi Amber,

This letter is in response to your notice requesting comments before September 30, 2016 on the Medical Cannabis Cultivation Program to be filed in the record for both the Programmatic Environmental Impact Report and Regulations. Please add my name to the project mailing list. (See address and email below). This PEIR and the regulations need to be a very extensive and comprehensive study of the impact of the entire cannabis industry on our entire state. It should be a model for the subsequent EIR's that should be required for each and every cannabis operation. Each site will have different and specific environmental impacts that will need to be studied and mitigated. These sites should include but not be limited to cultivation, manufacturing, distribution, transportation, laboratory testing and dispensing. Both direct and indirect effects need to be studied including off-site, cumulative, construction and operational impacts.

We live in Calaveras county with an estimated 2,000 grow sites. We are experiencing first hand the impact of the cannabis industry.

Please see my attached comments.
Please send me an email reply indicating that you have received this email and comments including the attachment. Thank you.

Thank you for your service to our state.

P.S. Some additional comments:

Please consult also with Calaveras County Sheriff Rick DiBasilio on effects on human safety.

Please study the effects of cannabis diversion to the health, safety and education of children and youth.

Please study the danger to neighbors, citizens and law enforcement officers by firearm and weapon-toting cannabis operatives. Please note that 8 of 11 active homicides in Calaveras county are cannabis related.
Please study the impact of many transients on social services during the growing and harvest season.
Environmental Factors Affected

Aesthetics

Many county residents have expressed to the Supervisors, Planning Dept. and Commissioners, Sheriff, Code Compliance and others the substantial damage and adverse effects of MJ operations on their scenic vistas and resources including trees and rock outcroppings (e.g. grading the tops off of hills and property and road damage). These have degraded the visual character and quality of the sites and surroundings. MJ operations also create light that adversely affect day and nighttime views. The impacts of future cultivation, manufacturing, distribution, transportation, testing and dispensary sites should be studied.

Agricultural and Forest Resources

Study the impacts of MJ operations on forest resources including timberland. Study loss of forest land and conversion of forest land to non-forest use. Study other changes in the existing environment caused by MJ operations that result in the above loss and conversion. Study the impacts on adjacent agricultural production areas including crops and livestock by the use of toxic chemicals (e.g. neonicatoids effect on bee mortality with resultant decreased pollination). Study any conflicts with existing zoning for agricultural use or a Williamson Act contract.

Air Quality

Many county residents have complained to many departments about the objectionable odors of MJ cultivation. These odors are noxious causing allergic reactions, bronchial and lung
diseases. MJ production exposes sensitive receptors to pollutant concentrations (e.g. children, elderly and individuals with compromised respiratory or immune systems) and many others by inhalation use.

Perform an Analysis of Air Quality Impacts because of construction and occupancy impacts including traffic impacts. Study possible violations of air quality plans or standards. Study compliance with CCAPCD’s standards of dust control and diesel generators, etc.

Biological Resources

Study the adverse effects of MJ production either directly or through habitat modification on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies or regulations or by the CA Dept. of Fish and Game or The US Fish and Wildlife Service. Study the effects on Swainson’s Hawks, Bald Eagles, CA Red-legged Frogs, CA Tiger Salamanders, Western Spadefoot Toads and Vernal Pool Fairy Shrimp.

Study the effects of illegal and unapproved chemicals on these species and other species. These chemicals include pesticides, fungicides, miticides, rodenticides, plant growth regulators and soil amendments.

Study the effects of improper disposal of garbage and trash, by consulting with the Sheriff Dept.

Perform a wetland determination report on all areas.

Retain a qualified biologist to perform site assessments.

Study effects on bird species for foraging and nesting.
Study effects on sensitive natural communities or riparian habitat.

Study effects on habitat by frequent hydrological interruptions that have been complained about by many residents.

Study the effects of large amounts of water siphoned from watersheds impacting migratory fish and wildlife.

Study the displacement of wildlife due to MJ operations. Study the use of Carbofuran to kill bears, foxes and other native wildlife and the use of rodenticides that are killing fishers (weasel family). Consult with Dr. Mourad Gabriel of the Integral Ecology research Center of UC Davis.

Study the threat of death, injury and adverse effects from attack dogs kept on MJ sites.

Study conflicts with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance.

Cultural Resources

Conduct a cultural resources survey. Study any adverse changes in the significance of a historical or archeological resource.

Study the disturbance of any human remains.

Consult with Native Americans about burial ground sites. Calaveras=skulls. Findings are highly likely.

Geology and Soils
Study the substantial erosion and loss of topsoil occurring at MJ sites.

Perform a Geotechnical Services report

Study the areas of expansive soils of all sites.

Study all sites for unstable soils.

Study all sites for soils that are incapable of supporting the use of septic tanks or alternative waste disposal systems.

Greenhouse Gas Emissions

Study the very significant generation of GHG’s from MJ operations that directly and indirectly have a significant impact on the environment.

Study the conflicts of MJ operations with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of GG’s.

Report on the carbon footprint of MJ operations.

Hazards and Hazardous Materials

Study the hazard to the public and environment by the use, transport and disposal of unapproved and illegal chemicals.

Study the improper disposal of human feces on MJ sites reported in complaints from neighbors and the Sheriff. Study the resultant E. coli contamination.
Study sites that are located on a hazardous material site including from the Butte Fire or located within 2 miles of an airport or private airstrip.

Study reports of damaged and blocked roads by neighbors that interfere with emergency vehicle access or evacuation.

Study the exposure of people or structures to loss, injury or death from wildland fires where residences are intermixed with wildlands. Experts predict this occurrence.

Hydrology and Water Quality

Study violations of water quality standards or waste discharge requirements.

Study groundwater supply depletion which have resulted in adjacent wells drying up as complained by many people.

Study the altered drainage pattern of sites including damming and diversion siphoning large amounts of water from watershed.

Study substantial degradation of water quality by use of illegal and unapproved chemicals.(e.g. synthetic pyerithrins, carbarylks, organophosphates, DDT, Carbofuran). Study effect of massive use of fertilizers causing nitrate, phosphate and phosphide contamination. Study diesel fuel and human waste contamination including E.Coli and Giardia. Study the effects of these pollutants and lower than normal stream flow due to diversions causing toxic blue-green algae blooms in streams.

Land Use and Planning
Study the physical division of established communities by MJ operations disrupting residential and agricultural communities. Interview the Diamond Twenty community in Copperopolis.

Study any conflicts with land use plans and policies or regulations.

Mineral Resources
Study any adverse effects in Mineral Resource Areas.

Noise
Study exposure of people to excess noise of groundborne vibrations or noise.
Study noise levels due to grading, construction or operations (e.g. diesel generators, water trucks)

Population and Housing
Study substantial growth in an area and influx of people nationally and internationally to cultivate causing a real estate boom.
Study influx of criminal gangs and drug cartels. Consult with Sheriff.
Study reported substandard living structures.

Public Services
Study impact of MJ operations on County Depts. Study need for increased staff with Sheriff, District Attorney, Planning, Agriculture, Public Health, Code Enforcement, etc. etc. etc.

Recreation
Study effects of armed guards and attack dogs on hiking, fishing and swimming areas. Interview Diamond Twenty residents in Copperopolis who have complained mightily about this.

Transportation and Traffic
Perform a Traffic Impact Analysis and study the reported road damage and blockages from MJ operations.
Study the many substandard roads serving cultivation and transportation areas and future manufacturing, testing and distribution areas which result in hazards and congestion.
Study inadequate emergency access.
Study adverse effects on circulation system and conflicts with plans, ordinances or policies.

Utilities and Service Systems
Study MJ operations exceeding wastewater treatment restrictions with toxic chemicals and fertilizers. Study violations of Clean Water Act.
Study possible necessity of expansion of water treatment facilities.
Study the high water use of MJ operations especially in severe drought years.

Study the lack of energy conservation by MJ operations.

Study violations of solid waste regulations by excessive garbage and waste.

Mandatory findings of Significance

Study the potential to degrade the quality of our environment and reduce the habitat of fish and wildlife and their populations.

Study the impacts that are individually limited but cumulatively considerable.

Study the many environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

Consult with Sheriff Capt. Jim Macedo on effects on human safety.

Consult with District Attorney Barbara Yook on effects on human safety.

Consult with the CA Highway Patrol with effects on human safety.

Consult with Kathryn Eustis in Calaveras county Education Dept. with effects on students.

Consult with Cal/OSHA on workplace safety of human beings.
In conclusion, I expect that each of these environmental impacts will be thoroughly investigated and included in the EIR and made available to the public.
Attached please find a letter addressing the Pre-Regulatory Goals outlined in the survey.
California Department of Food & Agriculture  
Medical Cannabis Cultivation Program  
Attention: Amber Morris  
Medical Cannabis Cultivation Comments  
1220 N. Street, Suite 400  
Sacramento, CA 95814  

Ms. Morris and the entire MCCP staff:  

First, let me reiterate in writing what I told you in person in Eureka and in Sacramento (at the CA thing last January): I am so impressed and pleased with the approach you all are taking and the efforts you have made to receive practical information. It would have been helpful to know in advance that the pre-regulatory informational meetings you were having (such as the one I went to in Eureka) would be structured in the manner that they were with informal stations and mostly no answers but requests from staff to provide your office with suggestions. While I applaud the openness and attempt at inclusiveness being the informal structure, I think that I and quite a few other people I spoke to who attended some or all of those meetings would have been more prepared to provide that feedback had we understood the format. The BMCR pre-regulatory meetings were conducted as workshops to the surveys and that was very helpful. Again, I appreciate the welcoming attitude that most staff\(^1\), but in the future, it would be helpful to know what the format might be so we can be more prepared.  

Before I speak to the specific issues asked about, I would like to address a critically important issue that came up during my participation at the BMCR meetings: Proof of prior activity (prior to January 1, 2016. In our jurisdiction, Mendocino County, the local Sheriff and District Attorney BOTH took the position that even with properly permitted cultivation sites this year, “commercial cannabis activity” was still illegal. Also, the D.A. prosecuted people for anything prior to last year if it was more than 25 plant per parcel. As a result, most people were NOT interested in keeping records that demonstrated activity prior to 1/1/16, and more specifically, “commercial cannabis activity” prior to 1/1/16. There is a 3 year statute of limitations for state crimes that the D.A. can prosecute. I am very concerned about the level of proof that will be required to prove prior cultivation or prior other cannabis activity when the Sheriff and D.A. have taken such position. I have a suggestion. Please accept the following  

\(^1\) I had a person contact me to say that a gentleman staff member at the Eureka event scared the heck out of them. According to this person, that staff member said “Apparently, I am here to help you get away with something that is illegal.” Since I did not overhear that comment, I cannot speak to it, but I encouraged the person reporting it to me to inform you directly. I mention it because even if it was intended as a joke (which the person who reported it to me said that by the sneering tone, it absolutely did not seem that way), it scared off the person who reported it to me and the five other people they were attending the meeting to report back to about the safety of participation. I thought you might want to know about this being reported to me, but understanding that I do not claim to know exactly what happened but hear about the impressions it left.
alternative forms of proving prior to 1/1/16 activity for purposes of priority processing of applications:
1. A statement of good standing from the local permitting agency (those that are in the permit program this year more or less will have proved prior cultivation to the Sheriff’s program in charge of this year’s permit program and it is my understanding that the local Ag department will accept those for their priority processing). 2. For those who are not in this year’s program or somehow did not establish in the context of that program the prior cultivation, please allow a sworn declaration under penalty of perjury together with one other document (a receipt for supplies, a receipt from a dispensary, a collective agreement, etc. This issue actually is also important to those that are in jurisdictions where there is no local permit but there is no ban. They should be also allowed to provide an alternative. It is critically important that these issues be considered together with the other state agencies regarding the other permit types. Again, how is someone who was told by the Sheriff that even if they have a local permit, “commercial cannabis activity” is still illegal this year supposed to show they had prior commercial cannabis activity (the suggested term that BMCR is thinking of for proving prior to 1/1/16 activity for purposes of priority processing of applications. This is a separate issue than in good standing with local jurisdictions, though there are concerns with that as well. I believe that if a local jurisdiction does not have a ban and there is no one in the local jurisdiction that will sign anything regarding good standing, that the applicant should be able to submit a sworn declaration that they have not violated any local regulations.

Onto the substance of my comments regarding the Goals:

I am skipping Goal #1 because I am an attorney representing clients and I do not have as much technical information on this topic as they do. I have asked a large email group to please respond to the survey and today reminded them of the deadline.

Goal #2:

1. **Online Applications:**
   a. Internet access is often difficult for rural cultivators. Some have dial-up, some have no internet. Winter storms often knock out satellite connections. With that said, I understand the administrative burden that written/mailed in application might place on the agency. Perhaps Cottage Cultivators (more likely to be rural without affording expensive internet via satellite) could be given the option of submitting applications in the mail? Or, perhaps you can charge an extra fee for those who submit via mail (or in person), but bearing in mind to not penalize rural small farmers who are being gauged at the same rate as city folks for whom most of these issues are not a big deal or as expensive)?
   b. Limitations of Online forms: Please, if you do an online form, please, please, please, understand that so many instances pull down menus and clicking choices do not present an easy method if there is no way to input additional explanations or information. A good example is the online process for Sellers Permits. If a non-statutory collective chooses association or organization as its (proper) type of entity in the process, a message pops up stating they must submit Articles of Incorporation (which are not required for such an entity). If they choose Unincorporated Association, a message pops up asking for Trust documents (again, not appropriate for that kind of entity. The result is people are doing it wrong! SO, please, if you are designing an online application, make sure it is done properly and that there is ALWAYS a way to give an explanation so the application is not accidentally improperly rejected or mischaracterized.

2. **Firearms:** Rural cultivators must contend with wild animals and often keep guns for that reason. Please just make sensible guidelines for safety.

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**Personal & Business Consulting & Legal Services**
**Real Estate, Partnerships, Estate Planning, Small Business**
3. **How Many Applications:** I am in Mendocino County where I have about 40-45 permit holders (out of I think 340) on the local level. I have another 5 people who are definitely preparing for next year’s local program. I expect once the local permitting is more definite, there will be a lot more people. This year the permitting program was cut off way before the deadline with only 24 hours notice (because of a threatened lawsuit). Additionally, this year, the ordinance was an Urgency Ordinance only for this year. We have an unsettled situation. I believe that if the situation settles into a known set of ordinances, there will be a dramatic increase from this year.

**GOAL #3**

1. **Ability to turn trim into something:** It is extremely important that one way or the other the small farmer (not just Cottage, but Small) be able to easily keep their trim and turn it into something. I think that non-volatile processes should not require a separate manufacturing license for trim from licensed cultivation. If small cultivators are not allowed to use the whole plant (so to speak), the economics of what they do changes significantly and then the rest of the fees must be adjusted accordingly. Also, if they are not allowed to turn leaf into something else, then what do they do with the shake and trim? If they cannot economically find a market for it then they must dispose of it? I think as a practical matter, it would encourage illegal diversion if they had to destroy it.

2. **Vertical Integration Issues:** I have a lot of clients who are now loooing at 10A just so they can afford to operate. By inserting the distributor for cultivators and manufacturers without a cap on the fees, it will price small farmers and small manufacturers out of the business unless they go for a 10A and do it all. The real issue is COST of non-vertical integration. Between license fees (local and state), separate licenses for separate activities if turning leaf and shake into other things is not allowed under a cultivation license, the water board and other agency fees, compliance costs, testing costs, packaging and labeling costs, employment costs (workman’s comp etc.), local taxes, and state taxes, all of which are understandable for any business, the distribution costs could add a level of cost that is the difference between ability to participate or not. Please allow some sort of low level processing leaf and shake into something else without a separate license and please do not require a separate license for that for small cultivators. Please also work with BMCR to put a reasonable cap on Distribution fees. If something is not actively done to keep small cultivators in the marketplace, they will not be able to participate and all of the other supposed protections for small long time farmers will be irrelevant.

3. **Artificial Light:** Please check with Mendocino County Ag Commissioner, Chuck Morse who has received independent information on these issues which resulted in his changing his initial recommendations regarding these issues.

4. **Level The Playing Field For Small Farmers & 10A Licenses:** As stated above, if active steps are not taken to level the playing field for small farmers, they will disappear and many rural communities will be changed forever. One way to take an active step is to have preferential treatment or special price breaks for small cultivators who want to obtain a 10A license.

**GOAL #4**

1. **Environmental Impact Compliance:** Most permitted cultivators are very compliant and very conscientious. Already they must adhere to State Water Board, F&W, and other agency regulations. Often cultivators are already very conscious of water conservation because of drought and concern for water sheds. Use of target watering through drip irrigation and use of timers is common. Sometimes, there is no way to recycle water because of the targeted use or it recycles into the water table and is reused through ponds and wells. Some people have rain catchment systems.

2. **Security:** There is a local requirement of secure fencing with lockable gates. Some people use cameras and/or security alarms. Almost everyone is behind 1-3 locked gates (besides the fenced area. Most people are security conscious and organize themselves accordingly.

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3. **Whole/Retail/Propagation:** Most but not all of my clients exchange the medicine for money with dispensaries. (wholesale). About ¾ of them do their own propagation either from clones or seed and are very proud of their strains. Many are very detailed in their research and development.

**GOAL #5**

1. **Inspections:** It’s ALWAYS safe for inspections! I do not understand the fear. Usually advanced notice is sensible to ensure the person is there and available to address any concerns, to ensure dogs or other pets are inside or tied up, and so that they can plan for any workflow interruption.

2. **Records:** Everyone is just starting to turn the tide to record keeping. The local permitting program has begun and people are just now trying to reverse a lifetime of throwing out records and not keeping records. As I mention in a later section, understanding that continual efforts and attempts to honestly comply will be accepted and that grace periods for technical violations or imperfect recordkeeping immediately will be important. I give each of my clients a compliance binder and I am pretty stringent on ensuring they keep records. However, it is definitely a process and it will take a while before there is 100% accuracy and 100% compliance. Please build that into your rules.

**GOAL #6**

**Track and Trace:** Please take into account the need to track in batches of small plant for greenhouses and indoor operations that plant in beds (as opposed to pots or in the ground). Please also take into account the fact that one plant (potted or in the ground) could have 1-4 cuttings (separate times they are cut for drying) during harvest. I am told that even some indoor and light dep situations do multiple cuttings.

**GOAL #7**

PLEASE allow grace periods. All of this is NEW to people and they are grappling with many different requirements from different local and state agencies.

PLEASE allow for corrective actions without serious penalties (maybe small administrative fee if absolutely necessary to follow-up).

PLEASE make sure NOTICE period is sufficient to respond and that the notice runs from the time of receipt of it or adds a significant period of time for rural mail conditions and that takes into account that some rural residents do not get their mail at the Post Office in town but once a week.

I believe that a reasonably quick resolution is important to all parties. However, perhaps a different time period could be attached to different violations? So, for more serious potential violations, a more immediate initial response should be required to protect public health and safety but a more lengthy time to prepare for a hearing would be appropriate. Whereas for a minor potential violation, perhaps a longer time to respond initially (if no health and safety issues are at risk) but a quicker turn around time for a hearing?

Please also consider a scaling for 1st versus 2nd versus 3rd offense. Steps in seriousness and grace periods and periods of time to implement corrections, especially in the first few years of implementation of the regulations should be worked into the scheme.

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I believe that less serious violations would be administrative, paperwork type violations, violations where there was a genuine confusion over differing requirements from different agencies, and 1st offenses that do not involve public safety and health. More serious violations would include those that present a clear and present danger to the public or employees, actual diversion, actual environmental hazards.

I suggest that the department look at how Cal OSHA sets up their regulations. Given that they want employers to comply, they are careful to provide helpful opportunities to assist with compliance and afford opportunities to come into compliance before penalties are assessed. The hearing procedures are fair and the process is geared towards bringing people into compliance rather than penalizing after the fact, though appropriate penalties are set forth, especially for violations that truly cause a hazard.

Thank you for providing the opportunity to give input. I would welcome meeting or speaking by telephone for follow-up if that is helpful. If any stakeholder meetings or sessions are conducted during the writing of the regulations, I would appreciate being invited to participate. I have been dealing with cannabis policy for nearly 30 years and was one of the persons who drafted the first regulatory scheme here in Mendocino County many years ago. My practice largely focuses on cannabis compliance right now but I also advice non-cannabis small businesses, have engaged in a lot of non-cannabis regulatory work (real property and land use, environmental, special event permitting, state and federal compliance for workforce development funds, and many other categories of regulatory work).

Sincerely,

[Name]
Hello:

Please find the attached comments. We look forward to continued dialogue.

Respectfully,

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September 30, 2016

Department of Food and Agriculture
Medical Cannabis Cultivation Program
1220 N Street, Suite 400 Sacramento, CA 95814

RE: Preliminary comments on the Pre-Regulation Workshop Survey

We appreciate the Department of Food and Agriculture’s Medical Cannabis Cultivation Program providing the opportunity for robust public participation in the rulemaking process. While the public process is a statutory requirement, program staff have gone above and beyond and lived up to these principles of participatory governance by providing an engaging and user friendly process for the regulated community and other stakeholders. We commend this collaborative approach and encourage the program to sustain its commitment to public participation.

Today I write to provide our basic principles, our accomplishments and compromises to date and an initial overview of our regulatory priorities. I will also include discussion of the Regulatory Goals outlined in the “Pre-Regulation Workshop Survey.”

**BASIC PRINCIPLES**

**CANNABIS CULTIVATION IS AGRICULTURAL. WE ARE FARMERS. NOT CRIMINALS.**

Our organization is built on the fundamental truth that—to this day—commercial cannabis cultivation remains a crime in California. Our members have been forced to operate with limited to no access to the regulated marketplace.

For those that did find shelf space, businesses operated at cost with no allowance for profit. Growers have been completely dependent on retailers for market access, making them very vulnerable to abusive practices. This reality is reflected in the price and value trends: over the last decade average price to the producer has plummeted from around $3000 a pound to $1500, or less. The price to the consumer has remained the same with retailers leveraging regulatory advantage and a severely limited marketplace to leverage more advantageous pricing and marketing agreements. In order to offset plummeting prices operators would often increase supply as there was no other strategy to offset these losses.

Within this context, communities where cannabis cultivation is prevalent have seen increased impacts from unregulated cultivation.
It is within this context that our organization has organized. Over the last two years we have asserted the grower’s perspective for the first time in our states history—and the statute reflects our basic priorities:

- The legislation builds on a multi-agency framework. Cultivation is regulated by agriculture with the CDFA taking the lead on rulemaking and licensure.
- The act establishes tiered-licenses to ensure regulations and fees are correlated to the scale of the operation and license types.

The bottom line, from our perspective: there is nothing inherently criminal about growing cannabis.

THE CANNABIS MARKETPLACE IS A UNIQUE OPPORTUNITY FOR CALIFORNIA

California is a global leader in cannabis—generating significant revenue and jobs every year. Unique to other crops, cannabis is grown almost exclusively on a small scale. There is a cultural and economic value that our communities derive from small, local farms that simply cannot be derived from any other source. Small local farms, using best management practices are a key component of the resilient and diversified marketplace that will help California adapt to changing climate and shifting values. Cannabis is a critical crop to the economic viability of these small farms. The Medical Cannabis Regulatory and Safety Act reflects this basic principle in a few ways:

- Limitations on the cumulative area each licensee may cultivate rather than the number of cultivation licenses that will be issued
- Market segmentation, preventing conglomerates that from dominating the entire supply chain and ensuring cultivation remains an independent segment of the marketplace

CALIFORNIA IS THE GLOBAL LEADER IN CANNABIS—NO OTHER STATE IS COMPARABLE

For decades California has been the leading producer in the world in the cannabis industry. Our growers have supplied much of the nation under the byzantine and failed system of prohibition. We are also home to several of the worlds most mature and developed consumer markets. Our state truly is the global leader in this industry.

The unique nature of our marketplace—from seed to sale, and beyond—makes comparative analysis a tool of limited utility. Often times policy makers will look to other jurisdictions for guidance on answering questions. In this case Washington and Colorado are primary examples of states that are perceived to be “leading” the way. However, these states provide few lessons of value.

When it comes to cannabis policy, California should continue be a leader—not a follower, for several reasons:

- Our statue is very different than other states. Our regulatory framework is decidedly small business friendly, features distinct policies segmenting the supply chain and mandatory distribution requirements, all characteristic that other states lack.
- Our marketplace is much larger than both Colorado and Washington combined. We have a robust informal network of distribution and sales that have kept up with demand for decades.
- The impacts caused by the unregulated and criminal cultivation are much more severe because these activities are much more prevalent.

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We have a lot of growers. Probably more growers than the rest of the country combined. It is a massive regulated community that is economically and geographically diverse. There is a broad spectrum of practices and businesses models that do not exist in other states.

REGULATE EXISTING ACTIVITY TO MITIGATE EXISTING IMPACTS

California has lots of small farms. A few mid-sized farms. Even fewer big farms. These farms are having an impact on our natural resources—today. In order to mitigate those impacts the existing activities must be regulated. It will do no good to create new opportunity alongside the existing market. The existing activities and impacts will remain and it will be much more challenging to address those impacts without access to a regulated marketplace as an incentive. Care must be taken to provide a pathway forward for as many producers as possible.

A BRIEF HISTORY OF CAL CANNABIS POLICY: ACCOMPLISHMENTS AND COMPROMISES

Reviewing the accomplishments and compromises our organization has made provides a good opportunity to understand the trends and benchmark features of the Medical Cannabis Regulatory and Safety Act.

THE LAST YEAR OF FAILURE: 2014

Growers had been organizing at the local and regional level for several years, but it was July of 2014 when the Emerald Growers Association (now California Growers Association) took the growers focused advocacy to the next level by establishing a full time presence in Sacramento. In addition, 2014 was a major year for growers at the local level, with a new level of organization and focus coming to county and city level advocacy groups in communities throughout the state.

The task at hand was immediate and urgent. For the first time in history, local government and law enforcement came to the table in 2014, intent to support cannabis regulation. This changed the policy dynamic dramatically. For the last several years the cannabis industry said “yes” while more conservative stakeholders said “no.” Now, both camps were saying “yes” but to dramatically different frameworks. This changing dynamic was reflected in the success of SB 1262 (Correa), legislation sponsored by the California Police Chiefs Association and the League of Cities.

While growers had a low level of confidence in the rest of the industry—many feeling that industry advocates represented a very small subset of business and were shamelessly self-interested—it was clear that local government and law enforcement meant business. Growers could no longer afford to not be at the table.

In the Summer of 2014 there was a groundswell of support within California’s cannabis community. The grower’s association had new leadership and the threat was clear: SB 1262 threatened to limit the number of cultivations licenses statewide, a policy provision that would create a “choke-point” in the supply chain and allow regulators—including public health, the Board of Equalization and law enforcement—to effectively audit the supply chain to protect quality, ensure taxes were paid and protect against inversion and diversion.
Our fundamental accomplishment in 2014 was successfully opposing SB 1262, specifically provisions in the legislation that limited the number of licenses that would be issued. Our basic message in 2014 is simple and remains true to this day:

**A limit on the number of cultivation license for small cannabis farms would be an expensive boondoggle.**

Rather, care must be taken to create opportunity for as many small growers as possible. Every small grower that is displaced from the regulated market detracts from the public health and safety. From our perspective the success of the regulatory program will depend on the ability of the program to create licensing opportunities for a broad base of operators. The more licenses issued the more successful the program will be.

### A YEAR OF COMPROMISE AND BREAKTHROUGH: 2015

While we successfully advocated against limits on the number of licenses, we quickly found that addressing the public health and safety concerns that had led to the development of those provisions was much more challenging.

The existing cannabis marketplace is informal—opaque and with few “choke points” where products could be tracked, tested and accounted for.

The Medical Cannabis Regulatory and Safety Act of 2015 consisted of three bills (AB 243, AB 266 and SB 643) and provides a robust and comprehensive framework for regulating commercial cannabis activity. This framework was actively supported by local government, law enforcement and growers. It also had supported by professionals in the medical community labor and several other stakeholders. Each of the bills received strong bi-partisan support. The legislation was built on three fundamental compromises:

- **Cannabis cultivation is agriculture** and shall be licensed and regulated by the Department of Food and Agriculture. There will be tiered licenses for different scales of productions and there will be a limit on the size of each grow rather than the number of grows. There will be no limit on the number of licenses issued for small and medium grows.

- **Local permits are the first step.** The law specifics that no person or entity shall be eligible for licensure by the state for any commercial cannabis activity without first obtaining a local license, permit or other authorization.

- **Mandatory distribution will create a choke point** ensuring supply chain integrity, quality control and minimizing tax evasion. A distributor must take custody, possession or ownership of all cannabis products—both agricultural and manufactured—before they are able to be sold into the retail market.

### CONTRASTING VISIONS BECOME CLEAR: 2016

When the governor signed the Medical Cannabis Regulatory and Safety Act, the risk of participating in the cannabis industry was reduced significantly and significant new resources and business owners took an interest in starting businesses. To some, economic growth and making money is a primary concern. However, this is not imperative to the public interest. In order to achieve the public health and safety goals of the MCRSA it is important to focus efforts on regulating the existing cannabis activity.
California must resist the urge to put growth first as the regulated marketplace emerges. Policies that seek to facilitate new participation in the cannabis marketplace deny the reality of our existing marketplace: we are over-producing cannabis and cannabis products. The regulatory program must seek to license existing grows and stabilize the marketplace first; inhibiting new growing opportunities is important to ensuring that existing grows—with existing impacts—are regulated and mitigated. It is critical to the success of the regulatory program that existing activity be the primary focus.

**REGULATORY GOALS**

**REGULATORY GOAL #1: DEFINE TERMS USED IN CANNABIS CULTIVATION**

_The Program will need to define terms not defined by the MCRSA such as canopy, flowering, immature, mixed light cultivation, premises and propagate to ensure regulations are implemented uniformly across the state. What do these terms mean to you?_

“Premises” means a distinct and definite location, which may include a building, part of a building, a room, or any other definite contiguous area occupied by a Licensee and within which the Licensee is permitted to cultivate marijuana in accordance with the provisions of the Medical Cannabis Cultivation Program and is entitled to non-exclusive use of common areas including but not limited to driveways, loading areas, parking areas and restrooms. For the purposes of the Medical Cannabis Cultivation Program, multiple premises may be located within a single building or legal parcel of property.

We suggest that each licensed premise be required to have a perimeter fence or enclosure (greenhouse or room) that is easy to measure. A single premise may contain multiple greenhouses, enclosures or rooms if they are in close proximity to each other and the cumulative square footage is consistent with the license type applied for.

Each premise must be licensed individually. This should be visible from aerial surveillance (if outdoor or greenhouse) and easy to measure (open access to exterior walls) if indoor. This will allow for ease of measurement and validation while still accommodating flexibility.

For license Type 1A that allows for a 50 plants, these plants should be clearly visible from aerial surveillance and accessible during an inspection. These plants should be clearly associated with a residence or single access point.

Multiple “premises” should be allowed at one site or parcel to allow for clustering and cooperative cultivation.

We suggest that “canopy” be defined as .75 of a clearly designated “premise” to allow for walkways, work space and safe access. So, a 5,000 square foot grow would allow for 6,250 square foot “premise.”

**REGULATORY GOAL #2: DEFINE THE APPLICATION PROCESS AND REQUIREMENTS FOR LICENSING**
The Program is considering using an online application process, as well as a traditional paper method. Which application method would you prefer?

We suggest both. If choosing one is required, we would prefer online.

The Program is considering a weapons and firearm ban at cultivation sites to protect State enforcement staff. How will that affect you?

This would be unworkable, particularly in rural areas. Excluding firearms from “premises” would be workable, provided that term is defined so as to clearly specify the premise as a clearly designated space and not the entire parcel.

REGULATORY GOAL #3: IDENTIFY THE CULTIVATOR LICENSE TYPES BY LIGHT SOURCE AND SITE SIZE; CLARIFY ALLOWABLE LICENSE COMBINATIONS; OUTLINE RENEWAL PROCESS AND SET LICENSING FEES

What is the acreage you feel is reasonable for the cap? How about for indoor and mixed light?

This is a critical question and is central to the success of the regulatory program. There are tens of thousands of existing cultivators. In order to mitigate the impacts caused by this unregulated commerce it is critical to create opportunity to bring these businesses into the regulated marketplace. A cap on cultivation is a critical component to the success of the regulatory program.

It is also important to note that a small amount of land is required to produce all of the cannabis consumed in the state; estimates are as low as 12 to 15 hundred acres. If the cap on cultivation is too high a smaller number of growers will have access to the regulated marketplace and the negative impacts of unregulated agriculture and commerce will persist.

Generally, our members think that a limit at 1 acre (cumulative total per owner) is an appropriate limit. We recommend that a single licensee be allowed to hold up to four cultivation licenses, with an initial limitation to one Type 3 Outdoor license and two Type 3A Mixed-light licenses or Type 3B Indoor licenses.

If a licensee is growing cannabis exclusively for manufacture, our members would support a higher cap on cumulative square footage, however we strongly oppose any cap on cultivation that is higher than 4 acres (consistent with the Type 10A license).

When does a cultivator also need a manufacturing license?

A cultivator should be required to obtain a manufacturing license any time they:

1. Manufacture products using agricultural products they did not cultivate themselves. In other words, any time a licensee obtains products from another licensee to use in manufacturing processes.
2. Engage in manufacturing processes that require a “Level 2 Manufacturing” license
3. Cultivate more than 10,000 square feet of cumulative area
Are joints, dry sieving, and water concentrating a form of manufacturing or within the scope of cultivation?

Yes, we think that joints, dry sieve and water concentrates are “processed agricultural products” or “manufactured products.” We think these processes—in addition to alcohol extraction should be authorized by cultivation licenses.

The Program is responsible for establishing the amount of artificial light units considered reasonable for a mixed light/light deprivation cultivation sites. What do you think is a reasonable amount of lighting to be used and still be considered a mixed light cultivation site?

We recommend that the lighting requirement is based on the licensed “premise” not the life cycle of the plant. For example, a clone propagated under artificial light could be grown “outdoors” if there was no supplemental lighting on the “premises.”

The Program is required to limit the number of Type 3 (largest license type) licenses issued. What method do you consider fair for establishing these limits?

State law mandates that there will be a limit on the number of Type 3 licenses issued. We posed this question to our membership as part of our recent strategic planning survey. We found:

- 27 percent of our members think no Type 3 licenses should be issued in 2018;
- 13 percent think there should be less than 250;
- 13 percent think there should be between 250 and 500;
- 7 percent think there should be more than 500;
- 40 percent think there should be unlimited Type 3 licenses.

There is a breaking point at 500 licenses; 53 percent favor less and 47 percent favor more.

The state should be extremely conservative in the issuance of licenses. Licensing more, smaller cultivation operations will provide significantly improved outcomes for the state. The agency should ensure that there is a market demand for more product prior to issuing Type 3 licenses. The highest priority of the state must be reducing the number of unregulated cultivation operations and this will best be achieved by bringing as many growers as possible into the regulated marketplace. Licensing too many Type 3 cultivation sites too early in the process will inhibit participation and limit the opportunity for existing growers to participate in the regulated marketplace.

We recommend that Type 3 licenses be issued based on performance metrics. For example, preference should be given to applicants who are offsetting their energy use or who do not divert stream or ground water. Environmental mitigations should be mandatory for Type 3 licenses.

REGULATORY GOAL #4 SPECIFY REQUIREMENTS TO MITIGATE ENVIRONMENTAL HEALTH AND PUBLIC SAFETY ISSUES
Rain water harvest and storing peak flows are critical strategies for mitigating stream flow impacts. SB 837 provides a pathway for streamlined water storage permitting. This program must be developed and implemented expeditiously. It will be critical to to the overall success of the regulatory program to ensure that there are options to forebear from water diversions.

Additionally, indoor cultivation requires significant energy. Incentives should be developed and implemented for energy reduction technologies and offsets should be required.

Fencing is reasonable, but beyond that security measures should be up to local governments to determine.

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**REGULATORY GOAL #5 OUTLINE CULTIVATOR RESPONSIBILITIES FOR COMPLIANCE INSPECTION**

Require a site plan in addition to the following:

- Clearly label the address. Lack of addresses in rural communities is an acute issue for emergency services and law enforcement. It will also impact inspectors.
- Clear walkways
- Access to perimeter fence and/or perimeter walls to enable streamlined measuring

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**REGULATORY GOAL #6 SPECIFY TRACK AND TRACE REQUIREMENTS**

Cultivators generally retain very few records. This type of information was often used as evidence in prosecution and limiting record keeping is standard operating procedure and has been a key component of success in this industry historically. We strongly recommend sensitivity to this reality. The operators and the state share responsibility for this bad business culture and we must collaborate to implement better practices but it will take time.

We suggest the following reports be required for all cultivation license types:

- **“Planting”** report: report on the number of plants that are planted. Report should include:
  - Number of plants
  - Varietals (strains) to be grown
  - Recognized appellation (if applicable)
  - Total square footage planted
  - Estimated harvest date
  - Appellation of origin
- **“Harvest”** report: report detailing the total number of plants harvested and the estimated total yield of marketable products.
  - Product types described should include flower, trim, leaf and stems. Anything not reported in the harvest report cannot be “distributed” or used in manufacturing processes.
- **“Distribution”** report: report detailing all products that are sold or transferred to a distributor for testing and eventual distribution to dispensaries for sale to consumers
“Miscellaneous” report: report detailing unexpected events, crop failures or any significant change to the information provided in the planting or harvest report. This report helps cultivators document unexpected events that may lead to discrepancies between expected yield and distributed products.

In addition, we suggest the following reports be required for mixed light and indoor grows:

- “Addendum to Planting” Report should include:
  o Dates you will change the photo-period, i.e. when will you flip the plants from “vegetative” growth to “flowering”

REGULATORY GOAL #7 STATE LICENSE VIOLATIONS AND APPROPRIATE PENALTIES

Hearings should be held within 30 days of the alleged violation.

Crops must not be destroyed until after the hearing unless the violation involves an activity that would endanger consumers.

GENERAL COMMENTS ON THE CEQA EIR PROCESS

As set forth in the Notice of Preparation (NOP), the Program Objectives include the following objective:

“Develop a cultivation checklist tool that can be used by CDFA, other agencies, and local governments to evaluate environmental impacts of cannabis cultivation license programs.”

The NOP provides no additional guidance concerning the intended purpose of this “checklist tool” or its relationship to the California Environmental Quality Act (CEQA) (Public Resources Code 21000–21189). A clear explanation concerning the purpose of this “checklist tool” is critical to avoid conflicts or confusion as related to the type of future CEQA review that may be required as local agencies develop their cannabis cultivation license programs and/or issue individual cultivation licenses.

For example, as set forth in a number of jurisdictions’ zoning codes, cultivation operations may be permitted by right subject only to a ministerial approval. Ministerial approvals are not subject to environmental review pursuant to CEQA. (See, e.g., CEQA Guidelines, § 15268 [building permits and business licenses are generally presumed to be ministerial].) For these ministerial projects, no “checklist tool” is necessary to assist a local agency in complying with CEQA.

Additionally, based on a fact specific inquiry by the relevant local jurisdiction, many local cultivation license programs and/or individual cultivation projects have been, and may continue to be, found exempt from CEQA pursuant to one or more statutory or categorical exemption. (See, e.g., CEQA Guidelines, §§ 15301 [existing facilities], 15303 [new construction or conversion of small structures], 15304 [minor alternations to land], 15332 [in-fill development projects].) It is unclear how the “checklist tool” will relate to projects that are found exempt from CEQA. To avoid confusion, we suggest that the regulations provide that the “checklist tool,” like a standard CEQA initial study, is considered as part of the second stage of the CEQA analysis following the preliminary review.
to consider whether a project is exempt from CEQA. (See, e.g., CEQA Guidelines, § 15063 [initial study, if needed, is considered “[f]ollowing preliminary review”].)

Finally, as the regulations require existing operations to obtain cultivation licenses, for the purposes of CEQA, many existing cultivation operations will have no impacts above baseline conditions. We recommend that “checklist tool” be drafted to make clear that, consistent with CEQA’s standard approach, existing conditions should normally be treated as baseline for the purposes of environmental review.

We suggest the EIR include language that explains that the intent of the program level analysis is to allow local projects to tier from, and—ultimately—rely on, the statewide PEIR to reduce the need for future CEQA review of those local projects. The PEIR could include mitigation measures that, if adopted by locals, could be relied upon to determine the local impacts are less than significant.

Lastly, we encourage the development of a certified regulatory program consistent with Section 21080.5 of the Public Resources Code. This program will help ensure a high degree of professionalism and effective implementation of regulations.

In closing, thank you for the opportunity to comment on this historic rulemaking process. Also, we would like to thank the regulatory and EIR staff for their great work throughout the scoping process. This type of dialogue is critical to successful implementation of the regulatory program. We look forward to continued engagement with agency staff as the rulemaking process proceeds.

Respectfully,
Attached please find Weedmaps' public comments regarding adoption and implementation of statewide medical cannabis cultivation regulations.

Thank you for the opportunity to provide our input. We look forward to working collaboratively with CDFA.

Best regards,

Weedmaps
September 30, 2016

Amber Morris
Branch Chief
California Department of Food and Agriculture
1220 N Street, Suite 400
Sacramento, CA 95814

Re: Medical Cannabis Cultivation Comments

Dear Ms. Morris:

Founded in 2008, Weedmaps is the oldest and largest marijuana technology company in the world and has been the leading innovator in developing software and platforms that drive the marijuana industry. Our core platform connects people with local marijuana dispensaries, delivery services, doctors, deals, brands, lab data and real-time menus. Weedmaps’ full suite of business-to-business and business-to-consumer software includes lab data integration, point-of-sale and medical practice management.

Beyond providing the software and advertising solutions that underpin the industry, Weedmaps has been advocating for measured growth and responsible policy to guide the modernization of the industry for nearly a decade. Weedmaps is working collaboratively with all levels of government and stakeholder organizations to encourage reforms to medical marijuana laws and establish regulatory frameworks capable of ensuring safe and reliable patient access.

Weedmaps is committed to working with the California Department of Food and Agriculture, state and local agencies, industry participants, non-governmental organizations and trade groups to organize comprehensive marijuana policy solutions that accommodate existing medical marijuana businesses, enable industry growth and address public safety, health, tax and community reinvestment goals.

As CDFA develops regulations to implement the Medical Cannabis Regulation and Safety Act (MCRSA), Weedmaps would like to provide our policy recommendations and thoughts on designing a workable and safe regulatory regime.

MCRSA requires that protection of the public be the highest priority of all the state licensing authorities involved in cannabis regulation. To meet this goal, it is imperative that regulators and the industry work together to eliminate the illegal market for cannabis. The primary driver of marijuana illegal markets is the combination of: (i) policies which overly restrict the availability and ease of purchasing marijuana through legal channels, (ii) high effective tax rates
and compliance costs on legal marijuana and (iii) insufficient quantity and quality of legal marijuana for sale in a market.

As CDFA moves towards implementing MCRSA, we believe the illegal market can be reduced and public protection goals can be met by following these policy principles:

- **Ensure sufficient patient supply and access**: Set strong health and consumer protection standards while allowing for broad participation within the regulatory framework. Allowing all businesses that can demonstrate compliance with the law and regulation to participate will improve patient access to safe and licensed medical marijuana while undercutting the illegal market.

- **Make any license caps flexible**: The statutorily mandated limit on Type 3, 3A and 3B licenses should be flexible and adjustable up or down to meet the public protection and regulatory goals of the department.
  
  ➢ The criteria the department should consider when setting this cap includes, but is not limited to: public safety and protection; patient need and access (statewide and by region); effects on the illegal market; and mitigation of negative environmental impacts.

Prior to setting any license, square footage or acreage limitation outside of what is specifically required in MCRSA, CDFA should have a full understanding of the effects such a limitation would have on the criteria listed above, particularly the effect on the illegal market. Limits in regulated marijuana supply can cause legal marijuana prices to skyrocket while illegal markets can find alternative sources more fluidly. Despite this, the effect of price differences can be mitigated if there are higher quality products and desired brands being sold through legal channels. To accomplish this, there should be a trend towards more cultivation licenses to ensure robust competition to create premium products and sufficient supply to legal points of sale.

- **Create simple and adaptable licensing rules**: The medical marijuana market is still in its early stages and continues to evolve rapidly. Licensees will have to demonstrate compliance with already complex and sometimes conflicting state and local laws. Accordingly, policy should enable regulators to rapidly adjust density and operation of marijuana businesses to quickly respond to spikes in illegal market usage.

Some local governments have adopted licensing rules and regulations outside the scope of what is permitted in MCRSA. CDFA’s regulations should help to better inform local governments but also allow businesses who have made a good faith effort to comply with existing state and local laws the opportunity to obtain a license. The following recommendations can help provide needed flexibility:
Define “premises” as not only a building or physical address, but also as portions of a building where cultivation occurs. This will allow cultivators operating in buildings larger than 22,000 square feet to come into compliance with state law.

“Plant canopy” should be defined to include square footage dedicated to plant cultivation. It should not include space used for the storage of fertilizers, pesticides or other products, quarantine, office space, etc.

- **Keep application and licensing costs relatively low:** The plethora of compliance costs and taxes at the state, county and city levels as well as at different points of the supply chain (cultivation, processing, retail, etc.) threaten to raise the cost of legal medical marijuana while providing a competitive price advantage to illegal market operators who aren’t subject to the same standards. License fees should be set relatively low, particularly during this initial regulatory stage, to allow more compliant marijuana businesses to enter the legal market.

- **Collect meaningful data:** The illegal market for marijuana is poorly understood in most jurisdictions. Regulators must be given robust and real-time data to quickly adjust marijuana policy to effectively undercut illegal markets before they become rooted. At the same time, the data collected must be well tailored to avoid driving up already high administrative and compliance costs for operators. All marijuana businesses should be required to provide periodic data to relevant state and local regulatory agencies that includes volume and tracking data from the seed-to-sale systems as well as retail data from point of sale systems.

A flexible regulatory structure that is simple and affordable for businesses to follow will foster compliance, help weaken the illegal market and protect the public. We believe this concept should also apply to CDFA’s product and technology procurement with respect to medical marijuana. The products and technology the department decides to utilize should recognize existing best practices and steps cannabis businesses have taken to monitor production, processing, distribution and sales.

Pursuant to MCRSA, every cannabis plant greater than eight inches must receive a unique identifier. If not tailored appropriately, this requirement can be burdensome and costly. Requiring the purchase of specific tags or hardware will create market inefficiencies and artificially inflated pricing. An open source solution should be offered. The unique identifier chosen should have an open standard for tags and common serial database such that tags may be produced by a variety of manufactures.

While MCRSA requires plant tagging, a per-plant method for tracking has several limitations and is not consistent with existing cultivation best practices. A single plant’s yield can vary due to a number of environmental factors and plant count in and of itself is not the best indicator of
how much marijuana is being grown by a cultivator. Yield and volume metrics give a better indication of a cultivator’s footprint and help monitor for suspicious activity.

There are a variety of tracking systems and technology that are currently being used by hundreds of cannabis businesses. While businesses will inevitably have to make changes to meet the requirements of MCRSA, existing business models should not be completely upended. So long as a business can demonstrate compliance with state and local rules, they should be able to utilize technology and products that best serve their needs and the needs of their patients.

For example, Washington State selected a specific track and trace software, but allows licensed marijuana producers, processors and retailers to employ their own inventory tracking software solutions as long as it allows for the collection and submission of the specific information and reports required by the seed-to-sale inventory tracking rules for licensees.

The track and trace system CDFA procures should be flexible enough to accommodate and integrate with software and products utilized by cannabis businesses. This can be accomplished by selecting a track and trace system that supports interoperability with front-end cannabis business software applications and is tailored to promote the following goals:

- Adheres to best practices with respect to encryption for data as generally utilized by similar software systems. These best practices include simple configuration; a visual and intuitive interface; integration with the work process; flexible and powerful reporting features; and relevance with the work process.
- Provides uniform third party access to collected data to the extent permitted by the state and local governments.
- Protects personal information of patients to the extent mandated in MCRSA.
- Minimizes administrative burden to marijuana businesses and is tailored to collect only that information which is relevant to state needs.
- To the degree that specific ancillary goods, hardware or software are needed, require an open standard and the ability to source such goods from third-parties.
- Compatibility with a variety of hardware and software systems, including through an open-access application program interface (API) (see specifications below).

The track and trace system should allow all licensee-facing system activities to be performed by a secure open-access API. Qualities of good API include:

- The API should be well documented. API documentation describes what services an API offers and how to use those services and is crucial for the development and maintenance of applications that use the API.
• The API should have a bidirectional integration, which enable data to flow in all directions and allow two or more separate systems (e.g. two separate track-and-trace programs) to seamlessly sync data.
• The API should be real time, meaning new data is shared instantly within the system.
• The API should be accessible to any front-end application that has been validated and has appropriate credentials.
• The API should have version control, which tracks and provides control over changes to source code. Version control software keeps track of every modification to the code. If a mistake is made, developers can compare earlier versions of the code to help fix the mistake while minimizing disruption.
• Adequate notice of API updates should be provided to front-end applications (e.g. at least 6 months) including appropriate specification documents.
• The system should provide a test environment for front-end applications to access that mirrors the production environment.

To ensure that limited regulatory resources are spent most productively, the system should include robust alerts and reporting around any events in the cannabis life-cycle that fall outside of expected parameters—i.e. if a harvest yields less than expected—some kind of justifying reason such as crop failure, etc. should be provided along with a record of plant destruction. A transparent and consistent government regulatory program, including a robust and comprehensive seed to sale software tracking system helps support a tightly controlled “chain of custody” model as well as helping prevent diversion and fraud.

Thank you for the opportunity to provide public comments and contribute to the regulatory process. We look forward to working with CDFA to create an effective regulatory system for cannabis cultivation.

Respectfully,

President and General Counsel
Vice President of Government Relations
-----Original Message-----
From: [Redacted]@CDFA
Sent: Wednesday, September 7, 2016 9:32 PM
To: [Redacted]@CDFA
Subject: California's Cannabis Production Estimates for 2018 and beyond...

Greetings,

I have attached a 4 page analysis of California's likely medicinal cannabis production quotas, based on my expert opinion. I serve as an Expert Witness to the Courts, and as an industry constant and educator. I'm also a prospective applicant for one or more licenses under M.C.R.S.A.

Please review this document, as part of your ongoing deliberations, and include it within your Workshop Survey and other discussions between State and Local Licensing Agencies, in regards to the subject of overall numbers and types of Licenses offered under M.C.R.S.A.

I thank you for your time and consideration in these matters. I am available to discuss these matters in more detail, in either a voluntary or professional capacity.

Sincerely,

[Redacted]
California’s MCRSA Cannabis Production Requirements for 2018

By [Name] (Expert Witness / Canna-business Consultant)

Greetings,

After having reviewed the ongoing regulatory developments under M.C.R.S.A. at the State and Local levels, it has become clear to me that California’s Licensing Agencies may have no idea what amounts of cannabis the legal consumer market currently requires. This information is crucial in determining the number and types of cultivation licenses issued in 2018, in order to prevent unnecessary diversions into the criminal market being directly caused by misinformed licensing restrictions. I am concerned that the changes which M.C.R.S.A. represents to the marketplace realities of cannabis cultivation in California have not been properly addressed, by State and Local Licensing Agencies. In the interests of fairness to the industry, and in order to ensure the success of M.C.R.S.A., I’m offering you the correct methodology required to determine the aggregate needs of patients’, in order for your agencies to know what California’s ongoing cannabis production requirements really are:

1) Determine # of Qualified Patients in California. According to conservative estimates conducted by California NORML and by independent California cannabis physician specialists, the number of patients who have qualified under the C.U.A. in the past year is around 3 million. This number is probably lower than the actual amount, but for our purposes here, it is most certainly not an overestimation, and should prove to be a good starting point for determining California’s current cannabis needs.

2) Determine the methods of delivery employed by patients to consume their cannabis, based on the percentages of cannabis they inhale, consume in edible form, and consume in solution, topical and concentrated forms. While these numbers may be illusive at first, polls of existing dispensaries can provide a window to this information now. In the absence of more detailed information, we can at least assume that around 1/3 of cannabis is inhaled (smoked or vaporized), around 1/3 of cannabis is used in edible forms (foods and beverages), and around 1/3 of cannabis is used in solutions (tinctures), in concentrated forms (keif and charas, hashish, hash oils and waxes, etc.), and in topical forms (salves, ointments, etc.). Again, the actual figures will become more understood with proper surveys of the industry. But for our purposes here, these numbers are a good starting point.

3) Determine the average use patterns of patients, per annum. For this step, we’ll only look at the amounts that patients inhale (smoke or vaporize), for reasons which are explained in #4. Based on research conducted by numerous cannabis physician specialists, the average amount of cannabis consumed by 70% - 80% patients in California (who use inhalation as the primary method of delivery), is 3 pounds of cannabis per year. Obviously, the availability and price of the cannabis are also factors to consider, but this figure represents how much cannabis patients tend to require for their medical purposes. Factors such as price and availability are directly related to the licensing system itself, and have no bearing in this particular conversation. Also
worth note, only the processed flowers (buds) are counted for purposes of inhalation (as “usable” cannabis under the M.M.P.A.)

4) Determine the amounts of cannabis required to manufacture the various plant conversions, as defined in the M.M.P.A., which patients consume. As an Expert Witness, I have firsthand knowledge in this subject. It requires 3-5 times (4 times) the amount of cannabis that a patient would inhale, in order to manufacture a comparable dosage in edible form. Likewise, it requires around 10 times the amount of cannabis that a patient would inhale, in order to manufacture a comparable dosage in concentrated form, in solution form, or in topical form. It’s worth noting that the leaves and flowers can be used to manufacture plant conversions.

5) Now apply these figures into a simple calculation, in order to show how much cannabis California patients are likely to require, in the calendar year 2018:

1 million patients who primarily inhale x 3 pounds per year = 3 million pounds

+ 

1 million patients using edibles x 12 pounds per year (3 lbs. x 4) = 12 million pounds

(The amounts of leaves and flowers produced by cannabis plants is equivalent, so this figure represents 6 million pounds of buds and 6 million pounds of leaves)

+ 

1 million patients using solutions, topicals & concentrates (3 lbs. x 10) = 30 million pounds

(The amounts of leaves and flowers produced by cannabis plants is equivalent, so this figure represents 15 million pounds of buds and 15 million pounds of leaves)

= 45 million pounds of cannabis (24 million pounds of buds and 21 million pounds of leaves)

6) There are other factors to consider, such as: The monthly breakdown of these figures; The amount of time it will take for the industry to ramp up enough to provide cannabis to every patient in California; increases to the qualified patient population, and; policies regarding the secured storage of excess cannabis during times of overabundant supplies, in order to maintain stores in between harvest times, and during times of dwindling supplies. However, these will be addressed through adjustments of the market itself, and are not factors requiring outside intervention by the State, at this time.

Additionally, should California ever legalize cannabis for adult use, the number of consumers will increase dramatically, even though the amounts required by individual recreational users will likely be less than those of individual patients. If proposition 64 passes in November, the amounts of cannabis required in California will be substantially higher.

7) Determine the amounts of cannabis flowers that plants produce. As an Expert Witness, I have over 20,000 hours of experience in the cultivation of cannabis, in all stages of growth and
in all mediums. This includes experience with determining the yields of plants, based on methods established by our own federal government (D.E.A.). A cannabis plant can produce an average of 1 ounce of flowers per square foot of plant canopy. This takes into account the high end of 2 ounces per square foot, and the low end of ½ ounce per square foot.

8) Determine the approximate area of plant canopy required to produce California’s annual supplies of cannabis:

24 million pounds (384,000,000 ounces) / 1 ounce per sq. ft. = 384,000,000 square feet of plant canopy.

9) In order to determine how many licenses, in each category, are required to achieve these results, it will be necessary to calculate the following:

A) How many cities and counties are moving forward with licensing under M.C.R.S.A.? They represent 100% of the cultivation licenses that will be required, in order to produce this amount of cannabis for the entire state patient population.

B) What are reasonable breakdowns for Type 1, Type 2 and Type 3 Licenses, in each of those jurisdictions? Remember, Type 1 farms can produce up to 5000 square feet of plant canopy, Type 2 farms can produce up to 10,000 square feet of canopy, and Type 3 farms can produce up to 43,560 square feet of plant canopy.

C) What is the best equation for issuing cultivation licenses, in conjunction with the number of dispensaries and manufacturers that are licensed, at any given time? This requires the coordination of 3 separate State Licensing Agencies, as well as dialogue with all Local Licensing Agencies.

A very basic breakdown of the number of cultivation licenses required, focusing only on 9(B), and disregarding, for the moment, the unknown factors represented in 9(A) and 9(C), we are left with the following:

Type 1 Licenses Alone = 384,000,000 / 5000 = 76,800 Licenses

Type 2 Licenses Alone = 384,000,000 / 10,000 = 38,400 Licenses

Type 3 Licenses Alone = 384,000,000 / 43,560 = 8,815 Licenses

The actual break-down would be some combination of these three figures. For example, if around 50% of licenses are Type 3, 25% are Type 2 and 25% are Type 1, California will require 4,408 Type 3 farms, 9600 Type 2 farms, and 19,200 Type 1 farms.

These numbers represent the ultimate number of licenses that California may require, once the program is completely underway. It may take a few years to get to this point, and this is all predicated on a more thorough understanding of actual dispensary sales, and on determining other factors which are unknown at this time, such as those contained in #6, #9A, and #9C.
Even if only 25% of this goal is met in 2018, ramping up additional licenses as the market develops, California will need to issue at least 1100 Type 3 Licenses, 2400 Type 2 Licenses and 4800 Type 1 Licenses, in the first year alone.

**Conclusions:** The most significant thing for you understand from the information contained in this document, is that any artificial limitations placed on the number and types of Cultivation, Dispensary and Manufacturing Licenses, enacted without a clear understanding of the subjects I’ve raised herein, will essentially undermine the effectiveness of this program, and will ultimately play into the hands of the criminal market if patients cannot obtain their cannabis from licensed dispensaries.

The regulations and licensing requirements already in place under M.C.R.S.A., combined with the sheer volume of cannabis required by California patients, create a sufficient barrier to prevent the issuance of “too many” cultivation licenses. If anything, the high demands for cannabis alone may very well outpace the legal supplies available in the market, without any artificial restrictions being placed on the types and numbers of cultivation licenses issued by the C.D.F.A.

These figures should help you to better determine the number and types of cultivation licenses California is likely to require. I am available for consultations with all State and Local Licensing Agencies, if you would like more information about these topics. I am also available to provide your agencies with an estimation on the number of dispensaries the State may require in each community, based on the patient populations from surrounding “banned” jurisdictions.

In closing, please consider this request: That C.D.F.A. rethink the subject of Type 3 License restrictions, and advises Local Licensing Agencies, accordingly. Due to the enormous plant canopy required to produce all of California’s annual medical cannabis supplies, the fewer Type 3 farms that are licensed, then more Type 2 and Type 1 farms will be required. Due to local zoning constraints, coupled with the number of cities and counties having effective cannabis “bans”, the number of parcels available for cultivation is already quite limited. So having a significant number of Type 3 farms will actually reduce the burden of having too many smaller farms, in any given community. Because Local Licensing Agencies might also choose to artificially limit the number and types of licenses issued, it may be a good idea for C.D.F.A. to develop statewide production quotas and to suggest a reasonable combination of cultivation licenses, so that local agencies have the information they need to evaluate their own licensing standards. I suggest reserving 50% of Total Plant Canopy (TPC) for Type 3, 25% of TPC for Type 2 and 25% of TPC for Type 1, in any given jurisdiction. But whatever numbers you choose, utilizing total plant canopy is the best way to evaluate the # of licenses available to each category.

I thank you for your time and consideration in this matter. 9/7/2016

Sincerely,
-----Original Message-----
From: [REDACTED]
Sent: Monday, September 26, 2016 4:12 PM
To: CDFA Medical Cannabis Cultivation Program@CDFA; Morris, Amber@CDFA; Wagoner, Monica (CDPH-LGA)
Cc: [REDACTED]
Subject: Completed MCCP Workshop Survey and Cannabis Production Requirements

Greetings,

Please review both of these attached documents and include them within your discussions regarding the Medical Cannabis Cultivation Program. These documents include complete answers to all of the questions that CDFA and CDPH have posed through your workshop surveys thus far. Please share them as you will, and use them to facilitate the success of The Program. Feel free to contact me if you have any questions.

Sincerely,

-----Original Message-----
From: Rains, Lindsay@CDFA on behalf of CDFA Medical Cannabis Cultivation Program@CDFA
To: MCCP. PEIR, CDFA@CDFA
Subject: FW: Completed MCCP Workshop Survey and Cannabis Production Requirements
Date: Friday, September 30, 2016 3:59:10 PM
Attachments: CDFA Correspondance #1 Complete Answers to Workshop Survey.pdf
CDFA Correspondance #2 Determining Annual Production Requirements.pdf
Attention: California Department of Food and Agriculture 9/25/2016

Amber Morris (C.D.F.A.), California Department of Public Health, Monica Wagner (D.D.P.H.)

C.c.: Senator Mike McGuire, Senator Rob Bonta, Assemblyman Jim Wood,

Regarding: Proposed Regulations for Cannabis Cultivation Licensing in 2018

From: [Name] (Expert Witness / Cannabis Industry Consultant)

Greetings,

After having reviewed the C.D.F.A. website and workshop survey, my partner and I were pleased to attend two of your recent public workshops. We’ve prepared a complete analysis of the questions and issues that you’ve raised so far regarding development of the Medical Cannabis Cultivation Program, for your review and consideration. The answers appear in the exact order they are presented in the survey, followed with some new subjects at the end.

I’ll begin with a brief concern, which stems from the realization that none of the private consultants that we met at your meetings seemed to know anything about the cannabis industry. They were all very helpful in terms of gathering information, and the meetings were organized and very inviting to the public. But so far, it appears as though CDFA has not considered retaining cannabis industry consultants and experts, and is instead relying on our participation through these public meetings (sitting on the sidelines, as it were).

The information contained herein effectively answers the questions presented in your workshop survey, and will also serve to explain many things which CDFA has yet to ask, or may have previously been unaware. This document is separated into relevant topics, for your convenience, and is intended to provide enough information to successfully begin the task of implementing this Program. I intend on following up with all Licensing Agencies and State Legislators, in order to facilitate better regulations and suggest potential “clean up” language in M.C.R.S.A. by 2018.

I have 20 years of experience with the cannabis industry, and my experiences include serving as an Expert Witness to the Courts. If your agency decides to retain consultants with actual industry experience, I have a current W-9 and a Vendor Number with Sacramento County, am available as an independent contractor and would like to help.

Sincerely,

[Name]
1) Definitions of terms.

A) **Canopy.** Plant canopy is defined as the area shaded by the plant’s leaves, and the area of the leaves themselves. The plant canopy directly determines the plant’s ability to absorb light energy, and is one primary factor used in the equation required to determine the probable yield of any given plant (with the other primary factor being the amount of available light itself, in Lumens).

Cannabis plants continue their radial outward growth until about 1/3 way through their flowering stage. After which point, the plants cease growing completely and dedicate 100% of their energy to completing their flower (or seed) production. Therefore, the time to measure a plant in order to determine its final canopy is when it’s 1/3 of the way into flowering.

In order to ensure uniformity in the application of this term, the measurements should always refer to “feet” or “square feet”. The area of a plant is determined by first measuring its diameter, then dividing that by 2 in order to determine its radius, then applying the calculation $A = \pi r^2$.

**Note:** While there is no “statutory definition” of plant canopy, there are well established, scientific agricultural practices regarding this subject, and I must point out that it is no different for cannabis than any other plant. For the purposes of the discussion regarding whether to include the entire grow space, or to measure the plants individually, I have three suggestions:

I. Allow applicants to choose either method, based on their growing techniques (not all farms grow cannabis in “rows”). If farmers choose the “individual plants” option, provide them with within the Track and Trace Program for them to record and verify the individual plant measurements;

II. For applicants who choose the “grow area” option, in order to not misidentify the space required for walkways in between the rows of plants as being part of the plant canopy (which it most certainly is not), simply allow farmers to measure each individual row’s plant canopy and then add all of the rows together to establish the total. This data can likewise be recorded and verified through a Track and Trace Program;

III. Likewise, the total area used to cultivate cannabis will naturally include other non-producing areas, including: storage areas for equipment and supplies; work spaces for on-site processing and handling; staging areas for plant quarantines and pest management; crew breakrooms and restrooms; and even extra space to
accommodate Security Features and Local Setback requirements (which vary between jurisdictions). Therefore, any rules which include these areas, or the walkways discussed above, within the total “area” of allowable cultivation will artificially decrease the space allowed for actual plant canopy, and thus reduce the possible yields from the cannabis plants. The term “plant canopy” should not be incorrectly used to include these spaces, as part of the total area allowed under each Category (i.e. 2500 sq. ft., 5000 sq. ft., 10,000 sq. ft., 22,000 sq. ft. and 43,560 sq. ft. / 1 acre, respectively).

B) Flowering. I suggest that you also include the word “mature”, if you mean to contrast the description with your next word, “immature”. For the purposes of M.C.R.S.A., “flowering” and “mature” do not share the same meaning.

While cannabis plants are in the “flowering” stage of growth, they transform energy into flower (or seed) production. In the northern hemisphere, flower production begins in outdoor plants mid-way between the Summer Solstice and the Autumn Equinox, on or around August 1.

Contrary to popular belief, the flowering process in cannabis is actually triggered by the hours of total darkness, not by the hours of available light. Note: Any artificial lights (security, etc.) aimed at cannabis plants at night will interrupt and damage the flowering process, with the exception of bulbs that emit spectrums of light the plants cannot “see” (green bulbs, etc.).

For indoor farming, flowering begins when the total darkness increases from the vegetative growing phase (of 6-8 hours per day), to the flowering phase (of around 12 hours per day). With indoor farming, the frequency of light also changes, from more of the Blue Spectrum during vegetative growth, to more of the Red Spectrum during flowering.

The duration of flowering until the plants are mature depends entirely on the strains of cannabis being grown, and lasts between 5 weeks and 12 weeks, accordingly.

Only the flowering cannabis plants produce any “usable cannabis”, as that term is defined under the M.M.P.A. “Usable cannabis” means the dried, processed, mature female cannabis flowers (excepting mother plants producing seeds, which are not “usable” under the M.M.P.A.).

“Mature” simply means the end of the flowering phase, when the plant is finished producing flowers and is ready to harvest. This is true for all agricultural crops, and is no different with cannabis.

C) Immature. This term is tricky, because it has an agricultural meaning that may differ from its practical meaning under M.C.R.S.A.
For our purposes here, let us assume a Third Term that describes the phase of growth in between “immature” and “mature”. Let us call that phase of growth “vegetative”. This language is already found within the C.U.A. and the M.M.P.A.

Cannabis plants are considered to be immature throughout the entire processes of sprouting (from seeds) and cloning (from cuttings). All the plants produced in Type IV Nurseries are initially considered to be “immature” (excluding any “mother” and “father” plants used for breeding and propagation purposes), until such time as they enter a vegetative stage of growth. While cannabis plants are in the “immature” stage of growth, they transform energy into root production.

**Note:** The current outline of Draft Regulations for the Medical Cannabis Cultivation Program should be corrected, in regards to distinctions made in the Track and Trace Program between Immature Plants (requiring Unique Identifiers for Batches of plants) and Vegetative or Flowering Plants (requiring Unique Identifiers for individual plants). The current draft defines this distinction as anything below or above 8 inches in height. This should be changed to the description offered herein. Setting an arbitrary height is completely meaningless, impractical and non-enforceable. Plants are immature until they have established roots and have been placed into vegetative growth. Their size is completely irrelevant, and has nothing to do with their stage of growth, or the purposes for which they can be used.

Immature cannabis plants do not produce any “usable cannabis”, as that term is defined under the M.M.P.A. However, the plant waste from freshly culled immatue cannabis plants will be used to process or manufacture certain cannabis plant conversions, as the young plants have unique medicinal properties. This should be allowed to continue under M.C.R.S.A., within the Track and Trace Program (whereby the clones or seedlings can be directly transported to the manufacturers).

“Vegetative” is the phase of growth in between “immature” and “mature”. This term is utilized in the M.M.P.A., for the purpose of determining the number of plants a patient may begin cultivating for his or her own medicinal purposes (12 plants), in contrast to the number of flowering plants that patient may harvest (6 plants).

Vegetative cannabis plants do not produce any “usable” cannabis, as that term is defined under the M.M.P.A. While the plant waste (leaves) produced from vegetative plants can still be used to process or manufacture a variety of cannabis plant conversions, it is those conversions which are measured or weighed to determine dosages, not the plant waste itself. While cannabis plants are in the “vegetative” stage of growth, they transform energy into stem and leaf production, and radial outward growth.
D) **Mixed Light Cultivation.** This term essentially refers to any structures that allow for a combination of natural light and artificial light to be used in the cultivation of cannabis. This is most commonly achieved by cultivating in greenhouses or hoop-houses, although it can be achieved indoors as well, whenever natural light and artificial light are both in use.

Mixed light cultivation allows farmers to utilize natural sunlight (reducing power consumption tremendously), while increasing influence over the growing environment, through the use of supplemental lighting, temperature and humidity controls, more effective pest management and light depravation techniques.

E) **Premises.** This word is an elastic and inclusive term, and does not have one definite and fixed meaning.

Apparently, CDFA is grappling with the idea of whether or not to allow more than one licensed operation, per parcel (or “premises”). I think this dilemma can be solved without even grappling with the definition, per say. I suggest the following:

I. In Humboldt County, they’ve addressed this problem with a unique solution. Parcels of a sufficient size (determined by Local Ordinance), may receive additional Cultivation Permits under the same License. Each of those permits entitles the Licensee to cultivate an additional plot, of the size authorized by the License Type. This could be a good model for the State to adopt, and leave the acreage and zoning details up to local governments.

II. Additionally, CDFA might consider allowing separate Licensees to operate on the same Parcel, so long as such operations are in accordance with local zoning requirements and all Licensees’ operations are in good standing with State and Local Licensing Authorities. This would enable properties well suited for cultivation to operate under multiple Licenses, or to lease out space to more than one Licensee, allowing for consolidations where local authorities deem cannabis industry operations to be appropriately located, without being in conflict with M.C.R.S.A. The City of Arcata has done this already, by creating a unique zoning classification for specific neighborhoods where all cannabis Licensees are required to operate.

F) **Propagate.** While nothing in M.C.R.S.A. prohibits production farms from conducting their own propagation, the plant canopy restrictions contained within each License Category, coupled with the plant canopy requirements for such propagation, provide a cost/benefit disincentive to do so on any large scale. This creates a lucrative marketplace for Type IV
(Nursery) Licensees. The term Propagate refers exclusively to the phase of cannabis farming where new plants are created, and includes the following descriptions and activities:

I. Clone Production. The creation of clones is achieved by cultivating “mother plants” (female plants, each representing specific strains) which are maintained in a vegetative stage of growth at all times. These plants are regularly trimmed back, in order to procure “cuttings” from their branches. The cuttings are then nurtured in special environments that encourage root development. Those that remain alive and develop roots are “immature plants”, and can then be placed into the “vegetative” growth cycle, in order to achieve the size desired by the cannabis producer (or dispensary) where they are to be shipped. Mother plants do not produce any “usable cannabis” under the M.M.P.A.

II. Seed Production. The creation of seeds is achieved by cultivating “mother plants” and “father plants”, each from a particular strain of cannabis. Once the plants have achieved a sufficient amount of vegetative growth, the strongest plants are retained for breeding purposes and are then allowed to achieve the “flowering” stage of growth, where the pollen from specific fathers is selectively applied to various branches on one or more of the mothers, or a plant pair are simply placed together in a controlled environment, where natural pollination occurs. While mother plants are in the “flowering” stage of growth, they transform energy into seed production. The maturation of mother plants is essentially the same process as the maturation of female plants that produce cannabis, with the exception that the flowers of mother plants are completely full of seeds and are not “usable” under the M.M.P.A.

III. Developing New Strains and Seed Banking. The propagation of cannabis also involves longer cultivation processes, in order to develop new strains. This begins with the normal breeding process, where the male and female genetics from different strains are combined in order to produce new strains. Some of the male and female plants from these new strains are then maintained in vegetative growth, for future breeding purposes. Some of the females are then allowed to flower and mature, in order to determine the cannabinoid, terpene and flavonoid contents of their flowers. Some of the males can also allowed to mature, in order to collect their pollen for breeding purposes. Most importantly, some of the female plants that were maintained in vegetative growth can be selected for flowering purposes, or for cloning purposes, if the testing results prove satisfactory.

Seed Banking is also an essential element of cannabis propagation. This involves the creation of new seeds, whether from new strains or from existing strains, specifically for the purpose of long-term storage, for future propagation or production purposes.
IV. “Sexing” the Plants. Whenever production plants are grown from seed, whether for purposes of propagation or cannabis production, there is an additional phase of growth required in order to identify and separate male plants from female plants. This can occur naturally outdoors, as part of the early flowering stage. However, determining the sex of plants grown from seed is more efficiently done indoors or in a mixed light facility. When the seedlings have achieved some of their vegetative growth, they are artificially placed into a flowering stage of growth for 10-14 days, in order to stimulate their sexual development enough to determine which plants are male and which plants are female. The plants are then placed back into the vegetative stage of growth. If the males are not utilized for breeding purposes, they are normally culled at this point.

V. Flowering Plants in Nurseries. The subjects have recently come up about what it means to have flowering plants in a nursery, and whether or not to allow nurseries to produce any cannabis, for testing purposes. Let me address these questions separately, as follows:

a. When mother plants are used for seed propagation purposes, they legally produce no usable cannabis under the M.M.P.A., for all practical purposes. Such flowers are over 90% seed weight, have reduced cannabinoid contents and are generally frowned upon by the industry (it’s unlikely that any dispensary would even consider buying or selling seeded cannabis flowers). However, in order to legally clarify this matter for the purposes of Nursery regulations, CDFA could certainly mandate that flowering plants used for seed production can only be used for that purpose, and that any plant waste materials from mother plants (including the remaining flower components) may only be transported to a Licensed Manufacturer, or to an Authorized Waste Management Facility.

b. The subject has come up, of whether or not to allow Nurseries the ability to grow a small number of plants through the vegetative and flowering stages, for the limited purposes of laboratory testing and free sampling. This would certainly be beneficial on a few fronts, by creating complete laboratory profiles for all strains, allowing market research into every strain (especially new ones), providing quality control mechanisms for the nurseries themselves and improving the effectiveness of cannabis labeling. For all of these reasons, I support the idea. However, in order to reduce the likelihood of Diversion, I suggest that CDFA establish a maximum plant canopy threshold for Flowering Plants at Nurseries, require that such plants must be included within the Track and Trace Program, and require that all cannabis produced by Nurseries can only be used for three purposes: For Laboratory Testing; As free samples to qualified consumers (through Donations to the nursery staff and to any
licensed dispensaries), and; as Donations to any cannabis research projects that are currently approved by the State of California. All such testing and donations should be recorded through the Track and Trace Program.
2) Licensing Application Process and Requirements.

A) **Online vs. Paper.** I think it’s a good idea to provide online applications, provided that you offer the following options:

   I. Make sure all of the fields are easy to fill in and the documents are in formats that are commonly accessible;

   II. Enable the “Print” option for all applications, so that applicants can maintain their own copies;

   III. Do not place time restrictions into the process...rather than being a “live” document, they should all be downloadable, so that applicants can take their time filling them out;

   IV. Provide security measures and assurances to applicants, in accordance with the privacy protections enumerated within M.C.R.S.A.

B) **Weapons and Firearms Ban.** This is a complete non-starter, and should be addressed immediately. The entire premise of this question is completely off-base and without merit. There is absolutely zero risk posed to State enforcement staff by Licensees having legally owned weapons or firearms present at any cultivation site. It defies logic to presume that any person applying for state licensure to cultivate cannabis would pose a physical threat to State enforcement staff, or to anyone else for that matter. All Licensees will have already passed a DOJ criminal background check, as part of their licensing process. And each Licensee will also have a $25,000 Bond, as well as Liability Insurance. So any perceived risk to State enforcement staff (which is baseless and fictional) has already been thoroughly mitigated.

This also brings up the subject of Armed Guards. Would Licensees be prohibited from retaining their services, because the guards are armed? If the answer is “no”, then please explain how the presence of Armed Guards (who are privately contracted and work for the Licensee), poses any less of a “risk to State enforcement staff” than the Licensees and their employees being armed themselves? This also begs the question, why should Licensees be indirectly forced to hire private armed security (by virtue of such a weapons ban), if hiring security is not directly required by CDFA or M.C.R.S.A.? Doing so would artificially raise the costs of legal cannabis production, which directly fuels the Prohibition Market.

Any mandate that prevents Licensees from possessing any legal weapons is essentially an invitation for criminals to commit acts of violence against them. In my 20 years of experience as
an Expert Witness, I have personally observed a longstanding practice by local law enforcement agencies throughout California, in routinely denying police protection to qualified farmers who are subjected to robberies, burglaries and threats of violence. Rather than coming to the victim’s aid, when such acts of violence do occur the common response from law enforcement is to blame the victims and investigate them for “unlawful cultivation”, while letting the perpetrators of violence go completely unscathed. To make matters worse, law enforcement makes************own (through local news outlets) that criminal acts against cannabis farmers will essentially not be investigated. Obviously, the possession of legal weapons and firearms is the only way for Licensees to protect their own lives, and the lives of others, from criminal acts of violence. The remote locations of many cannabis farms only increases this risk, as well as adding the element of dangerous wild animals such as Bears, Mountain Lions, Snakes, Boars and anything with Rabies. Licensees may also have pets or livestock, which also need protection from wild animals.

There are currently no Federal or State laws that would prohibit any licensed cannabis farmer from owning and possessing any legal weapons or firearms. The only legal sanction that can be currently applied against patients who farm cannabis applies only to persons convicted of certain drug felonies, and in those situations, the firearm possession is then added as an “enhancement charge”. But this requires a conviction first, which is completely unrelated to the firearm possession itself. The possession of a legal firearm by any licensed cannabis farmer or qualified patient is simply not a crime, under current statutes. It goes without saying that ************not be subjected to criminal prosecutions for their lic************es (they are exempted under M.C.R.S.A.), so even the idea of an enhancement charge actually becomes moot in regards to Licensees.

Likewise, a recent federal court ruling held that recent administrative rules adopted by the B.A.T.F. regarding firearms dealers can be successfully used to prohibit said dealers from selling guns to anyone who admits to being a “marijuana addict” on their purchase application. This may negatively impact the number of patients willing to apply for State Patient ID Cards, because possession of the card might be cited against an otherwise legal gun purchase. So long as ID Cardholders’ identities remain confidential, this probably won’t become an issue. But regardless, it has absolutely no legal bearing on patients themselves, or their right to possess legal firearms. The ruling applies to firearms dealers only, and not to patients. It most certainly does not apply to State Licensees, whom are never even mentioned or discussed in the court ruling. Simply put, there are no laws against legal gun ownership by qualified patients or Licensees, in the State or Federal arena.
I’ve been instructed that this “weapons ban” idea was promulgated by your Legal Department. There is nothing in the language of M.C.R.S.A. that requires such a weapons ban. Please invite your legal team into this conversation, and ask them to cite their reasons for supporting such a ban. Any insertion of a firearms ban into M.C.R.S.A. is akin to a “gun grab” and would likely subject the program to unnecessary litigation for violating the Second Amendment rights of Licensees. Licensees are completely within their rights to possess any legal weapons available in California, but not limited to legally owned firearms, for any lawful purpose whatsoever.

On the subject of “any weapons”, since anything might be construed as a weapon, this language would open up Pandora’s Box, enabling local code enforcement and law enforcement agents to routinely troll licensed operations, searching for “weapons”. And Licensees would be expected to pay for these inspections. What happens when common household items and farm implements are then misidentified as “weapons”? Who gets to define what a weapon is and isn’t?

I strongly encourage you to not drink the anti-cannabis cool aid in this instance, and implore you to opt out of any unconstitutional “weapons and firearm ban at cultivation sites”. If M.C.R.S.A. requires any language about firearms, I suggest the following:

- “Illegal use of Firearms” means any use of a firearm that is considered illegal under California Law, whether due to the nature of the firearm itself, or to the legal status of the user of the firearm. It does not mean the otherwise legal use of firearms by Licensees or any persons engaged in lawful cannabis related activities, in accordance with the C.U.A., M.M.P.A. and M.C.R.S.A.

C) Non-refundable application processing fees. I plan on submitting applications for 2-3 Cultivation License Types (Type IV, Type III and/or Type II). I’m unsure how many actual locations we’ll be looking at...it depends on local conditions and on the regulations you develop here.
3) License Types, License Combinations, Renewal Process and Fees.

A) License Types. CDFA is considering issuing the same applicant several cultivator licenses, as long as the total production canopy does not exceed 4 acres. The way that M.C.R.S.A. actually reads, it reads like the 2 License limitation applies to any two of the ten possible license types. However, your current understanding of that language is that all cultivation license types are actually one type. If you decide to cement this description into the regulations, I think it would make the program run a lot smoother.

There appears to be no statutory limit to the number of local permits that any given Licensee may possess, under the same License. It would seem that Local Licensing Authorities can establish their own Licensing limits, and nothing in State law seems to prevent any Licensee from establish operations in more than one location or jurisdiction (under the same License), so long as they meet those local requirements. What is your take on this? Can a Licensee use the same license to operate in more than one location or local jurisdiction, so long as they don’t exceed the maximum allowable canopy under State and Local regulations?

Regarding the 4 acre limit, I have a few observations and questions:

I. Consider providing Type IV operations with their own total plant canopy rule, separate from the maximum canopy limits of Production Farms. Nurseries do not produce any usable cannabis. The new 1-acre limit on individual Type IV operations is parallel to the 1-acre limit for Type III operations, so Nurseries could also have their own 4 acre License limit. That way, Type IV Licensees have a maximum plant canopy, and all Type I, Type II and III Licenses have a maximum plant canopy, but Licensees operating both categories would not be unfairly forced to divide the same total canopy between production and propagation.

II. Humboldt County has already established larger operations that 4 acres. According to Humboldt County Code (Section 55.4.8.2.1.1 ), a single applicant may obtain additional cultivation area permits, under the same License, allowing upwards of 12 acres of plant canopy to be cultivated (on parcels of sufficient size). So this issue of total plant canopy should probably be addressed...can a Local Licensing Authority or Ordinance authorize more total plant canopy than M.C.R.S.A. (or CDFA) allows?

III. I thought the 4 acre total canopy limit was already part of M.C.R.S.A. This question about whether it’s a good number or not, implies that it’s negotiable. What is the current legal status of this limit?
IV. Generally speaking, you should not consider setting any artificial limits on supplies, until after you accurately assess the consumer demands.

B) What is Manufacturing? There is a legal distinction between Processing and Manufacturing that’s rooted in the definitions contained within the statutes against marijuana cultivation and manufacturing, respectively. Here is a brief answer to your questions:

I. Rolling joints is neither processing nor manufacturing. It is a form of cannabis use, and nothing more.

II. Dry sieving (to obtain keif / charas) is merely separating...it does not involve concentration or dilution, and is merely a form of Processing, which is legally defined under the definition of Cultivation (processing is legally classified as cultivation). Note: For both legal and practical purposes, cannabis production farms are perfectly suited to produce all dry sieved products (otherwise known as “keif” or “charas”) and sell it to dispensaries. This creates a niche market for licensed cultivators and is in accordance with California’s existing marijuana statutes, including M.C.R.S.A. The dry sieving process does not concentrate any part of the plant and does not meet the legal definition of manufacturing.

III. “Water processing” is a form of Non-Volatile Manufacturing. Non-Volatile Manufacturing includes, but is not limited to: all forms of concentration or solution that utilize extreme temperatures, high pressure, lipids, grain alcohol, vinegar, CO2, isopropyl alcohol, water, or other non-volatile extraction methods. Cannabis Plant Conversions (under the M.M.P.A.) that can be made utilizing non-volatile manufacturing methods include: Edibles, Beverages, Tinctures, Topicals and various forms of Concentrates.

IV. In accordance with People v. Bergen, Volatile Manufacturing Licenses should probably be issued to any manufacturers that use any extremely combustible, flammable or toxic solvents to manufacture cannabis plant conversions. Obviously, these operations will require more stringent regulations. However, the technology exists for such operations to safely manufacture cannabis products, and similar operations produce many commonly used products meant for human consumption today. So it’s perfectly safe for you to regulate volatile manufacturing, as well as non-volatile manufacturing. I can put you in touch with experts on this subject, to assist you with regulating volatile manufacturers.
C) **Cultivation Sizes.** I anticipate applying for as many license types and locations as I am legally and financially able to accommodate, between now and 2018. The likelihood of obtaining any such licenses is partly based on how functional (or dysfunctional) this program becomes.

D) **License Combinations.** There are two discrepancies I would like to point out, in regards to the current language governing the matter of license combinations:

I. It would appear that any Licensee who applies for either a Type IV, or a Type III License, is excluded from holding a license in any other cultivation categories. I recommend this restriction be lifted, so that farmers can choose the best combination of farming licenses to apply for, based on the total allowable plant canopy, local licensing conditions and the existing restriction of holding only 2 license types per applicant. **Note:** If CDFA recognizes that all cultivation license types are in fact one type of License, you’ve already solved half of this problem. All that remains is to allow Type III and Type IV combinations with some of the other License categories, as part of the general 2-category limit.

II. There is also a loophole in the language of Section 19328. While section (a) stipulates that a licensee may only hold licenses in two categories, section (a) (9) stipulates that a 10A Licensee may apply for a type 6 or 7 License, and hold a combination of Type I, Type II, Type III and Type IV Licenses, so long as the total plant canopy does not exceed 4 acres. This language implies that a 10A might hold more than 2 categories of License (because the first license type is already for up to 3 dispensaries, this language regarding combinations suggests the applicant may hold more than one additional category, so long as the maximum canopy is not exceeded). What is CDFA’s position on this subject?

E) **Artificial Lighting Restrictions.** I strongly recommend that you not establish any artificial limits on supplies, until you accurately assess the consumer demands. * 

F) **Type III License Restrictions.** I strongly recommend that you not establish any artificial limits on supplies, until you accurately assess the consumer demands. *

* I have provided CDFA with an expert analysis of California’s likely cannabis production requirements for 2018. Please review this document (see attached), for a detailed explanation regarding the market demands for medical cannabis, including the amounts of cannabis required to manufacture all forms of cannabis plant conversions. Based on my analysis, there may already not be enough supply to meet the legal demands, without any artificial limitations being imposed by the State. Such artificial restrictions will only serve to fuel the prohibition
market, by forcing dispensaries to raise their prices, and by forcing patients to obtain their cannabis from illegal sources.

Any artificial limitations to lighting will directly increase the cost to produce each pound. Likewise, any limitations to the number of Type III Licenses will automatically increase the number of Type I and Type II Licenses required by 4-8 times just to produce the same amounts of cannabis.
4) Possible mitigation requirements re Environmental Health & Public Safety issues.

A) Compliance Agreements to reduce Environmental Impacts. Let’s begin this section with an acknowledgement that the impacts of licensed cannabis cultivation have not been demonstrated to have any negative environmental impacts. According to staff with SWRCB, the current rules relating to water uses for cannabis farming have nothing whatsoever to do with actual water conservation or waste discharges, as they relate to the rules governing commercial agriculture in California. Rather, it is merely because the farms are growing cannabis, that they are being subjected to such draconian regulations. Apparently, this aspect of M.C.R.S.A. was lobbied for heavily by groups with financial interests in cannabis prohibition. This probably needs to be addressed further in upcoming clean-up legislation, and I intend on bringing it to the attention of our Legislators. But in the meantime, I wanted to make sure this information was brought to your attention, as a matter of full disclosure and for reasons of professional integrity.

I think the first answer to this question is that Licensees must already obtain a $25,000 Bond, specifically to ensure that any negative environmental impacts requiring remediation are essentially pre-paid, with the cost of every License. This is already one way that Licensees are reducing any negative environmental impacts. Additionally, any assumed negative impacts to environmental health or public safety should be based on verifiable data or research, and explicitly disclosed by State Licensing Authorities now, before such impacts are presumed to exist within the context of this question.

B) Environmental Protocols. Cannabis farmers are often the most environmentally conscious farmers in California, and we’re always excited to promote Best Farming Practices and other means of reducing our carbon footprint, protecting the environment and mitigating the environmental damage caused by previous generations. To answer your questions:

I. We often recycle cultivation materials.

II. Water timers are almost always used, whether growing indoors, outdoors or under mixed light. This can be achieved automatically, or by hand.

III. Recycling water to feed the cannabis plants is dependent on whether or not it’s been previously used to feed plants with any nutrients, as they would impact the PH and PPM of salts in the water, rendering it unusable for cannabis again, because doing so would lead to root-block. The cannabis water could certainly be recycled
for other uses though (in the rose garden, on the lawn, etc.), as it’s completely harmless.

C) Security Features and Protocols. Here is a list of helpful security features and protocols that licensed cannabis operations could benefit from using. I have personally used all of these, at one time or another.

**Security features for use around sensitive areas of cannabis cultivation, processing, storage, and manufacturing:**

a. Use of security fencing, natural barriers and other visual barriers;
b. Use of motion activated lights and noise alarms;
c. Use of structural modifications and security thresholds at key entryways;
d. Use of security gates, security doors and security bars in windows;
e. Use of police emergency alerts and silent alarms (“panic buttons”);
f. Use of security alarm systems and services;
g. Use of visible and/or hidden camera systems;
h. Use of safes, vaults and other secured storage devices for the storage of all cannabis, money and any confidential or sensitive information;
i. Use of communications equipment on site (2 way radios, earpieces, etc.);
j. Use of security dogs or other animal security features;
k. Use of non-lethal defensive tools by staff;
l. Use of armed security services or armed security staff.

**II) Security Protocols for Licensed cannabis operations:**

a. Use of an Operations Manual that includes a section covering security staffing responsibilities and facility security procedures;
b. Insurance requirements for all facilities and staff (liability, fire, theft, etc.), including crop and product coverage, transportation insurance and bonding for delivery drivers;
c. Provide licensed security training for staff members;
d. Require the use of incident logs and incident reporting procedures;
e. Develop secure cannabis intake and transportation procedures;
f. Compliance with OSHA lighting standards for employee safety and security, and;
g. Implement procedures for allowing employees and contracted individuals into high security areas for day to day work, maintenance and repairs, while excluding non-essential and non-authorized personnel.
D) Nurseries. For more information on this topic, please refer back to #3(F)

I. Please note that there is currently only one description of Nurseries, and they are all what would be considered as “wholesale nurseries”. There are currently no “retail nurseries”, and if there were, they would actually compete with dispensaries and sell plants directly to qualified consumers. Humboldt County has adopted such a model under their Ordinance and Local Licensing Authority.

II. All wholesale nurseries can rightfully sell plants to production farms, as well as to dispensaries. I anticipate there will be more business selling to production farms, based on current guidelines for home cultivation under M.C.R.S.A. (it’s very difficult for patients to grow their own, under the new regulations). I anticipate growing primarily for production farms, but would reserve the right to also provide plants to dispensaries.

III. Nursery sites conduct a great deal of research and development (more so than any production farms and even more than Testing Laboratories, in terms of sheer volume).
5) Cultivator Responsibilities for Compliance Inspection.

A) The Program will specify when Licensees must make their site available for inspection, and requires that the cultivation site be “safe for inspection”. This question then asks us how we intend to make our sites “safe for inspection”. I’m not really sure where you’re going here. There is nothing unsafe about cannabis farms that would require any special measures to be undertaken prior to any inspection. Obviously, if an alarm needs to be disarmed or a door or gate unlocked, this can be achieved in a short amount of time, given proper notice. There’s also the matter of reasonable business hours, and not expecting Licensees to be “on call” for inspections 24/7. So this really depends on how the Program establishes its inspection protocols. In regards to legally possessed firearms, Licensees could certainly be required to display said firearms (unloaded) for investigations by law enforcement, as part of any compliance inspections authorized by the Program under M.C.R.S.A.

B) There should definitely be protocols that are discussed with the industry before they are adopted, delineating things like what days and times the Track and Trace Program is expected to be in full operation, for the purposes of inspections. I assume that the staff availability and training on the part of the Licensees, as well as the staff availability and system operations on the part of the State, will create their own scheduling requirements for the purposes of any official inspections involving the Track and Trace Program. With the exception of Licensed Transporters and Distributors when they’re transporting, Licensees and their staff will have set schedules, and the staffing requirements of most operations management staff to be available on-site during non-business hours.

C) In regards to Records, I’m prepared to provide whatever records the Program requires. I suggest that the Program take into consideration all Federal and State protections in regards to the dissemination of confidential medical, financial and personal records or information, including such provisions as they are covered under M.C.R.S.A. If any confidential information is required by the Program, it should be secured in ways that protect the confidential data, and should not be held onsite in any way that would risk unsecure disclosures or security breaches. This is especially significant as it relates to interactions with certain law enforcement personnel. Both Licensees, and all State and Local Agencies overseeing the Program, have legal responsibilities to protect confidential information. Some in law enforcement (primarily members of so called drug and gang taskforces) could arguably expose Licensees or Program Agents to civil or criminal liabilities, if any confidential or sensitive information were seized under color of law, outside the parameters of this Program.
D) The subject of “who” conducts the inspections has been raised, and the logical answer is that all inspections should be directly overseen by agents of the three primary State Licensing Agencies, and that inspections may only be conducted by agents having data entry responsibilities for the Track and Trace Program, in accordance with M.C.R.L.A. Their counterparts within the Local Licensing Agencies could certainly be part of this inspection process, so long as the Program is directly overseen by the State Licensing Agencies.

It is imperative that the role of Inspections and oversight of the Track and Trace Program not be diverted to State and Local Law Enforcement Agencies, in general. They are not trained or equipped to participate in the Program, and they certainly do not have the resources needed to divert officers away from their roles in protecting public safety and responding to emergencies. While law enforcement agents could certainly accompany Inspectors, as a matter of protocol, their role should be limited to providing inspection security and legal status verification of any firearms maintained by Licensees on site.

Additionally, the role of many California law enforcement agencies within the Prohibition Industry presents a clear conflict of interest for them to have any direct role with License Inspections or oversight of the Track and Trace Program. Any officers working in so called “drug / gang taskforces” have a financial incentive to thwart this Program and to divert its efforts into fueling their own lucrative “eradication efforts”.

E) The cost to oversee Inspections and the Track and Trace Program are already covered within the licensing fee structure and sales tax revenues incorporated within M.C.R.S.A. There should be no additional fees.
6) Track and Trace Requirements.

First, it’s important to distinguish which State and Local Licensing Agencies do, and no not, have direct participation in the Track and Trace Program, in strict accordance with M.C.R.S.A. This would appear to only include C.D.C.A., C.D.F.A., and C.D.P.H. (and possibly B.M.C.R.) at the State Agency level. The Local Agricultural Commissioners should also be included on this list, and possibly the Local Public Health Directors.

Next, in order to properly implement the Track and Trace Program, it’s important to first identify every stage of data input and verification the system will require, and then assess the hardware and software necessary for Licensees to enter the data, and for Inspectors to verify the data.

The “Chain of Title” for this Track and Trace Program consists of the following individual components:

A) Nurseries (Type IV);

Nurseries are a starting point for the Track and Trace Program, having individual plant tags for all mother plants, and having group plant tags for all flats of cuttings, clones and seedlings. The Chain of Title for all plants emanating from Nurseries may only be Transported to Production Farms, Testing Laboratories, Manufacturers, Dispensaries (*including any Donations*), Authorized Medical and Drug Research Facilities or Authorized Waste Management facilities.

Note: Male cannabis plants contain less than .03% THC, and are therefore legally defined as “Hemp”. It is unclear at this time, whether male plants need to be included within the Track and Trace Program. Their ultimate disposition will likely be to Approved Waste Management Facilities, if they are maintained in the system at all.

B) Production Farms (Type I, Type1(A), Type1(B), Type II, Type II(A), Type II(B), Type III, Type III(A) and Type III(B));

Production Farms will most often receive plants from Nurseries. However, nothing in M.C.R.S.A. prevents them from also providing their own plants, even though it might not be cost effective to do so. Therefore, the Track and Trace program should also allow Production farms to be an initial starting point in the system, in the event they chose to produce their own plants.

The Chain of Title for all materials emanating from Production Farms may only be Transported to Testing Laboratories, Manufacturers, Dispensaries (*including any Donations*), Authorized Medical and Drug Research Facilities or Authorized Waste Management facilities.
C) Testing Laboratories (Type 8);

Testing Laboratories will primarily receive cannabis and cannabis plant conversions from Production Farms and Manufacturers, but may also receive cannabis or plant materials from Nurseries. The Chain of Title for all materials being Transported to Testing Laboratories is different from the other links in the chain, because the testing Laboratories do not actually hold the corresponding batches that their samples are derived from. Rather, the laboratory receives samples that correspond to batch numbers, and after those samples have been tested, they are destroyed (on site). The information contained in the test results is then input back into the Track and Trace Program, through the Labeling Process, and can then be used for verification by State and Local Licensing Agencies. This data will also be used by the Production Farms, Nurseries, Manufacturers, Dispensaries and Authorized Medical and Drug Research Facilities from whence the samples originated.

D) Manufacturers (Type 6 and Type 7);

Manufacturers will (purchase or receive) cannabis and plant materials from Nurseries and Production Farms. The Chain of Title for all materials emanating from Manufacturers should only authorize Transportation to Testing Laboratories, Dispensaries (*including any Donations*), Authorized Medical and Drug Research Facilities and Authorized Waste Management Facilities.

E) Authorized Medical and Drug Research Facilities (No License Type at this time);

Authorized Medical and Drug Research Facilities will receive cannabis, plant conversions and plant materials from Nurseries, Production Farms and Manufacturers. They represent one of three possible end-points in the Track and Trace Program, and any cannabis, plant conversions or plant materials they receive should either be used up completely, or if any waste material remains it may be destroyed on-site, or Transported to an Authorized Waste Management Facility. Authorized Medical and Drug Research Facilities would include any programs specifically authorized under M.C.R.S.A., as well as any other programs authorized by the State of California that require the use of cannabis for laboratory testing purposes, or for animal or human testing purposes. The State Licensing Agencies should consider adding a new category of License for research providers, or provide an application process whereby such research providers can become certified by the State and authorized to participate in the Track and Trace Program.
F) **Transporters (Type I2);**

Most transportations of cannabis that involve the transition of cannabis products and materials between licensed operations will be conducted by Transporters (and by Distributors with Transporter Licenses). However, the language of M.C.R.S.A. indicates that Production Farms might also transport cannabis directly to Distributors, and that Nurseries might transport cannabis plants directly to Production Farms. I am unclear at this time if those operations may license their own Transporters to do so, or if such transportation does not require a Licensed Transporter, per se. In either case, the Chain of Title requirements for all such cannabis and cannabis plants being transported, shall include data entry and verification (through the Packaging and Labeling Process) at the point at which the transportation occurs. Transporters must have Shipping manifests for all cannabis and plants being transported.

G) **Distributors (Type I1);**

Distributors are responsible for maintaining secured Storage Facilities, where cannabis and cannabis plant conversions may be warehoused for long periods of time, in accordance with the supply and demand needs of the medical cannabis market. Distributors shall maintain Shipping Manifests for all batches of cannabis and cannabis plant conversions being stored.

Distributors are also responsible for providing Secured Transportation services, either themselves or through retaining a Licensed Transporter.

*Chain of Title requirements for all cannabis and cannabis plant conversions include data entry and verification (through the Packaging and Labeling Process) at every point at which the cannabis changes hands, and during each stage of Transportation. Distributors should have Shipping Manifests for all cannabis and products received, stored, transported and sold.*

H) **Dispensaries (Type I0 and Type I0(A));**

Dispensaries may: purchase cannabis plants from Nurseries; receive donations of cannabis “samples” from Nurseries and Production Farms; purchase cannabis from Production Farms, and; purchase cannabis plant conversions from Manufacturers. Dispensaries represent *one of three possible end-points* in the Track and Trace Program, and any cannabis, plant conversions or plants they receive must be provided to Qualified Consumers. Any remaining waste materials should be Transported to an Authorized Waste Management Facility.

I) * **Authorized Waste Management Facilities (No License Type at this time);**

Authorized Waste Management Facilities represent *one of three possible end-points* in the Track and Trace Program. They should input the dates, varieties and weights / volumes for
every delivery of cannabis, plant conversions, plant materials (and manufacturing waste?) they receive. And they should maintain records verifying the date and manner of all waste they process, which may include hazardous waste transfers to State authorized sites, incineration, composting, recycling (to a Licensed Hemp Producer), and land fill disposals. Authorized Waste Management Facilities include, but are not limited to, composting companies and landfills with compost facilities, incinerators and authorized yard-waste burn facilities, and authorized Hemp Manufacturers. These could be certified through the State and Local Licensing Agencies, and should be included as an “end stage” in the Track and Trace Program for all cannabis plant waste materials produced by Licensed Nurseries and Production Farms that are not sent to Licensed Manufacturers. And they could also receive waste materials from Licensed Manufacturers, depending on their licensing status in regards to hazardous materials storage and transportation. In regards to authorized Hemp Manufacturers, such operations will become available upon the successful implementation of *California Health and safety Code, Section 11018.5*, and such operations will be the logical choice for the disposal of all cannabis stalks and stems, as they are utilized in the production of Hemp. The State Licensing Agencies should consider adding a new category of License for Authorized Waste Management Facilities, or providing an application process whereby such companies can become certified by the State and authorized to participate in the Track and Trace Program.

J) *Authorized Point of Sale Software Companies (No License Type at this time), and;*

These are private companies that only interact with the data system, and do not ever handle cannabis in any way. Point of Sale Software Companies are private sector companies that provide much needed software to the cannabis industry, for the purposes of tracking all inventory and financial transactions (for tax and insurance purposes). In order for these companies to accommodate the Track and Trace Program, the State Licensing Agencies should consider adding a new category of License for such companies, or providing an application process whereby such companies can become certified and authorized by the State to participate in the Track and Trace Program. It’s possible that such companies might even be well suited to assist State Licensing Agencies with developing the Track and Trace Program.

K) *Inspection Agents with the Department of Consumer Affairs, the Department of Food and Agriculture, the Bureau of Medical Cannabis Regulation and the Department of Public Health.*

Once the State and Local Agencies have been identified that will directly participate in the Track and Trace Program, it is essential that the Software and Hardware providers be contracted by the participating Licensing Agencies. Then, the systems must be distributed and installed throughout the state, so that staff training and Beta Testing can occur, well before the 2018 rollout.
* The term “Donations” in 6(A), 6(B), 6(D) and 6(H) refers to: All donations made from Licensed Nurseries that produce cannabis flowers under section 1(F)(V)(b), to their own staff and to Licensed Dispensaries, for the exclusive purpose of providing free samples to qualified consumers; All donations made from Licensed Production Farms to their own staff and to Licensed Dispensaries, for the exclusive purpose of providing free samples to qualified consumers; and; All donations made from Licensed Manufacturers to their own staff and to Licensed Dispensaries, for the exclusive purpose of providing free samples to qualified consumers.

There are several purposes for allowing limited donations. It provides all cannabis producers the ability to conduct market research into every strain of cannabis and every variety of cannabis product (especially new ones). It provides additional quality control mechanisms for cannabis producers, manufacturers and providers. It improves the effectiveness of cannabis labeling, with the inclusion of flavor and potency ratings. It also provides a mechanism to promote new strains and products. And most importantly, it allows the cannabis industry to continue offering limited supplies free cannabis to qualified patients who simply cannot afford to meet their medical needs at retail prices.

All Donations would be entered into the Track and Trace Program, and could also be used for accounting and tax purposes.

If donations are not allowed by C.D.F.A., then the term “Donations” should be removed from all four sections.

L) The Track and Trace Program needs to maintain uniformity between all State and Local Licensing agencies, contracting with one approved software system (with accompanying hardware), that is capable of comprehensively tracking all of this data. The software and hardware should meet the approval of these four State Licensing Agencies, and should also be vetted by cannabis industry experts, before being offered for use. Local Licensing Agencies should be provided with this software and hardware package, once the State has negotiated the contracts, in order to begin testing the system before 2018.

Note: Some Local Cities and Counties may already be reviewing contracts with software companies, for their own tracking purposes. It is imperative that no local jurisdictions enter into any contractual obligations regarding the Track and Trace Program until after the State Licensing Agencies have developed it, in order to prevent confusion and incompatibility between local jurisdictions and the Program.
M) The term “Unique Identifier” essentially refers to bar-coded labeling, with data entry and verification capabilities at every stage of transition between each link of the Chain of Title (A-J). This process should be clarified within the scope of all Packaging and Labeling Requirements under M.C.R.S.A., so that the Track and Trace Program is incorporated within the industry’s packaging and labeling process. These Unique Identifiers should be applied to all individual plants, as well as to batches of immature plants and to batches of all packaged cannabis and plant conversions. All Unique Identifiers shall correspond directly with Samples received by Testing Laboratories, and should be subject to verification through the Track and Trace Program at every stage of a transaction.

N) Batch Numbers. Batch numbers are simply unique identifiers used for groups of things. They should be issued for all Nursery Flats (to be defined) grown at Nurseries and Production Farms. Batch numbers should also be issued for all units of cannabis (to be defined) harvested by Production farms, and for all units of cannabis plant conversions (to be defined) produced by Manufacturers. These respective Batch Numbers should be maintained throughout the Chain of Title process, until the end points at which the cannabis is either provided to the consumer, used for research purposes or destroyed / recycled.

O) In accordance with 1-C, the current outline of Draft Regulations for the Medical Cannabis Cultivation Program should be corrected, in regards to distinctions made in the Track and Trace Program between Immature Plants (requiring Unique Identifiers for Batches of plants) and Vegetative or Flowering Plants (requiring Unique Identifiers for individual plants). The current draft defines this distinction as anything below or above 8 inches in height. This should be changed to the description offered herein. Setting an arbitrary height is completely meaningless, impractical and an enforcement nightmare. Plants meant for outdoor planting are naturally grown larger, at every stage of growth, than their indoor counterparts. An immature plant is immature, regardless of its height. Plants are immature until they have established roots and have been placed into vegetative growth. Their size is completely irrelevant, and has nothing to do with their stage of growth, or the purposes for which they can be used.
7) State License Violations and Appropriate Penalties.

A) Timelines for Transition from M.M.P.A. to M.C.R.S.A. It has become clear from attending these recent public meetings that the cities and counties with local cannabis bans in effect, together with various state and local law enforcement agencies, are preemptively attempting to misrepresent the laws as they relate to this state-wide legal transition. Nothing in M.C.R.S.A. circumvents anything contained within the Compassionate Use Act (and if there were, it would be voided by the Courts). Furthermore, only one small section of the Medical Marijuana Program Act is being redacted as a result of M.C.R.S.A. The rest of it remains quite intact, including the provisions that apply to individual patients and primary caregivers. The redacted section contains language which has been used to justify the formation of the Collectives and Cooperatives that we are familiar with today. Interestingly, removing this section does not prevent any existing Collectives and Cooperatives from applying for Licenses under M.C.R.S.A., and in fact, every Applicant who registers for Priority Status is most certainly a Collective or a Cooperative now. But even more importantly, the legal protections afforded to Collectives and Cooperatives under the M.M.P.A. do not expire until 1 year after the first State Licenses are issued in 2018. This literally means that there is no urgency for State interventions to shut down existing dispensaries and delivery services. Their operations will either transition into Licenses by 2018, or they will face local nuisance abatement actions if they do not. State law literally maintains criminal and civil legal protections for such operations until sometime in 2019!

It is imperative that C.D.F.A. instruct all M.C.R.S.A. Inspection Agents that under C.H.S.C. Section 11362.775(b), the rules governing patient Collectives and Cooperatives are still in effect, until one year after the B.M.M.R. posts a notice on its Internet Website that the licensing authorities have commenced issuing licenses pursuant to the M.C.R.S.A., and that those protections are not legally repealed until then.

B) Misuse of State Resources in Banned Jurisdictions. In every banned jurisdiction (cities and counties with actual or de-facto bans on cannabis cultivation and dispensation), the primary focus of Local representatives at M.C.R.S.A. Regulatory Workshops, has been to inquire about how resources developed by this Program can be siphoned off, to ostensibly target any remaining medical cannabis farms in their jurisdictions with Program licensing violations prior to 2018. These requests present a stark reminder of how public resources are routinely being squandered under the guise of cannabis prohibition, with no regard for the public interest or the rights of landowners, business owners or patients.

It seems clear that the prohibition industry desires to misappropriate the new, public funds generated through M.C.R.S.A., and to misapply the law, in order to “enforce” provisions of
M.C.R.S.A. that do not yet exist, or that simply do not apply to their jurisdictions. If local cities or counties opt to pursue nuisance abatement actions against local patients and farmers, they have their own code enforcement budgets to pay for it, and should not be allowed to appropriate state agents and funding from this Program to do so. In the interests of preventing this waste of public resources, and in preventing enforcement actions that run counter to what M.C.R.S.A. actually states, I suggest that C.D.F.A. Instruct all Licensing agents that your mission and funding only includes assisting in the enforcement of local ordinances within jurisdictions that choose to participate in the Program (or that abdicate to State jurisdiction in this matter). I strongly suggest that you consider withholding all M.C.R.S.A. funding that State and Local Licensing Agencies receive, from being applied in any jurisdictions having effective or de-facto cultivation bans on the books. There are no license applicants in these jurisdictions, by virtue of their opting out of the regulatory framework of M.C.R.S.A. For legal purposes, banned communities have literally outlawed all medical cannabis production within their jurisdictions, placing 100% of their cannabis enforcement budgets outside the purview of State Licensing Agencies. Their own local code enforcement and law enforcement budgets should pay for the enforcement of their bans. The funds from this Program are legally designated for use by State and Local Licensing Agencies, and there are no licensing related enforcement obligations in any city or county where such operations are banned. Doing so places an undue burden on every Licensee, and is effectively a government taking of property (being forced to pay for programs that do not apply to the applicants);

C) Enforcement Protocols. The current language seems more insinuative than instructive.

I. License Violations. Under the current draft regulations, “CDFA will have up to 2 years from the date of any violation within which to bring an administrative action (to suspend or revoke licensure, or any other disciplinary action) for a violation”.

This does not indicate whether or not the act of being investigated itself leads to any sanctions against the Licensee. Is a Licensee expected to halt operations for upwards of two years, any time CDFA is investigating possible violations?

II. Administrative Hold Procedure. This paragraph makes no sense, either by itself, or in combination with the following and preceding sections. It states “to prevent the destruction of evidence, diversion and threats to public safety, cannabis and cannabis products may be placed under a hold. Licensees shall segregate the items on hold so that they are secure.”
There is no mention of when an Administrative Hold Procedure should be initiated. Is it after an investigation has been concluded, and administrative action is taken to discipline the Licensee, or to Suspend or revoke the License? Or, is it during the “up to 2 year investigation” process? And what about the Appeal Process? Once an Appeal has been filed, this should preserve a Licensee’s / Applicant’s rights until a final judgement is rendered.

Once a Hold is placed, Applicants / Licensees are being asked to “segregate” the items on hold, taking them out of production. This is completely unnecessary, considering that all cannabis plants, processed cannabis and cannabis products have Unique Identifiers. This enables CDFA and the other State and Local Licensing Agencies the ability to effectively place a “digital hold” on any products, immediately after they are found to be in violation. This effectively removes such items from the marketplace, without taking them out of the cultivation, processing or manufacturing processes prior to the completion of an investigation.

Holds should only be issued after CDFA has completed an investigation and found a violation.

III. Voluntary Surrender of Cannabis. Here, CDFA contemplates a “procedure allowing Licensee to surrender cannabis or cannabis products prior to the completion of an investigation. The cannabis or cannabis products will be destroyed. Does not waive a Licensee’s right to a hearing.” This language suggests that such surrenders would be 100% voluntary, yet it also does nothing to explain why any cannabis should be surrendered in the first place. Destroying merchandise before the results of a hearing seems to circumvent the hearing process. Additionally, if a Licensee triumphs at the hearing, or at the appeal, and the merchandise was destroyed already, the Licensing Authority that destroyed the property would be civilly liable. And regardless of the “immunity” that Licensing Agencies are bestowed under M.C.R.S.A., this only applies against Licensees. It does not apply against Insurance Companies, and all cannabis plants and cannabis products will undoubtedly be insured.

Voluntary surrender of cannabis should only occur after a Licensee has received a Notice of Violation and either lost or waived an appeal.

IV. Completed Investigations. I suggest that this would be a more appropriate place to require a Hold Order (rather than at the beginning of an investigation). If CDFA has found a violation and assesses the penalty at this stage, it makes more sense to place a Hold on any suspected merchandise at this time.
V. Minor, Moderate and Serious Violations. In order to determine the level of seriousness to attribute to violations, it’s important to consider things like: whether or not the violation was done intentionally; whether or not the violation involves criminal diversion; whether or not the violation constitutes a crime against any person, property or breach of contract; whether or not the violation can be corrected; whether or not the violation caused environmental damage and determining the costs to remediate said damage, etc.

a. It’s also important to distinguish between Applicants and Licensees, and to not confuse them. A Licensee has already established legal privileges under M.C.R.S.A., whereas an Applicant is in the process of securing those legal privileges. When describing both categories of person, the language should read “Applicants or Licensees”. This leaves room for language that identifies situations where their options might end up being be different, even though they are the same right now. It’s also just better language, because each word identifies a different category of person.

b. Minor Violations should include those that occur through no fault of an Applicant or Licensee, and are not the result of willful disregard for the laws. Minor violations should also include those that are the result of potential flaws in The Program, contradictions between State and Local Licensing Authorities, or contradictions between M.C.R.S.A. and the C.U.A., M.M.P.A., or any other Local, State or Federal laws. Minor Violations should result in a Notice of Corrective Action, containing a reasonable timeframe for Applicant / Licensee to correct the problem, and an inspection date for Licensing Agencies to verify the correction. The only fees for a Minor Violation should be to cover the administrative and inspection costs, and should not be punitive in nature.

c. Moderate violations should only result from Applicant’s / Licensee’s willful disregard for the laws. Moderate Violations include any minor violations that are repeated by Applicant / Licensee, after having already concluded an investigation process regarding the same program violation and/or the same plants or merchandise. The investigation process must include: the investigation itself; the initial notice of violation, and; the conclusion or waiver of the appeal. It should be made clear that Local and State Licensing Agencies cannot charge the same activities repeatedly, while an investigation process is taking place, as “separate violations”. Moderate Violations also include any violations that would prevent an Applicant from Obtaining a License, under the statutory requirements contained within the actual language of M.C.R.S.A.

Penalties for Moderate Violations may include punitive fines, in addition to fees levied by Licensing Agencies to cover their administrative and inspection costs.
d. Serious Violations should only result from Applicant’s / Licensee’s willful disregard for the laws. Serious Violations include any major violations that are repeated by Applicant / Licensee, after having already concluded an investigation process regarding the same program violation and/or the same plants or merchandise. The investigation process must include: the investigation itself; the initial notice of violation, and; the conclusion or waiver of the appeal. Serious Violations should also include: Convictions in Criminal or Civil Court for any legal violation included in Business and Professions Code Section 19323(b)(5) (i.e. violations that would prevent an Applicant from being able to obtain a License in the first place); Convictions in Criminal or Civil Court relating to diversions of cannabis from or to the criminal market, and; Any findings of environmental damage caused by Applicant / Licensee, which are not remediated in accordance with the timeframes and processes enumerated within M.C.R.S.A.

Penalties for Serious Violations shall include punitive fines, in addition to fees levied by Licensing Agencies to cover their administrative and inspection costs, and may also include Suspension or Revocation of License. CDFA should develop policies and procedures regarding License Suspensions and License Revocations.

VI. Appeal Process. Because Licensees have 30 days to appeal any violation findings, and CDFA has an additional 14 days after an appeal to issue a decision, it’s important to include a 45 day exemption to any surrender or destruction orders, from the date of the completion of any investigation and issuance of any violation. No surrender or destruction order should be final until the appeal process is exhausted.

D) Catch 22 for all Pre-2018 Applicants. It’s important that you read Section 19323 (b) (8) of the Business and Professions Code, as it relates to the question of license violations and penalties. I suggest that you develop a Transition Protocol and Timeline, and instruct all State and Local Licensing Agencies to follow it. Based on my professional experience, I can predict that many existing (“priority status”) applicants, as well as all “new” applicants, who attempt to put plants in the ground in 2017 will be subject to all manner of scrutiny from various law enforcement, code enforcement and licensing agencies. Many of these agencies may not even be part of the state or local licensing process. Yet, any administrative, civil or criminal sanctions undertaken against an applicant, by any of these agencies, could effectively cause that applicant to be found in violation of Section 19323 (b), and this would allow any Local or State Licensing Authority to deny their application. To restate this problem, any local law enforcement agent or code enforcement agent, or any agent of the numerous state and local licensing authorities, can effectively ruin any applicant’s chances for obtaining a license in 2018, by merely sanctioning that applicant in any way, for the activities they are currently engaged in before
their license is issued. This includes any so-called “investigations”. There is no language contained within MCRSA to prevent this from happening. I therefore suggest that CDFA develop Transition Protocols and Timelines including provisions that:

I) Establish which specific state and local agencies may sanction an Applicant, within this Section, and in accordance with M.C.R.S.A.;

II) Determine what constitutes a Minor Violation, a Moderate Violation and a Serious Violation, and what different sanctions, resolutions and penalties apply to each;

III) Establish a reasonable timeframe to conduct hearings for violations;

IV) Mandate that any sanction must attach to a specific, stated violation of M.C.R.S.A.;

V) Require that every sanction be recorded, noticed and arbitrated in accordance with the provisions of M.C.R.S.A.;

VI) Require that any agent issuing a sanction against an Applicant or Licensee must provide the remedies and timeline that Local or State Licensing Authority requires from applicant / licensee, in order to resolve the violation.
New Items:

8) Carbon Credits for Outdoor Farms.

Cannabis plants sequester measurable amounts of carbon, and they’re also really great Nitrogen fixators. Are there any State or Private programs or partnerships that would allow Licensees to apply and qualify for carbon offset credits or soil remediation funds, now that cannabis farms will finally be able to provide a significant positive impact on carbon sequestration and improving local soil conditions?

9) Renewable Energy Programs for Indoor and Mixed Light Farms.

Many cannabis farmers would like to operate using 100% renewable energies. In fact, at least one Local Licensing Authority (Humboldt County) is actually requiring Licensees to develop such operations. Are there any State or Private programs or partnerships that would allow Licensees to receive any grants, loans, matching funds or tax credits in order to install renewable energy systems?

Conclusion:

This concludes my Public Comments to the California Department of Food and Agriculture. Please review this document, along with the attached “Cannabis Production Requirements for 2018”, as part of your ongoing deliberations, and include them within your Workshop Survey, in regards to the development and implementation of all Cultivation Licensing Regulations under M.C.R.S.A.

I intend on coordinating any important or unresolved matters between State and Local Licensing Agencies, and then taking up such matters as must be addressed through clean-up legislation with the appropriate State Senators and Assemblymen.

I thank you for your time and consideration in these matters. I am available to discuss this all in more detail, in either a voluntary or professional capacity.

Sincerely,
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Calculating California’s MCRSA Cannabis Production Requirements for 2018

By Jason Browne (Expert Witness / Cannabis Industry Consultant)

Greetings,

After having reviewed the ongoing regulatory developments under M.C.R.S.A. at the State and Local levels, it has become clear to me that California’s Licensing Agencies may have no idea what amounts of cannabis the legal consumer market currently requires. This information is crucial in determining the total number and types of cultivation licenses that California should issue (beginning in 2018), as well as the corresponding number of dispensary and manufacturing licenses that State Licensing Authorities will issue. If California’s newly regulated medical cannabis industry is not tasked with providing enough cannabis to accommodate the medical needs of medical consumers, the Medical Cannabis Cultivation Program will actually cause unnecessary diversions to, and from, the criminal market. Due to the De-facto and actual cannabis bans that many local jurisdictions are expected to continue enforcing, it is essential that every local jurisdiction having Licensed Dispensaries be tasked with providing enough cannabis to meet the needs of qualified patients from nearby banned jurisdictions. This will require C.D.F.A. to actively research patient needs and to offer statewide and regional production goals based on those needs. In the interests of fairness to the industry, and in order to ensure the success of M.C.R.S.A., I’m offering you the correct methodology required to determine the aggregate needs of patients’, in order for your agencies to know what ongoing cannabis production requirements really are:

1) Determine # of Qualified Patients in California. According to conservative estimates conducted by California NORML and by independent California cannabis physician specialists, the number of patients who have qualified under the C.U.A. in the past year is around 3 million. This number is probably lower than the actual amount, but it is most certainly not an overestimation, and should prove to be a good starting point for C.D.F.A. to determine California’s current cannabis needs.

2) Determine the methods of delivery employed by patients to consume their cannabis, based on the percentages of cannabis they inhale, consume in edible form, and consume in solution, topical and concentrated forms. While these numbers may be elusive at first, polls of existing dispensaries can provide a window to this information now. For our initial purposes here, until we plug in more detailed information, let’s assume that 1/3 of cannabis is inhaled (smoked or vaporized), around 1/3 of cannabis is used in edible forms (foods and beverages), and around
1/3 of cannabis is used in solutions (tinctures), in concentrated forms (keif and charas, hashish, hash oils and waxes, etc.), and in topical forms (salves, ointments, etc.). This is to show you how to apply the math, and when we have actual figures from dispensaries we can plug those numbers into the equation. But for our purposes here, these numbers are a good starting point. It's likely that this is a low estimate, because more than 1/3 of patients may prefer these other methods to inhaling.

3) Determine the average use patterns of patients, per annum. For this step, we only need to look at the amounts that patients inhale (smoke or vaporize), and we can use this number as our base (for reasons which are explained in #4). Based on research conducted by numerous cannabis physician specialists, the average amount of cannabis consumed by 70% - 80% patients in California, who use inhalation as their primary method of delivery, is 3 pounds of cannabis per year.

Obviously, the availability and price of the cannabis are also factors to consider, but this figure represents how much cannabis patients tend to require for their medical purposes. If they grow it themselves, this is how much they use. Factors such as price and availability are directly related to the success or failure of this Program. The more cannabis produced within the Program, the lower the price will be to consumers, and the more they will be able to purchase their entire supply from Licensed Dispensaries.

Also worth note, only the processed flowers (buds) are counted for purposes of inhalation, as “usable” cannabis under the M.M.P.A. For the purpose of determining amounts of inhaled cannabis, the leaves are not used and their weight does not count here. They are, however, used in the manufacturing process, and can be included for that purpose (see #4).

4) Determine the amounts of raw, dried cannabis required to manufacture the various plant conversions that patients consume. As an Expert Witness, I have firsthand knowledge in this subject. It requires around 4 times the amount of cannabis that a patient would inhale, in order to manufacture a comparable dosage in edible form. Likewise, it requires at least 10 times the amount of cannabis that a patient would inhale, in order to manufacture a comparable dosage in concentrated form, in solution form, or in topical form. It’s worth noting that both the dried leaves and the dried flowers can be used to manufacture cannabis plant conversions.
5) Now apply these figures into a simple calculation, in order to show the aggregate medical needs of all qualified patients in California, for the calendar year 2018:

1 million patients who primarily inhale x 3 pounds per year = 3 million lbs. (buds only)

+ 1 million patients using edibles x 12 pounds per year (3 lbs. x 4 to make) = 12 million lbs.

(The amounts of leaves and flowers produced by cannabis plants is roughly equivalent, so this figure represents 6 million pounds of buds and 6 million pounds of leaves)

+ 1 million patients using solutions, topicals & concentrates (3 lbs. x 10 to make) = 30 million lbs.

(The amounts of leaves and flowers produced by cannabis plants is roughly equivalent, so this figure represents 15 million pounds of buds and 15 million pounds of leaves)

= 45 million pounds of cannabis (24 million pounds of buds and 21 million pounds of leaves)

A more detailed analysis can be provided regarding each different type of manufacturing and the exact ratios between dried plant weight and the equivalent dosages for each product. This figure provides a very basic understanding of this subject, but it’s accurate enough to indicate why any artificial limitations to the number of cultivation licenses (or any other licenses under M.C.R.S.A.) are a bad idea: Because every pound of cannabis represented here that is not produced and sold by licensed operators, will literally incentivize the “prohibition market”.

6) There are other factors to consider, such as: The monthly breakdown of these figures; The amount of time it will take for the industry to ramp up enough to provide cannabis to every patient in California; increases to the qualified patient population, and; policies regarding the secured storage of excess cannabis during times of overabundant supplies, in order to maintain stores in between harvest times, and during times of dwindling supplies. However, these matters will be addressed through adjustments within the market itself, and are not factors requiring any interventions by the State at this time.
Additionally, should California ever legalize cannabis for adult use, the number of consumers will increase dramatically, even though the amounts required by individual recreational users will likely be far less than those of individual patients. If proposition 64 passes in November, the amounts of legal cannabis required in California will become substantially higher.

7) Determine the amounts of cannabis flowers that plants produce. I have over 20,000 hours of experience in the cultivation of cannabis, in all stages of growth and in all mediums. This includes experience with determining the yields of plants, based on methods established by our own federal government (D.E.A.). In outdoor farms, a cannabis plant can produce an average of 1 ounce of flowers per square foot of plant canopy. This takes into account the high end of 2 ounces per square foot, and the low end of ½ ounce per square foot. For indoor farms, this figure only applies if the lighting is equivalent to 100 watts per square foot of plant canopy.*

8) Determine the approximate area of plant canopy required to produce California’s annual supplies of cannabis:

24 million pounds (384,000,000 ounces) / 1 ounce per sq. ft. = 384,000,000 square feet of plant canopy.

9) In order to determine how many licenses, in each category, are required to achieve these results, it will be necessary to calculate the following:

A) How many cities and counties are moving forward with licensing under M.C.R.S.A.? They represent 100% of the cultivation licenses that will be required, in order to produce this amount of cannabis for the entire state patient population.

B) What are reasonable breakdowns for Type 1, Type 2 and Type 3 Licenses, in each of those jurisdictions? Remember, Type 1 farms can produce up to 5000 square feet of plant canopy, Type 2 farms can produce up to 10,000 square feet of canopy, and Type 3 farms can produce up to 43,560 square feet of plant canopy.

C) What is the best equation for issuing cultivation licenses, in conjunction with the number of dispensaries and manufacturers that are licensed, at any given time? This requires the coordination of 3 separate State Licensing Agencies, as well as dialogue with all Local Licensing Agencies.
A very basic breakdown of the number of cultivation licenses required, focusing only on 9(B), and disregarding, for the moment, the unknown factors represented in 9(A) and 9(C), we are left with the following:

Type 1 Licenses Alone = \( \frac{384,000,000}{5000} = 76,800 \) Licenses

Type 2 Licenses Alone = \( \frac{384,000,000}{10,000} = 38,400 \) Licenses

Type 3 Licenses Alone = \( \frac{384,000,000}{43,560} = 8,815 \) Licenses

The actual break-down would be some combination of these three figures. For example, if around 50% of licenses are Type 3, 25% are Type 2 and 25% are Type 1, California will require 4,408 Type 3 farms, 9600 Type 2 farms, and 19,200 Type 1 farms.

These numbers represent the ideal number of licenses that California may require, once the program is completely underway. It may take some time to get to this point, and this is all predicated on a more thorough understanding of actual dispensary sales, and on determining other factors which are unknown at this time, such as those contained in #6, #9A, and #9C.

Even if only 25% of this goal is met in 2018, ramping up additional licenses as the market develops, California would need to issue at least 1100 Type 3 Licenses, 2400 Type 2 Licenses and 4800 Type 1 Licenses, in the first year alone.

**No Artificial Limitations (yet):** Any artificial limitations placed on the number and types of Cultivation, Dispensary and Manufacturing Licenses, enacted without a clear understanding of the subjects I’ve raised herein, will essentially undermine the effectiveness of this Program and will play into the hands of the criminal “prohibition” market. All qualified patients should be able to safely access 100% of their cannabis from Licensed Dispensaries, at affordable prices and in amounts that are sufficient to meet their medical needs.

The regulations and licensing requirements already in place under M.C.R.S.A., combined with the sheer volume of cannabis required by California patients, create a sufficient market barrier to prevent the issuance of “too many” cultivation licenses. If anything, the high demands for cannabis alone may very well outpace the legal supplies available in the market, without any artificial restrictions being placed on the types and numbers of cultivation licenses issued by the C.D.F.A.
The number of parcels available locally for cultivation is restricted further, based on Coastal or Inland designations, Local zoning and acreage requirements and Local limitations on the number of businesses per parcel. There is no identifiable need for State Licensing Agencies to place any artificial limitations on anything right now.

C.D.F.A. should consider the subject of exploring Type 3 License restrictions as an opportunity to advise Local Licensing Agencies what the projected state-wide needs might be. Before Local Licensing Agencies choose to artificially limit the number and types of licenses they issue, it may be a good idea for C.D.F.A. to develop statewide production quotas and to suggest a reasonable combination of cultivation licenses, so that local agencies have enough information to properly develop their own licensing standards. C.D.F.A. could then enter into a partnership with Local Licensing Agencies, in order to ensure that enough cultivation licenses are issued in order to accommodate California’s needs, while allowing local preferences to determine the capacities and locations of operations.

Due to the enormous plant canopy required to produce all of California’s annual medical cannabis supplies, the fewer Type 3 farms that are licensed, then more Type 2 and Type 1 farms will be required. Having a significant number of Type 3 farms will actually reduce the burden of having “too many” smaller farms in any given community, without reducing the State’s overall production quotas. C.D.F.A. could develop high and low thresholds for Type 3 farms, and let Agencies work within that range. If you chose to offer that Type 3 Licenses be limited to 10% - 50% Total Plant Canopy (TPC) in every local jurisdiction. Or, C.D.F.A. could just issue one state-wide standard for all local jurisdictions to follow. In the example above, I reserved 50% of TPC for Type 3 farms, 25% of TPC for Type 2 farms, and 25% of TPC for Type 1 farms. But whatever numbers you choose, utilizing percentages of total plant canopy is the best way to evaluate the # of licenses available in each category.
No Lighting Restrictions: Likewise, C.D.F.A. should not create any artificial restrictions on the amounts of light that indoor and mixed use facilities may use. The primary reason is that doing so directly and artificially limits the amounts of cannabis that a farm can produce, which leads to an artificial increase in the cost to produce each pound. For your information, the amount of indoor lighting required to produce the equivalent to sunlight is 100 watts per square foot of plant canopy, which means that in order to compete with outdoor farms, indoor and mixed use farms should be legally able to approximate or surpass the amount of light available outside. The second reason not to restrict lighting, is that Licensees will pay for it as a cost of business, and it’s their right to use as much electricity as they pay for. Furthermore, many indoor and mixed use farms may ultimately derive all or most of their energy from renewable sources, depending on the development of industry standards, the accessibility of public and private programs to the industry, and Local licensing requirements mandating renewable energy (such as those developed by Humboldt County). For all these reasons, there is no justifiable reason for C.D.F.A. to artificially restrict electrical usage.

I thank you for your time and consideration in this matter. 9/26/2016

Sincerely,

[Name]
(Expert Witness / Cannabis Industry Consultant)

education@fullcirclecannabis.com

p.s. I’m also available to assist State Licensing Agencies with estimating the number of dispensaries California may require in each “green” community, based on the patient populations from surrounding “banned” jurisdictions.
I noticed that my email earlier this week did not include the "peir" email address. I have made a few editorial revisions, and am including both the WQord and PDF versions of these documents, to provide better access if you would like to use any of the language.

Please review both of these attached documents and include them within your discussions regarding the Medical Cannabis Cultivation Program. These documents include complete answers to all of the questions that CDFA and CDPH have posed through your workshop surveys thus far. Please share them as you will, and use them to facilitate the success of the Program. Feel free to contact me if you have any questions.

Sincerely,

Jason Browne (Expert Witness / Cannabis Industry Consultant)

530-528-0215 (office) / 530-736-6801 (cell)
Attention: California Department of Food and Agriculture

Amber Morris (C.D.F.A.), California Department of Public Health, Monica Wagner (D.D.P.H.)

C.c.: Senator Mike McGuire, Senator Rob Bonta, Assemblyman Jim Wood,

Regarding: Proposed Regulations for Cannabis Cultivation Licensing in 2018

From: [Redacted] (Expert Witness / Cannabis Industry Consultant)

Greetings,

After having reviewed the C.D.F.A. website and workshop survey, my partner and I were pleased to attend two of your recent public workshops. We’ve prepared a complete analysis of the questions and issues that you’ve raised so far regarding development of the Medical Cannabis Cultivation Program, for your review and consideration. The answers appear in the exact order they are presented in the survey, followed with some new subjects at the end.

I’ll begin with a brief concern, which stems from the realization that none of the private consultants that we met at your meetings seemed to know anything about the cannabis industry. They were all very helpful in terms of gathering information, and the meetings were organized and very inviting to the public. But so far, it appears as though CDFA has not considered retaining cannabis industry consultants and experts, and is instead relying on our participation through these public meetings (sitting on the sidelines, as it were).

The information contained herein effectively answers the questions presented in your workshop survey, and will also serve to explain many things which CDFA has yet to ask, or may have previously been unaware. This document is separated into relevant topics, for your convenience, and is intended to provide enough information to successfully begin the task of implementing this Program. I intend on following up with all Licensing Agencies and State Legislators, in order to facilitate better regulations and suggest potential “clean up” language in M.C.R.S.A. by 2018.

I have 20 years of experience with the cannabis industry, and my experiences include serving as an Expert Witness to the Courts. If your agency decides to retain consultants with actual industry experience, I have a current W-9 and a Vendor Number with Sacramento County, am available as an independent contractor and would like to help.

Sincerely,

Jason Browne (530-528-0215 / 530-736-6801)

education@fullcirclecannabis.com
1) Definitions of terms.

A) **Canopy.** Plant canopy is defined as the area shaded by the plant’s leaves, and the area of the leaves themselves. The plant canopy directly determines the plant’s ability to absorb light energy, and is one primary factor used in the equation required to determine the probable yield of any given plant (with the other primary factor being the amount of available light itself, in Lumens).

Cannabis plants continue their radial outward growth until about 1/3 way through their flowering stage. After which point, the plants cease growing completely and dedicate 100% of their energy to completing their flower (or seed) production. Therefore, the time to measure a plant in order to determine its final canopy is when it’s 1/3 of the way into flowering.

In order to ensure uniformity in the application of this term, the measurements should always refer to “feet” or “square feet”. The area of a plant is determined by first measuring its diameter, then dividing that by 2 in order to determine its radius, then applying the calculation $A = \pi r^2$.

**Note:** While there is no “statutory definition” of plant canopy, there are well established, scientific agricultural practices regarding this subject, and I must point out that it is no different for cannabis than any other plant. For the purposes of the discussion regarding whether to include the entire grow space, or to measure the plants individually, I have three suggestions:

**I.** Allow applicants to choose either method, based on their growing techniques (not all farms grow cannabis in “rows”). If farmers choose the “individual plants” option, provide them with within the Track and Trace Program for them to record and verify the individual plant measurements;

**II.** For applicants who choose the “grow area” option, in order to not misidentify the space required for walkways in between the rows of plants as being part of the plant canopy (which it most certainly is not), simply allow farmers to measure each individual row’s plant canopy and then add all of the rows together to establish the total. This data can likewise be recorded and verified through a Track and Trace Program;

**III.** Likewise, the total area used to cultivate cannabis will naturally include other non-producing areas, including: storage areas for equipment and supplies; work spaces for on-site processing and handling; staging areas for plant quarantines and pest management; crew breakrooms and restrooms; and even extra space to
accommodate Security Features and Local Setback requirements (which vary between jurisdictions). Therefore, any rules which include these areas, or the walkways discussed above, within the total “area” of allowable cultivation will artificially decrease the space allowed for actual plant canopy, and thus reduce the possible yields from the cannabis plants. The term “plant canopy” should not be incorrectly used to include these spaces, as part of the total area allowed under each category (i.e. 2500 sq. ft., 5000 sq. ft., 10,000 sq. ft., 22,000 sq. ft. and 43,560 sq. ft. / 1 acre, respectively).

B) Flowering. I suggest that you also include the word “mature”, if you mean to contrast the description with your next word, “immature”. For the purposes of M.C.R.S.A., “flowering” and “mature” do not share the same meaning.

While cannabis plants are in the “flowering” stage of growth, they transform energy into flower (or seed) production. In the northern hemisphere, flower production begins in outdoor plants mid-way between the Summer Solstice and the Autumn Equinox, on or around August 1.

Contrary to popular belief, the flowering process in cannabis is actually triggered by the hours of total darkness, not by the hours of available light. Note: Any artificial lights (security, etc.) aimed at cannabis plants at night will interrupt and damage the flowering process, with the exception of bulbs that emit spectrums of light the plants cannot “see” (green bulbs, etc.).

For indoor farming, flowering begins when the total darkness increases from the vegetative growing phase (of 6-8 hours per day), to the flowering phase (of around 12 hours per day). With indoor farming, the frequency of light also changes, from more of the Blue Spectrum during vegetative growth, to more of the Red Spectrum during flowering.

The duration of flowering until the plants are mature depends entirely on the strains of cannabis being grown, and lasts between 5 weeks and 12 weeks, accordingly.

Only the flowering cannabis plants produce any “usable cannabis”, as that term is defined under the M.M.P.A. “Usable cannabis” means the dried, processed, mature female cannabis flowers (excepting mother plants producing seeds, which are not “usable” under the M.M.P.A.).

“Mature” simply means the end of the flowering phase, when the plant is finished producing flowers and is ready to harvest. This is true for all agricultural crops, and is no different with cannabis.

C) Immature. This term is tricky, because it has an agricultural meaning that may differ from its practical meaning under M.C.R.S.A.
For our purposes here, let us assume a Third Term that describes the phase of growth in between “immature” and “mature”. Let us call that phase of growth “vegetative”. This language is already found within the C.U.A. and the M.M.P.A.

Cannabis plants are considered to be immature throughout the entire processes of sprouting (from seeds) and cloning (from cuttings). All the plants produced in Type IV Nurseries are initially considered to be “immature” (excluding any “mother” and “father” plants used for breeding and propagation purposes), until such time as they enter a vegetative stage of growth. While cannabis plants are in the “immature” stage of growth, they transform energy into root production.

Note: The current outline of Draft Regulations for the Medical Cannabis Cultivation Program should be corrected, in regards to distinctions made in the Track and Trace Program between Immature Plants (requiring Unique Identifiers for Batches of plants) and Vegetative or Flowering Plants (requiring Unique Identifiers for individual plants). The current draft defines this distinction as anything below or above 8 inches in height. This should be changed to the description offered herein. Setting an arbitrary height is completely meaningless, impractical and non-enforceable. Plants are immature until they have established roots and have been placed into vegetative growth. Their size is completely irrelevant, and has nothing to do with their stage of growth, or the purposes for which they can be used.

Immature cannabis plants do not produce any “usable cannabis”, as that term is defined under M.M.P.A. However, the plant waste from freshly culled immature cannabis plants will be used to process or manufacture certain cannabis plant conversions, as the young plants have unique medicinal properties. This should be allowed to continue under M.C.R.S.A., within the Track and Trace Program (whereby the clones or seedlings can be directly transported to the manufacturers).

“Vegetative” is the phase of growth in between “immature” and “flowering”. This term is utilized in the M.M.P.A., for the purpose of determining the number of plants a patient may begin cultivating for his or her own medicinal purposes (12 plants), in contrast to the number of flowering plants that patient may harvest (6 plants).

Vegetative cannabis plants do not produce any “usable” cannabis, as that term is defined under the M.M.P.A. While the plant waste (leaves) produced from vegetative plants can still be used to process or manufacture a variety of cannabis plant conversions, it is those conversions which are measured or weighed to determine dosages, not the plant waste itself. While cannabis plants are in the “vegetative” stage of growth, they transform energy into stem and leaf production, and radial outward growth.
D) Mixed Light Cultivation. This term essentially refers to any structures that allow for a combination of natural light and artificial light to be used in the cultivation of cannabis. This is most commonly achieved by cultivating in greenhouses or hoop-houses, although it can be achieved indoors as well, whenever natural light and artificial light are both in use.

Mixed light cultivation allows farmers to utilize natural sunlight (reducing power consumption tremendously), while increasing influence over the growing environment, through the use of supplemental lighting, temperature and humidity controls, more effective pest management and light depravation techniques.

E) Premises. This word is an elastic and inclusive term, and does not have one definite and fixed meaning.

Apparently, CDFA is grappling with the idea of whether or not to allow more than one licensed operation, per parcel (or “premises”). I think this dilemma can be solved without even grappling with the definition, per say. I suggest the following:

I. In Humboldt County, they’ve addressed this problem with a unique solution. Parcels of a sufficient size (determined by Local Ordinance), may receive additional Cultivation Permits under the same License. Each of those permits entitles the Licensee to cultivate an additional plot, of the size authorized by the License Type. This could be a good model for the State to adopt, and leave the acreage and zoning details up to local governments.

II. Additionally, CDFA might consider allowing separate Licensees to operate on the same Parcel, so long as such operations are in accordance with local zoning requirements and all Licensees’ operations are in good standing with State and Local Licensing Authorities. This would enable properties well suited for cultivation to operate under multiple Licenses, or to lease out space to more than one Licensee, allowing for consolidations where local authorities deem cannabis industry operations to be appropriately located, without being in conflict with M.C.R.S.A. The City of Arcata has done this already, by creating a unique zoning classification for specific neighborhoods where all cannabis Licensees are required to operate.

F) Propagate. While nothing in M.C.R.S.A. prohibits production farms from conducting their own propagation, the plant canopy restrictions contained within each License Category, coupled with the plant canopy requirements for such propagation, provide a cost/benefit disincentive to do so on any large scale. This creates a lucrative marketplace for Type IV
(Nursery) Licensees. The term Propagate refers exclusively to the phase of cannabis farming where new plants are created, and includes the following descriptions and activities:

I. Clone Production. The creation of clones is achieved by cultivating “mother plants” (female plants, each representing specific strains) which are maintained in a vegetative stage of growth at all times. These plants are regularly trimmed back, in order to procure “cuttings” from their branches. The cuttings are then nurtured in special environments that encourage root development. Those that remain alive and develop roots are “immature plants”, and can then be placed into the “vegetative” growth cycle, in order to achieve the size desired by the cannabis producer (or dispensary) where they are to be shipped. Mother plants do not produce any “usable cannabis” under the M.M.P.A.

II. Seed Production. The creation of seeds is achieved by cultivating “mother plants” and “father plants”, each from a particular strain of cannabis. Once the plants have achieved a sufficient amount of vegetative growth, the strongest plants are retained for breeding purposes and are then allowed to achieve the “flowering” stage of growth, where the pollen from specific fathers is selectively applied to various branches on one or more of the mothers, or a plant pair are simply placed together in a controlled environment, where natural pollination occurs. While mother plants are in the “flowering” stage of growth, they transform energy into seed production. The maturation of mother plants is essentially the same process as the maturation of female plants that produce cannabis, with the exception that the flowers of mother plants are completely full of seeds and are not “usable” under the M.M.P.A.

III. Developing New Strains and Seed Banking. The propagation of cannabis also involves longer cultivation processes, in order to develop new strains. This begins with the normal breeding process, where the male and female genetics from different strains are combined in order to produce new strains. Some of the male and female plants from these new strains are then maintained in vegetative growth, for future breeding purposes. Some of the females are then allowed to flower and mature, in order to determine the cannabinoid, terpene and flavonoid contents of their flowers. Some of the males can also allowed to mature, in order to collect their pollen for breeding purposes. Most importantly, some of the female plants that were maintained in vegetative growth can be selected for flowering purposes, or for cloning purposes, if the testing results prove satisfactory.

Seed Banking is also an essential element of cannabis propagation. This involves the creation of new seeds, whether from new strains or from existing strains, specifically for the purpose of long-term storage, for future propagation or production purposes.
IV. “Sexing” the Plants. Whenever production plants are grown from seed, whether for purposes of propagation or cannabis production, there is an additional phase of growth required in order to identify and separate male plants from female plants. This can occur naturally outdoors, as part of the early flowering stage. However, determining the sex of plants grown from seed is more efficiently done indoors or in a mixed light facility. When the seedlings have achieved some of their vegetative growth, they are artificially placed into a flowering stage of growth for 10-14 days, in order to stimulate their sexual development enough to determine which plants are male and which plants are female. The plants are then placed back into the vegetative stage of growth. If the males are not utilized for breeding purposes, they are normally culled at this point.

V. Flowering Plants in Nurseries. The subjects have recently come up about what it means to have flowering plants in a nursery, and whether or not to allow nurseries to produce any cannabis, for testing purposes. Let me address these questions separately, as follows:

a. When mother plants are used for seed propagation purposes, they legally produce no usable cannabis under the M.M.P.A., for all practical purposes. Such flowers are over 90% seed weight, have reduced cannabinoid contents and are generally frowned upon by the industry (it’s unlikely that any dispensary would even consider buying or selling seeded cannabis flowers). However, in order to legally clarify this matter for the purposes of Nursery regulations, CDFA could certainly mandate that flowering plants used for seed production can only be used for that purpose, and that any plant waste materials from mother plants (including the remaining flower components) may only be transported to a Licensed Manufacturer, or to an Authorized Waste Management Facility.

b. The subject has come up, of whether or not to allow Nurseries the ability to grow a small number of plants through the vegetative and flowering stages, for the limited purposes of laboratory testing and free sampling. This would certainly be beneficial on a few fronts, by creating complete laboratory profiles for all strains, allowing market research into every strain (especially new ones), providing quality control mechanisms for the nurseries themselves and improving the effectiveness of cannabis labeling. For all of these reasons, I support the idea. However, in order to reduce the likelihood of Diversion, I suggest that CDFA establish a maximum plant canopy threshold for Flowering Plants at Nurseries, require that such plants must be included within the Track and Trace Program, and require that all cannabis produced by Nurseries can only be used for three purposes: For Laboratory Testing; As free samples to qualified consumers (through Donations to the nursery staff and to any
licensed dispensaries), and; as Donations to any cannabis research projects that are currently approved by the State of California. All such testing and donations should be recorded through the Track and Trace Program.
2) Licensing Application Process and Requirements.

A) Online vs. Paper. I think it’s a good idea to provide online applications, provided that you offer the following options:

   I. Make sure all of the fields are easy to fill in and the documents are in formats that are commonly accessible;

   II. Enable the “Print” option for all applications, so that applicants can maintain their own copies;

   III. Do not place time restrictions into the process...rather than being a “live” document, they should all be downloadable, so that applicants can take their time filling them out;

   IV. Provide security measures and assurances to applicants, in accordance with the privacy protections enumerated within M.C.R.S.A.

B) Weapons and Firearms Ban. This is a complete non-starter, and should be addressed immediately. The entire premise of this question is completely off-base and without merit. There is absolutely zero risk posed to State enforcement staff by Licensees having legally owned weapons or firearms present at any cultivation site. It defies logic to presume that any person applying for state licensure to cultivate cannabis would pose a physical threat to State enforcement staff, or to anyone else for that matter. All Licensees will have already passed a DOJ criminal background check, as part of their licensing process. And each Licensee will also have a $25,000 Bond, as well as Liability Insurance. So any perceived risk to State enforcement staff (which is baseless and fictional) has already been thoroughly mitigated.

This also brings up the subject of Armed Guards. Would Licensees be prohibited from retaining their services, because the guards are armed? If the answer is “no”, then please explain how the presence of Armed Guards (who are privately contracted and work for the Licensee), poses any less of a “risk to State enforcement staff” than the Licensees and their employees being armed themselves? This also begs the question, why should Licensees be indirectly forced to hire private armed security (by virtue of such a weapons ban), if hiring security is not directly required by CDFA or M.C.R.S.A.? Doing so would artificially raise the costs of legal cannabis production, which directly fuels the Prohibition Market.

Any mandate that prevents Licensees from possessing any legal weapons is essentially an invitation for criminals to commit acts of violence against them. In my 20 years of experience as
an Expert Witness, I have personally observed a longstanding practice by local law enforcement agencies throughout California, in routinely denying police protection to qualified farmers who are subjected to robberies, burglaries and threats of violence. Rather than coming to the victim’s aid, when such acts of violence do occur the common response from law enforcement is to blame the victims and investigate them for “unlawful cultivation”, while letting the perpetrators of violence go completely unscathed. To make matters worse, law enforcement makes known (through local news outlets) that criminal acts against cannabis farmers will essentially not be investigated. Obviously, the possession of legal weapons and firearms is the only way for Licensees to protect their own lives, and the lives of others, from criminal acts of violence. The remote locations of many cannabis farms only increases this risk, as well as adding the element of dangerous wild animals such as Bears, Mountain Lions, Snakes, Boars and anything with Rabies. Licensees may also have pets or livestock, which also need protection from wild animals.

There are currently no Federal or State laws that would prohibit any licensed cannabis farmer from owning and possessing any legal weapons or firearms. The only legal sanction that can be currently applied against patients who farm cannabis applies only to persons convicted of certain drug felonies, and in those situations, the firearm possession is then added as an “enhancement charge”. But this requires a conviction first, which is completely unrelated to the firearm possession itself. The possession of a legal firearm by any licensed cannabis farmer or qualified patient is simply not a crime, under current statutes. It goes without saying that not be subjected to criminal prosecutions for their licensees (they are exempted under M.C.R.S.A.), so even the idea of an enhancement charge actually becomes moot in regards to Licensees.

Likewise, a recent federal court ruling held that recent administrative rules adopted by the B.A.T.F. regarding firearms dealers can be successfully used to prohibit said dealers from selling guns to anyone who admits to being a “marijuana addict” on their purchase application. This may negatively impact the number of patients willing to apply for State Patient ID Cards, because possession of the card might be cited against an otherwise legal gun purchase. So long as ID Cardholders’ identities remain confidential, this probably won’t become an issue. But regardless, it has absolutely no legal bearing on patients themselves, or their right to possess legal firearms. The ruling applies to firearms dealers only, and not to patients. It most certainly does not apply to State Licensees, whom are never even mentioned or discussed in the court ruling. Simply put, there are no laws against legal gun ownership by qualified patients or Licensees, in the State or Federal arena.
I’ve been instructed that this “weapons ban” idea was promulgated by your Legal Department. There is nothing in the language of M.C.R.S.A. that requires such a weapons ban. Please invite your legal team into this conversation, and ask them to cite their reasons for supporting such a ban. Any insertion of a firearms ban into M.C.R.S.A. is akin to a “gun grab” and would likely subject the program to unnecessary litigation for violating the Second Amendment rights of Licensees. Licensees are completely within their rights to possess any legal weapons available in California, but not limited to legally owned firearms, for any lawful purpose whatsoever.

On the subject of “any weapons”, since anything might be construed as a weapon, this language would open up Pandora’s Box, enabling local code enforcement and law enforcement agents to routinely troll licensed operations, searching for “weapons”. And Licensees would be expected to pay for these inspections. What happens when common household items and farm implements are then misidentified as “weapons”? Who gets to define what a weapon is and isn’t?

I strongly encourage you to not drink the anti-cannabis cool aid in this instance, and implore you to opt out of any unconstitutional “weapons and firearm ban at cultivation sites”. If M.C.R.S.A. requires any language about firearms, I suggest the following:

- “Illegal use of Firearms” means any use of a firearm that is considered illegal under California Law, whether due to the nature of the firearm itself, or to the legal status of user of the firearm. It does not mean the otherwise legal use of a firearm by a Licensees or any persons engaged in lawful cannabis related activities, in accordance with the C.U.A., M.M.P.A. and M.C.R.S.A.

C) Non-refundable application processing fees. I plan on submitting applications for 2-3 Cultivation License Types (Type IV, Type III and/or Type II). I’m unsure how many actual locations we’ll be looking at…it depends on local conditions and on the regulations you develop here.
3) License Types, License Combinations, Renewal Process and Fees.

A) License Types. CDFA is considering issuing the same applicant several cultivator licenses, as long as the total production canopy does not exceed 4 acres. The way that M.C.R.S.A. actually reads, it reads like the 2 License limitation applies to any two of the ten possible license types. However, your current understanding of that language is that all cultivation license types are actually one type. If you decide to cement this description into the regulations, I think it would make the program run a lot smoother.

There appears to be no statutory limit to the number of local permits that any given Licensee may possess, under the same License. It would seem that Local Licensing Authorities can establishing their own Licensing limits, and nothing in State law seems to prevent any Licensee from establish operations in more than one location or jurisdiction (under the same License), so long as they meet those local requirements. What is your take on this? Can a Licensee use the same license to operate in more than one location or local jurisdiction, so long as they don’t exceed the maximum allowable canopy under State and Local regulations?

Regarding the 4 acre limit, I have a few observations and questions:

I. Consider providing Type IV operations with their own total plant canopy rule, separate from the maximum canopy limits of Production Farms. Nurseries do not produce any usable cannabis. The new 1-acre limit on individual Type IV operations is parallel to the 1-acre limit for Type III operations, so maybe Nurseries could also have their own 4 acre License limit. That way, Type IV Licensees have a maximum plant canopy, and all Type I, Type II and III Licenses have a maximum plant canopy, but Licensees operating both categories would not be unfairly forced to divide the same total canopy between production and propagation.

II. Humboldt County has already established larger operations that 4 acres. According to Humboldt County Code (Section 55.4.8.2.1.1.), a single applicant may obtain additional cultivation area permits, under the same License, allowing upwards of 12 acres of plant canopy to be cultivated (on parcels of sufficient size). So this issue of total plant canopy should probably be addressed...can a Local Licensing Authority or Ordinance authorize more total plant canopy than M.C.R.S.A. (or CDFA) allows?

III. I thought the 4 acre total canopy limit was already part of M.C.R.S.A. This question about whether it’s a good number or not, implies that it’s negotiable. What is the current legal status of this limit?
IV. Generally speaking, you should not consider setting any artificial limits on supplies, until after you accurately assess the consumer demands.

B) What is Manufacturing? There is a legal distinction between Processing and Manufacturing that’s rooted in the definitions contained within the statutes against marijuana cultivation and manufacturing, respectively. Here is a brief answer to your questions:

I. Rolling joints is neither processing nor manufacturing. It is a form of cannabis use, and nothing more.

II. Dry sieving (to obtain keif / charas) is merely separating...it does not involve concentration or dilution, and is merely a form of Processing, which is legally defined under the definition of Cultivation (processing is legally classified as cultivation).

Note: For both legal and practical purposes, cannabis production farms are perfectly suited to produce all dry sieved products (otherwise known as “keif” or “charas”) and sell it to dispensaries. This creates a niche market for licensed cultivators and is in accordance with California’s existing marijuana statutes, including M.C.R.S.A. The dry sieving process does not concentrate any part of the plant and does not meet the legal definition of manufacturing.

III. “Water processing” is a form of Non-Volatile Manufacturing. Non-Volatile Manufacturing includes, but is not limited to: all forms of concentration or solution that utilize extreme temperatures, high pressure, lipids, grain alcohol, vinegar, CO2, isopropyl alcohol, water, or other non-volatile extraction methods. Cannabis Plant Conversions (under the M.M.P.A.) that can be made utilizing non-volatile manufacturing methods include: Edibles, Beverages, Tinctures, Topicals and various forms of Concentrates.

IV. In accordance with People v. Bergen, Volatile Manufacturing Licenses should probably be issued to any manufacturers that use any extremely combustible, flammable or toxic solvents to manufacture cannabis plant conversions. Obviously, these operations will require more stringent regulations. However, the technology exists for such operations to safely manufacture cannabis products, and similar operations produce many commonly used products meant for human consumption today. So it’s perfectly safe for you to regulate volatile manufacturing, as well as non-volatile manufacturing. I can put you in touch with experts on this subject, to assist you with regulating volatile manufacturers.
C) Cultivation Sizes. I anticipate applying for as many license types and locations as I am legally and financially able to accommodate, between now and 2018. The likelihood of obtaining any such licenses is partly based on how functional (or dysfunctional) this program becomes.

D) License Combinations. There are two discrepancies I would like to point out, in regards to the current language governing the matter of license combinations:

I. It would appear that any Licensee who applies for either a Type IV, or a Type III License, is excluded from holding a license in any other cultivation categories. I recommend this restriction be lifted, so that farmers can choose the best combination of farming licenses to apply for, based on the total allowable plant canopy, local licensing conditions and the existing restriction of holding only 2 license types per applicant. Note: If CDFA recognizes that all cultivation license types are in fact one type of License, you’ve already solved half of this problem. All that remains is to allow Type III and Type IV combinations with some of the other License categories, as part of the general 2-category limit.

II. There is also a loophole in the language of Section 19328. While section (a) stipulates that a licensee may only hold licenses in two categories, section (a) (9) stipulates that a 10A Licensee may apply for a type 6 or 7 License, and hold a combination of Type I, Type II, Type III and Type IV Licenses, so long as the total plant canopy does not exceed 4 acres. This language implies that a 10A might hold more than 2 categories of License (because the first license type is already for up to 3 dispensaries, this language regarding combinations suggests the applicant may hold more than one additional category, so long as the maximum canopy is not exceeded). What is CDFA’s position on this subject?

E) Artificial Lighting Restrictions. I strongly recommend that you not establish any artificial limits on supplies, until you accurately assess the consumer demands.

F) Type III License Restrictions. I strongly recommend that you not establish any artificial limits on supplies, until you accurately assess the consumer demands.

* I have provided CDFA with an expert analysis of California’s likely cannabis production requirements for 2018. Please review this document (see attached), for a detailed explanation regarding the market demands for medical cannabis, including the amounts of cannabis required to manufacture all forms of cannabis plant conversions. Based on my analysis, there may already not be enough supply to meet the legal demands, without any artificial limitations being imposed by the State. Such artificial restrictions will only serve to fuel the prohibition...
market, by forcing dispensaries to raise their prices, and by forcing patients to obtain their cannabis from illegal sources.

Any artificial limitations to lighting will directly increase the cost to produce each pound. Likewise, any limitations to the number of Type III Licenses will automatically increase the number of Type I and Type II Licenses required by 4-8 times just to produce the same amounts of cannabis.
4) Possible mitigation requirements re Environmental Health & Public Safety issues.

A) Compliance Agreements to reduce Environmental Impacts. Let’s begin this section with an acknowledgement that the impacts of licensed cannabis cultivation have not been demonstrated to have any negative environmental impacts. According to staff with SWRCB, the current regulations relating to water uses for cannabis farming have nothing whatsoever to do with actual water conservation or waste discharges, as they relate to the rules governing commercial agriculture in California. Rather, it is merely because the farms are growing cannabis, that they are being subjected to such draconian regulations. Apparently, this aspect of M.C.R.S.A. was lobbied for heavily by groups with financial interests in cannabis prohibition. This probably needs to be addressed further in upcoming clean-up legislation, and I intend on bringing it to the attention of our Legislators. But in the meantime, I wanted to make sure this information was brought to your attention, as a matter of full disclosure and for reasons of professional integrity.

I think the first answer to this question is that Licensees must already obtain a $25,000 Bond, specifically to ensure that any negative environmental impacts requiring remediation are essentially pre-paid, with the cost of every License. This is already one way that Licensees are reducing any negative environmental impacts. Additionally, any assumed negative impacts to environmental health or public safety should be based on verifiable data or research, and not presumptively disclosed by State Licensing Authorities now, because impacts are presumed to exist within the context of this question.

B) Environmental Protocols. Cannabis farmers are often the most environmentally conscious farmers in California, and we’re always excited to promote Best Farming Practices and other means of reducing our carbon footprint, protecting the environment and mitigating the environmental damage caused by previous generations. To answer your questions:

I. We often recycle cultivation materials.

II. Water timers are almost always used, whether growing indoors, outdoors or under mixed light. This can be achieved automatically, or by hand.

III. Recycling water to feed the cannabis plants is dependent on whether or not it’s been previously used to feed plants with any nutrients, as that would impact the PH and PPM of salts in the water, rendering it unusable for cannabis again, because doing so would lead to root-block. The cannabis water could certainly be recycled...
for other uses though (in the rose garden, on the lawn, etc.), as it’s completely harmless.

C) Security Features and Protocols. Here is a list of helpful security features and protocols that licensed cannabis operations could benefit from using. I have personally used all of these, at one time or another.

**Features for use around sensitive areas of cannabis cultivation, processing, storage, and manufacturing:**

a. Use of security fencing, natural barriers and other visual barriers;
b. Use of motion activated lights and noise alarms;
c. Use of structural modifications and security thresholds at key entryways;
d. Use of security gates, security doors and security bars in windows;
e. Use of police emergency alerts and silent alarms (“panic buttons”);
f. Use of security alarm systems and services;
g. Use of visible and/or hidden camera systems;
h. Use of safes, vaults and other secured storage devices for the storage of all cannabis, money and any confidential or sensitive information;
i. Use of communications equipment on site (2 way radios, earpieces, etc.);
j. Use of security dogs or other animal security features;
k. Use of non-lethal defensive tools by staff;
l. Use of armed security services or armed security staff.

II) Security Protocols for Licensed cannabis operations:

a. Use of an Operations Manual that includes a section covering security staffing responsibilities and facility security procedures;
b. Insurance requirements for all facilities and staff (liability, fire, theft, etc.), including crop and product coverage, transportation insurance and bonding for delivery drivers;
c. Provide licensed security training for staff members;
d. Require the use of incident logs and incident reporting procedures;
e. Develop secure cannabis intake and transportation procedures;
f. Compliance with OSHA lighting standards for employee safety and security, and;
g. Implement procedures for allowing employees and contracted individuals into high security areas for day to day work, maintenance and repairs, while excluding non-essential and non-authorized personnel.
D) **Nurseries.** For more information on this topic, please refer back to #3(F)

I. Please note that there is currently only one description of Nurseries, and they are all what would be considered as “wholesale nurseries”. There are currently no “retail nurseries”, and if there were, they would actually compete with dispensaries and sell plants directly to qualified consumers. Humboldt County has adopted such a model under their Ordinance and Local Licensing Authority.

II. All wholesale nurseries can rightfully sell plants to production farms, as well as to dispensaries. I anticipate there will be more business selling to production farms, based on current guidelines for home cultivation under M.C.R.S.A. (it’s very difficult for patients to grow their own, under the new regulations). I anticipate growing primarily for production farms, but would reserve the right to also provide plants to dispensaries.

III. Nursery sites conduct a great deal of research and development (more so than any production farms and even more than Testing Laboratories, in terms of sheer volume).
5) Cultivator Responsibilities for Compliance Inspection.

A) The Program will specify when Licensees must make their site available for inspection, and requires that the cultivation site be “safe for inspection”. This question then asks us how we intend to make our sites “safe for inspection”. I’m not really sure where you’re going here. There is nothing unsafe about cannabis farms that would require any special measures to be undertaken prior to any inspection. Obviously, if an alarm needs to be disarmed or a door or gate unlocked, this can be achieved in a short amount of time, given proper notice. There’s also the matter of reasonable business hours, and not expecting Licensees to be “on call” for inspections 24/7. So this really depends on how the Program establishes its inspection protocols. In regards to legally possessed firearms, Licensees could certainly be required to display said firearms (unloaded) for investigations by law enforcement, as part of any compliance inspections authorized by the Program under M.C.R.S.A.

B) There should definitely be protocols that are discussed with the industry before they are adopted, delineating things like what days and times the Track and Trace Program is expected to be in full operation, for the purposes of inspections. I assume that the staff availability and training on the part of the Licensees, as well as the staff availability and system operations on the part of the State, will create their own scheduling requirements for the purposes of any official inspections involving the Track and Trace Program. With the exception of Licensed Transporters and Distributors when they’re transporting, Licensees and their staff will have set schedules, and the staffing requirements of most operations management staff to be available on-site during non-business hours.

C) In regards to Records, I’m prepared to provide whatever records the Program requires. I suggest that the Program take into consideration all Federal and State protections in regards to the dissemination of confidential medical, financial and personal records or information, including such provisions as they are covered under M.C.R.S.A. If any confidential information is required by the Program, it should be secured in ways that protect the confidential data, and should not be held onsite in any way that would risk unsecure disclosures or security breaches. This is especially significant as it relates to interactions with certain law enforcement personnel. Both Licensees, and all State and Local Agencies overseeing the Program, have legal responsibilities to protect confidential information. Some in law enforcement (primarily members of so called drug and gang taskforces) could arguably expose Licensees or Program Agents to civil or criminal liabilities, if any confidential or sensitive information were seized under color of law, outside the parameters of this Program.
D) The subject of “who” conducts the inspections has been raised, and the logical answer is that all inspections should be directly overseen by agents of the three primary State Licensing Agencies, and that inspections may only be conducted by agents having data entry responsibilities for the Track and Trace Program, in accordance with M.C.R.S.A. Their counterparts within the Local Licensing Agencies could certainly be part of this inspection process, so long as the Program is directly overseen by the State Licensing Agencies.

It is imperative that the role of Inspections and oversight of the Track and Trace Program not be diverted to State and Local Law Enforcement Agencies, in general. They are not trained or equipped to participate in the Program, and they certainly do not have the resources needed to divert officers away from their roles in protecting public safety and responding to emergencies. While law enforcement agents could certainly accompany Inspectors, as a matter of protocol, their role should be limited to providing inspection security and legal status verification of any firearms maintained by Licensees on site.

Additionally, the role of many California law enforcement agencies within the Prohibition Industry presents a clear conflict of interest for them to have any direct role with License Inspections or oversight of the Track and Trace Program. Any officers working in so called “drug / gang taskforces” have a financial incentive to thwart this Program and to divert its efforts into fueling their own lucrative “eradication efforts”.

E) The cost to oversee Inspections and the Track and Trace Program are already covered within licensing fee structure and sales tax revenues incorporated within... There should be no additional fees.
6) Track and Trace Requirements.

First, it’s important to distinguish which State and Local Licensing Agencies do, and no not, have direct participation in the Track and Trace Program, in strict accordance with M.C.R.S.A. This would appear to only include C.D.C.A., C.D.F.A., and C.D.P.H. (and possibly B.M.C.R.) at the State Agency level. The Local Agricultural Commissioners should also be included on this list, and possibly the Local Public Health Directors.

Next, in order to properly implement the Track and Trace Program, it’s important to first identify every stage of data input and verification the system will require, and then assess the hardware and software necessary for Licensees to enter the data, and for Inspectors to verify the data.

The “Chain of Title” for this Track and Trace Program consists of the following individual components:

A) Nurseries (Type IV);

Nurseries are a starting point for the Track and Trace Program, having individual plant tags for all mother plants, and having group plant tags for all flats of cuttings, clones and seedlings. The Chain of Title for all plants emanating from Nurseries may only be Transported to Production Farms, Testing Laboratories, Manufacturers, Dispensaries (*including any Donations*), Authorized Medical and Drug Research Facilities or Authorized Waste Management facilities.

Note: Male cannabis plants contain less than .03% THC, and are therefore legally defined as “Hemp”. It is unclear at this time, whether male plants need to be included within the Track and Trace Program. Their ultimate disposition will likely be to Approved Waste Management Facilities, if they are maintained in the system at all.

B) Production Farms (Type I, Type1(A), Type1(B), Type II, Type II(A), Type II(B), Type III, Type III(A) and Type III(B));

Production Farms will most often receive plants from Nurseries. However, nothing in M.C.R.S.A. prevents them from also providing their own plants, even though it might not be cost effective to do so. Therefore, the Track and Trace program should also allow Production farms to be an initial starting point in the system, in the event they chose to produce their own plants.

The Chain of Title for all materials emanating from Production Farms may only be Transported to Testing Laboratories, Manufacturers, Dispensaries (*including any Donations*), Authorized Medical and Drug Research Facilities or Authorized Waste Management facilities.
C) Testing Laboratories (Type 8);

Testing Laboratories will primarily receive cannabis and cannabis plant conversions from Production Farms and Manufacturers, but may also receive cannabis or plant materials from Nurseries. The Chain of Title for all materials being Transported to Testing Laboratories is different from the other links in the chain, because the testing Laboratories do not actually hold the corresponding batches that their samples are derived from. Rather, the laboratory receives samples that correspond to batch numbers, and after those samples have been tested, they are destroyed (on site). The information contained in the test results is then input back into the Track and Trace Program, through the Labeling Process, and can then be used for verification by State and Local Licensing Agencies. This data will also be used by the Production Farms, Nurseries, Manufacturers, Dispensaries and Authorized Medical and Drug Research Facilities from whence the samples originated.

D) Manufacturers (Type 6 and Type 7);

Manufacturers will (purchase or receive) cannabis and plant materials from Nurseries and Production Farms. The Chain of Title for all materials emanating from Manufacturers should only authorize Transportation to Testing Laboratories, Dispensaries (*including any Donations*), Authorized Medical and Drug Research Facilities and Authorized Waste Management Facilities.

E) *Authorized Medical and Drug Research Facilities (No License Type at this time):*

Authorized Medical and Drug Research Facilities will receive cannabis, plant conversions and plant materials from Nurseries, Production Farms and Manufacturers. They represent one of three possible end-points in the Track and Trace Program, and any cannabis, plant conversions or plant materials they receive should either be used up completely, or if any waste material remains it may be destroyed on-site, or Transported to an Authorized Waste Management Facility. Authorized Medical and Drug Research Facilities would include any programs specifically authorized under M.C.R.S.A., as well as any other programs authorized by the State of California that require the use of cannabis for laboratory testing purposes, or for animal or human testing purposes. The State Licensing Agencies should consider adding a new category of License for research providers, or provide an application process whereby such research providers can become certified by the State and authorized to participate in the Track and Trace Program.
F) **Transporters (Type I2);**

Most transportations of cannabis that involve the transition of cannabis products and materials between licensed operations will be conducted by Transporters (and by Distributors with Transporter Licenses). However, the language of M.C.R.S.A. indicates that Production Farms might also transport cannabis directly to Distributors, and that Nurseries might transport cannabis plants directly to Production Farms. I am unclear at this time if those operations may license their own Transporters to do so, or if such transportation does not require a Licensed Transporter, per se. In either case, the Chain of Title requirements for all such cannabis and cannabis plants being transported, should include data entry and verification (through the Packaging and Labeling Process) at the point at which the transportation occurs. Transporters must have Shipping manifests for all cannabis and plants being transported.

G) **Distributors (Type I1);**

Distributors are responsible for maintaining secured Storage Facilities, where cannabis and cannabis plant conversions may be warehoused for long periods of time, in accordance with the supply and demand needs of the medical cannabis market. Distributors shall maintain Shipping Manifests for all batches of cannabis and cannabis plant conversions being stored.

Distributors are also responsible for providing Secured Transportation services, either themselves or through retaining a Licensed Transporter.

**Chain of Title** requirements for all cannabis and cannabis plant conversions include data entry and verification (through the Packaging and Labeling Process) at every point at which the cannabis changes hands, and during each stage of Transportation. Distributors should have Shipping Manifests for all cannabis and products received, stored, transported and sold.

H) **Dispensaries (Type I0 and Type I0(A));**

Dispensaries may: purchase cannabis plants from Nurseries; receive donations of cannabis “samples” from Nurseries and Production Farms; purchase cannabis from Production Farms, and; purchase cannabis plant conversions from Manufacturers. Dispensaries represent **one of three possible end-points** in the Track and Trace Program, and any cannabis, plant conversions or plants they receive must be provided to Qualified Consumers. Any remaining waste materials should be Transported to an Authorized Waste Management Facility.

I) * **Authorized Waste Management Facilities (No License Type at this time);**

Authorized Waste Management Facilities represent **one of three possible end-points** in the Track and Trace Program. They should input the dates, varieties and weights / volumes for
every delivery of cannabis, plant conversions, plant materials (and manufacturing waste?) they receive. And they should maintain records verifying the date and manner of all waste they process, which may include hazardous waste transfers to State authorized sites, incineration, composting, recycling (to a Licensed Hemp Producer), and land fill disposals. Authorized Waste Management Facilities include, but are not limited to, composting companies and landfills with compost facilities, incinerators and authorized yard-waste burn facilities, and authorized Hemp Manufacturers. Authorized Waste Management Facilities could be certified through the State and Local Licensing Agencies, and should be included as an “end stage” in the Track and Trace Program for all defective cannabis received by Distributors or Dispensaries, and all cannabis plant waste materials produced by Nurseries and Production Farms that are not sent to Manufacturers. And they could also receive waste materials from Licensed Manufacturers, depending on their licensing status in regards to hazardous materials storage and transportation. In regards to authorized Hemp Manufacturers, such operations will become available upon the successful implementation of CHSC § 11018.5, and such operations will be the logical choice for the disposal of all cannabis stalks and stems, as they are utilized in the production of Hemp. The State Licensing Agencies should consider adding a new category of License for Authorized Waste Management Facilities, or providing an application process whereby such companies can become certified by the State and authorized to participate in the Track and Trace Program.

J) * Authorized Point of Sale Software Companies (No License Type at this time), and;

These are private companies that only interact with the data system, and do not ever handle cannabis in any way. Point of Sale Software Companies are private sector companies that provide much needed software to the cannabis industry, for the purposes of tracking all inventory and financial transactions (for tax and insurance purposes). In order for these companies to accommodate the Track and Trace Program, the State Licensing Agencies should consider adding a new category of License for such companies, or providing an application process whereby such companies can become certified and authorized by the State to participate in the Track and Trace Program. It’s possible that such companies might even be well suited to assist State Licensing Agencies with developing the Track and Trace Program.

K) * Inspection Agents with the Department of Consumer Affairs, the Department of Food and Agriculture, the Bureau of Medical Cannabis Regulation and the Department of Public Health.

Once the State and Local Agencies have been identified that will directly participate in the Track and Trace Program, it is essential that the Software and Hardware providers be contracted by the participating Licensing Agencies. Then, the systems must be distributed and installed throughout the state, so that staff training and Beta Testing can occur, well before the 2018 roll out.
The term “Donations” in 6(A), 6(B), 6(D) and 6(H) refers to: All donations made from Licensed Nurseries that produce cannabis flowers under section 1(F)(V)(b), to their own staff and to Licensed Dispensaries, for the exclusive purpose of providing free samples to qualified consumers; All donations made from Licensed Production Farms to their own staff and to Licensed Dispensaries, for the exclusive purpose of providing free samples to qualified consumers, and; All donations made from Licensed Manufacturers to their own staff and to Licensed Dispensaries, for the exclusive purpose of providing free samples to qualified consumers.

There are several purposes for allowing limited donations. It provides all cannabis producers the ability to conduct market research into every strain of cannabis and every variety of cannabis product (especially new ones). It provides additional quality control mechanisms for cannabis producers, manufacturers and providers. It improves the effectiveness of cannabis labeling, with the inclusion of flavor and potency ratings. It also provides a mechanism to promote new strains and products. And most importantly, it allows the cannabis industry to continue offering limited supplies free cannabis to qualified patients who simply cannot afford to meet their medical needs at retail prices.

All Donations would be entered into the Track and Trace Program, and could also be used for accounting and tax purposes.

If donations are not allowed by C.D.F.A., then the term “Donations” should be removed from all sections.

L) The Track and Trace Program needs to maintain uniformity between all State and Local Licensing agencies, contracting with one approved software system (with accompanying hardware), that is capable of comprehensively tracking all of this data. The software and hardware should meet the approval of these four State Licensing Agencies, and should also be vetted by cannabis industry experts, before being offered for use. Local Licensing Agencies should be provided with this software and hardware package, once the State has negotiated the contracts, in order to begin testing the system before 2018.

Note: Some Local Cities and Counties may already be reviewing contracts with software companies, for their own tracking purposes. It is imperative that no local jurisdictions enter into any contractual obligations regarding the Track and Trace Program until after the State Licensing Agencies have developed it, in order to prevent confusion and incompatibility between local jurisdictions and the Program.
M) The term “Unique Identifier” essentially refers to bar-coded labeling, with data entry and verification capabilities at every stage of transition between each link of the Chain of Title (A-J). This process should be clarified within the scope of all Packaging and Labeling Requirements under M.C.R.S.A., so that the Track and Trace Program is incorporated within the industry’s packaging and labeling process. These Unique Identifiers should be applied to all individual plants, as well as to batches of immature plants and to batches of all packaged cannabis and plant conversions. All Unique Identifiers should correspond directly with Samples received by Testing Laboratories, and should be subject to verification through the Track and Trace Program at every stage of a transaction.

N) Batch Numbers. Batch numbers are simply unique identifiers used for groups of things. They should be issued for all Nursery Flats (to be defined) grown at Nurseries and Production Farms. Batch numbers should also be issued for all units of cannabis (to be defined) harvested by Production farms, and for all units of cannabis plant conversions (to be defined) produced by Manufacturers. These respective Batch Numbers should be maintained throughout the Chain of Title process, until the end points at which the cannabis is either provided to the consumer, used for research purposes or destroyed / recycled.

O) In accordance with 1-C, the current outline of Draft Regulations for the Medical Cannabis Cultivation Program should be corrected, in regards to distinctions made in the Track and Trace Program between Immature Plants (requiring Unique Identifiers for Batches of plants) and Vegetative or Flowering Plants (requiring Unique Identifiers for individual plants). The current draft defines this distinction as anything below or above 8 inches in height. This should be changed to the description offered herein. Setting an arbitrary height is completely meaningless, impractical and an enforcement nightmare. Plants meant for outdoor planting are naturally grown larger, at every stage of growth, than their indoor counterparts. An immature plant is immature, regardless of its height. Plants are immature until they have established roots and have been placed into vegetative growth. Their size is completely irrelevant, and has nothing to do with their stage of growth, or the purposes for which they can be used.
7) State License Violations and Appropriate Penalties.

A) Timelines for Transition from M.M.P.A. to M.C.R.S.A. It has become clear from attending these recent public meetings that the cities and counties with local cannabis bans in effect, together with various state and local law enforcement agencies, are preemptively attempting to misrepresent the laws as they relate to this state-wide legal transition. Nothing in M.C.R.S.A. circumvents anything contained within the Compassionate Use Act (and if there were, it would be voided by the Courts). Furthermore, only one small section of the Medical Marijuana Program Act is being redacted as a result of M.C.R.S.A. The rest of it remains quite intact, including the provisions that apply to individual patients and primary caregivers. The redacted section contains language which has been used to justify the formation of the Collectives and Cooperatives that we are familiar with today. Interestingly, removing this section does not prevent any existing Collectives and Cooperatives from applying for Licenses under M.C.R.S.A., and in fact, every Applicant who registers for Priority Status is most certainly a Collective or a Cooperative now. But even more importantly, the legal protections afforded to Collectives and Cooperatives under the M.M.P.A. do not expire until 1 year after the first State Licenses are issued in 2018. This literally means that there is no urgency for State interventions to shut down existing dispensaries and delivery services. Their operations will either transition into Licenses by 2018, or they will face local nuisance abatement actions if they do not. State law literally maintains criminal and civil legal protections for such operations until sometime in 2019!

It is imperative that C.D.F.A. instruct all M.C.R.S.A. Inspection Agents that under C.H.S.C. Section 11362.775(b), the rules governing patient Collectives and Cooperatives are still in effect, until one year after the B.M.M.R. posts a notice on its Internet Website that the licensing authorities have commenced issuing licenses pursuant to the M.C.R.S.A., and that those protections are not legally repealed until then.

B) Misuse of State Resources in Banned Jurisdictions. In every banned jurisdiction (cities and counties with actual or de-facto bans on cannabis cultivation and dispensation), the primary focus of Local representatives at M.C.R.S.A. Regulatory Workshops, has been to inquire about how resources developed by this Program can be siphoned off, to ostensibly target any remaining medical cannabis farms in their jurisdictions with Program licensing violations prior to 2018. These requests present a stark reminder of how public resources are routinely being squandered under the guise of cannabis prohibition, with no regard for the public interest or the rights of landowners, business owners or patients.

It seems clear that the prohibition industry desires to misappropriate the new, public funds generated through M.C.R.S.A., and to misapply the law, in order to “enforce” provisions of
M.C.R.S.A. that do not yet exist, or that simply do not apply to their jurisdictions. If local cities or counties opt to pursue nuisance abatement actions against local patients and farmers, they have their own code enforcement budgets to pay for it, and should not be allowed to appropriate state agents and funding from this Program to do so. In the interests of preventing this waste of public resources, and in preventing enforcement actions that run counter to what M.C.R.S.A. actually states, I suggest that C.D.F.A. Instruct all Licensing agents that your mission and functions includes assisting in the enforcement of local ordinances within jurisdictions that choose to participate in the Program (or that abdicate to State jurisdiction in this matter). I strongly suggest that you consider withholding all M.C.R.S.A. funding that State and Local Licensing Agencies receive, from being applied in any jurisdictions having effective or de-facto cultivation bans on the books. There are no license applicants in these jurisdictions, by virtue of their opting out of the regulatory framework of M.C.R.S.A. For legal purposes, banned communities have literally outlawed all medical cannabis production within their jurisdictions, placing 100% of their cannabis enforcement budgets outside the purview of State Licensing Agencies. Their own local code enforcement and law enforcement budgets should pay for the enforcement of their bans. The funds from this Program are legally designated for use by State and Local Licensing Agencies, and there are no licensing related enforcement obligations in any city or county where such operations are banned. Doing so places an undue burden on every Licensee, and is effectively a government taking of property (being forced to pay for programs that do not apply to the applicants);

C) Enforcement Protocols. The current language seems more insinuative than instructive.

I. License Violations. Under the current draft regulations, “CDFA will have up to 2 years from the date of any violation within which to bring an administrative action (to suspend or revoke licensure, or any other disciplinary action) for a violation”.

This does not indicate whether or not the act of being investigated itself leads to any sanctions against the Licensee. Is a Licensee expected to halt operations for upwards of two years, any time CDFA is investigating possible violations?

II. Administrative Hold Procedure. This paragraph makes no sense, either by itself, or in combination with the following and preceding sections. It states “to prevent the destruction of evidence, diversion and threats to public safety, cannabis and cannabis products may be placed under a hold. Licensees shall segregate the items on hold so that they are secure.”
There is no mention of when an Administrative Hold Procedure should be initiated. Is it after an investigation has been concluded, and administrative action is taken to discipline the Licensee, or to Suspend or revoke the License? Or, is it during the “up to 2 year investigation” process? And what about the Appeal Process? Once an Appeal has been filed, this should preserve a Licensee’s / Applicant’s rights until a final judgement is rendered.

Once a Hold is initiated, Applicants / Licensees are being asked to “segregate” the items on hold, taking them out of production. This is completely unnecessary, considering that all cannabis plants, processed cannabis and cannabis products have Unique Identifiers. This enables CDFA and the other State and Local Licensing Agencies the ability to effectively place a “digital hold” on any products, immediately after they are found to be in violation. This effectively removes such items from the marketplace, without taking them out of the cultivation, processing or manufacturing processes prior to the completion of an investigation.

Holds should only be issued after CDFA has completed an investigation and found a violation.

III. Voluntary Surrender of Cannabis. Here, CDFA contemplates a “procedure allowing Licensee to surrender cannabis or cannabis products prior to the completion of an investigation. The cannabis or cannabis products will be destroyed. Does not waive a Licensee’s right to a hearing.” This language suggests that such surrenders would be 100% voluntary, yet it does nothing to explain why any cannabis should be surrendered in the first place. Destroying merchandise before the results of a hearing seems to circumvent the hearing process. Additionally, if a Licensee triumphs at the hearing, or at the appeal, and the merchandise was destroyed already, the Licensing Authority that destroyed the property would be civilly liable. And regardless of the “immunity” that Licensing Agencies are bestowed under M.C.R.S.A., this only applies against Licensees. It does not apply against Insurance Companies, and all cannabis plants and cannabis products will undoubtedly be insured.

Voluntary surrender of cannabis should only occur after a Licensee has received a Notice of Violation and either lost or waived an appeal.

IV. Completed Investigations. I suggest that this would be a more appropriate place to require a Hold Order (rather than at the beginning of an investigation). If CDFA has found a violation and assesses the penalty at this stage, it makes more sense to place a Hold on any suspected merchandise at this time.
V. Minor, Moderate and Serious Violations. In order to determine the level of seriousness to attribute to violations, it’s important to consider things like: whether or not the violation was done intentionally; whether or not the violation involves criminal diversion; whether or not the violation constitutes a crime against any person, property or breach of contract; whether or not the violation can be corrected; whether or not the violation caused environmental damage and determining the costs to remediate said damage, etc.

a. It’s also important to distinguish between Applicants and Licensees, and to not confuse them. A Licensee has already established legal privileges under M.C.R.S.A., whereas an Applicant is in the process of securing those legal privileges. When describing both categories of person, the language should read “Applicants or Licensees”. This leaves room for language that identifies situations where their options might end up being different, even though they are the same right now. It’s also just better language, because each word identifies a different category of person.

b. Minor Violations should include those that occur through no fault of an Applicant or Licensee, and are not the result of willful disregard for the laws. Minor violations should also include those that are the result of potential flaws in The Program, contradictions between State and Local Licensing Authorities, or contradictions between M.C.R.S.A. and the C.U.A., M.M.P.A., or any other Local, State or Federal laws. Minor Violations should result in a Notice of Corrective Action, containing a reasonable timeframe for Applicant / Licensee to correct the problem, and an inspection date for Licensing Agencies to verify the correction. The only fees for a Minor Violation should be to cover the administrative and inspection costs, and should not be punitive in nature.

c. Moderate violations should only result from Applicant’s / Licensee’s willful disregard for the laws. Moderate Violations include any minor violations that are repeated by Applicant / Licensee, after having already concluded an investigation process regarding the same program violation and/or the same plants or merchandise. The investigation process must include: the investigation itself; the initial notice of violation, and; the conclusion or waiver of the appeal. It should be made clear that Local and State Licensing Agencies cannot charge the same activities repeatedly, while an investigation process is taking place, as “separate violations”. Moderate Violations also include any violations that would prevent an Applicant from Obtaining a License, under the statutory requirements contained within the actual language of M.C.R.S.A.

Penalties for Moderate Violations may include punitive fines, in addition to fees levied by Licensing Agencies to cover their administrative and inspection costs.
d. Serious Violations should only result from Applicant’s / Licensee’s willful disregard for the laws. Serious Violations include any major violations that are repeated by Applicant / Licensee, after having already concluded an investigation process regarding the same program violation and/or the same plants or merchandise. The investigation process must include: the investigation itself; the initial notice of violation, and; the conclusion or waiver of the appeal. Serious Violations should also include: Convictions in Criminal or Civil Court for any legal violation enumerated in Business and Professions Code Section 19323(b)(5) (i.e. violations that would prevent an Applicant from being able to obtain a License in the first place); Convictions in Criminal or Civil Court relating to diversions of cannabis from or to the criminal market, and; Any findings of environmental damage caused by Applicant / Licensee, which are not remediated in accordance with the timeframes and processes enumerated within M.C.R.S.A.

Penalties for Serious Violations shall include punitive fines, in addition to fees levied by Licensing Agencies to cover their administrative and inspection costs, and may also include Suspension or Revocation of License. CDFA should develop policies and procedures regarding License Suspensions and License Revocations.

VI. Appeal Process. Because Licensees have 30 days to appeal any violation findings, and CDFA has an additional 14 days after an appeal to issue a decision, it’s important to include a 45 day exemption to any surrender or destruction orders, from the date of the completion of any investigation and issuance of any violation. No surrender or destruction order should be final until the appeal process is exhausted.

D) Catch 22 for all Pre-2018 Applicants. It’s important that you read Section 19323 (b) (8) of the Business and Professions Code, as it relates to the question of license violations and penalties. I suggest that you develop a Transition Protocol and Timeline, and instruct all State and Local Licensing Agencies to follow it. Based on my professional experience, I can predict that many existing (“priority status”) applicants, as well as all “new” applicants, who attempt to put plants in the ground in 2017 will be subject to all manner of scrutiny from various law enforcement, code enforcement and licensing agencies. Many of these agencies may not even be part of the state or local licensing process. Yet, any administrative, civil or criminal sanctions undertaken against an applicant, by any of these agencies, could effectively cause that applicant to be found in violation of Section 19323 (b), and this would allow any Local or State Licensing Authority to deny their application. To restate this problem, any local law enforcement agent or code enforcement agent, or any agent of the numerous state and local licensing authorities, can effectively ruin any applicant's chances for obtaining a license in 2018, by merely sanctioning that applicant in any way, for the activities they are currently engaged in before
their license is issued. This includes any so-called “investigations”. There is no language contained within MCRSA to prevent this from happening. I therefore suggest that CDFA develop Transition Protocols and Timelines including provisions that:

I) Establish which specific state and local agencies may sanction an Applicant, within this Section, and in accordance with M.C.R.S.A.;

II) Determine what constitutes a Minor Violation, a Moderate Violation and a Serious Violation, and what different sanctions, resolutions and penalties apply to each;

III) Establish a reasonable timeframe to conduct hearings for violations;

IV) Mandate that any sanction must attach to a specific, stated violation of M.C.R.S.A.;

V) Require that every sanction be recorded, noticed and arbitrated in accordance with the provisions of M.C.R.S.A.;

VI) Require that any agent issuing a sanction against an Applicant or Licensee must provide the remedies and timeline that Local or State Licensing Authority requires from applicant / licensee, in order to resolve the violation.
New Items:

8) Carbon Credits for Outdoor Farms.

Cannabis plants sequester measurable amounts of carbon, and they’re also really great Nitrogen fixators. Are there any State or Private programs or partnerships that would allow Licensees to apply and qualify for carbon offset credits or soil remediation funds, now that cannabis farms will finally be able to provide a significant positive impact on carbon sequestration and improving local soil conditions?

9) Renewable Energy Programs for Indoor and Mixed Light Farms.

Many cannabis farmers would like to operate using 100% renewable energies. In fact, at least one Local Licensing Authority (Humboldt County) is actually requiring Licensees to develop such operations. Are there any State or Private programs or partnerships that would allow Licensees to receive any grants, loans, matching funds or tax credits in order to install renewable energy systems?

Conclusion:

This concludes my Public Comments to the California Department of Food and Agriculture. Please review this document, along with the attached “Cannabis Production Requirements for 2018”, as part of your ongoing deliberations, and include them within your Workshop Survey, in regards to the development and implementation of all Cultivation Licensing Regulations under M.C.R.S.A.

I intend on coordinating any important or unresolved matters between State and Local Licensing Agencies, and then taking up such matters as must be addressed through clean-up legislation with the appropriate State Senators and Assemblymen.

I thank you for your time and consideration in these matters. I am available to discuss this all in more detail, in either a voluntary or professional capacity.

Sincerely,
Jason Browne (Expert Witness / Cannabis Industry Consultant)
530-528-0215 (office) / 530-736-6801 (cell)
education@fullcirclecannabis.com
Calculating California’s MCRSA Cannabis Production Requirements for 2018

By Jason Browne (Expert Witness / Cannabis Industry Consultant)

Greetings,

After having reviewed the ongoing regulatory developments under M.C.R.S.A. at the State and Local levels, it has become clear to me that California’s Licensing Agencies may have no idea what amounts of cannabis the legal consumer market currently requires. This information is crucial in determining the total number and types of cultivation licenses that California should issue (beginning in 2018), as well as the corresponding number of dispensary and manufacturing licenses that State Licensing Authorities will issue. If California’s newly regulated medial cannabis industry is not tasked with providing enough cannabis to accommodate the medical needs of medical consumers, the Medical Cannabis Cultivation Program will actually cause unnecessary diversions to, and from, the criminal market. Due to the De-facto and actual cannabis bans that many local jurisdictions are expected to continue enforcing, it is essential that every local jurisdiction having Licensed Dispensaries be tasked with providing enough cannabis to meet the needs of qualified patients from nearby banned jurisdictions. This will require C.D.F.A. to actively research patient needs and to offer statewide and regional production goals based on those needs. In the interests of fairness to the industry, and in order to ensure the success of M.C.R.S.A., I’m offering you the correct methodology required to determine the aggregate needs of patients’, in order for your agencies to know what ongoing cannabis production requirements really are:

1) Determine # of Qualified Patients in California. According to conservative estimates conducted by California NORML and by independent California cannabis physician specialists, the number of patients who have qualified under the C.U.A. in the past year is around 3 million. This number is probably lower than the actual amount, but it is most certainly not an overestimation, and should prove to be a good starting point for C.D.F.A. to determine California’s current cannabis needs.

2) Determine the methods of delivery employed by patients to consume their cannabis, based on the percentages of cannabis they inhale, consume in edible form, and consume in solution, topical and concentrated forms. While these numbers may be elusive at first, polls of existing dispensaries can provide a window to this information now. For our initial purposes here, until we plug in more detailed information, let’s assume that 1/3 of cannabis is inhaled (smoked or vaporized), around 1/3 of cannabis is used in edible forms (foods and beverages), and around
1/3 of cannabis is used in solutions (tinctures), in concentrated forms (keif and charas, hashish, hash oils and waxes, etc.), and in topical forms (salves, ointments, etc.). This is to show you how to apply the math, and when we have actual figures from dispensaries we can plug those numbers into the equation. But for our purposes here, these numbers are a good starting point. It's likely that this is a low estimate, because more than 1/3 of patients may prefer these other methods to inhaling.

3) Determine the average use patterns of patients, per annum. For this step, we only need to look at the amounts that patients inhale (smoke or vaporize), and we can use this number as our base (for reasons which are explained in #4). Based on research conducted by numerous cannabis physician specialists, the average amount of cannabis consumed by 70% - 80% patients in California, who use inhalation as their primary method of delivery, is 3 pounds of cannabis per year.

Obviously, the availability and price of the cannabis are also factors to consider, but this figure represents how much cannabis patients tend to require for their medical purposes. If they grow it themselves, this is how much they use. Factors such as price and availability are directly related to the success or failure of this Program. The more cannabis produced within the Program, the lower the price will be to consumers, and the more they will be able to purchase their entire supply from Licensed Dispensaries.

Also worth note, only the processed flowers (buds) are counted for purposes of inhalation, as “usable” cannabis under the M.M.P.A. For the purpose of determining amounts of inhaled cannabis, the leaves are not used and their weight does not count here. They are, however, used in the manufacturing process, and can be included for that purpose (see #4).

4) Determine the amounts of raw, dried cannabis required to manufacture the various plant conversions that patients consume. As an Expert Witness, I have firsthand knowledge in this subject. It requires around 4 times the amount of cannabis that a patient would inhale, in order to manufacture a comparable dosage in edible form. Likewise, it requires at least 10 times the amount of cannabis that a patient would inhale, in order to manufacture a comparable dosage in concentrated form, in solution form, or in topical form. It’s worth noting that both the dried leaves and the dried flowers can be used to manufacture cannabis plant conversions.
5) Now apply these figures into a simple calculation, in order to show the aggregate medical needs of all qualified patients in California, for the calendar year 2018:

1 million patients who primarily inhale x 3 pounds per year = 3 million lbs. (buds only)

+ 1 million patients using edibles x 12 pounds per year (3 lbs. x 4 to make) = 12 million lbs.

(The amounts of leaves and flowers produced by cannabis plants is roughly equivalent, so this figure represents 6 million pounds of buds and 6 million pounds of leaves)

+ 1 million patients using solutions, topicals & concentrates (3 lbs. x 10 to make) = 30 million lbs.

(The amounts of leaves and flowers produced by cannabis plants is roughly equivalent, so this figure represents 15 million pounds of buds and 15 million pounds of leaves)

= 45 million pounds of cannabis (24 million pounds of buds and 21 million pounds of leaves)

A more detailed analysis can be provided regarding each different type of manufacturing and the exact ratios between dried plant weight and the equivalent dosages for each product. This figure provides a very basic understanding of this subject, but it’s accurate enough to indicate why any artificial limitations to the number of cultivation licenses (or any other licenses under M.C.R.S.A.) are a bad idea: Because every pound of cannabis represented here that is not produced and sold by licensed operators, will literally incentivize the “prohibition market”.

6) There are other factors to consider, such as: The monthly breakdown of these figures; The amount of time it will take for the industry to ramp up enough to provide cannabis to every patient in California; increases to the qualified patient population, and; policies regarding the secured storage of excess cannabis during times of overabundant supplies, in order to maintain stores in between harvest times, and during times of dwindling supplies. However, these matters will be addressed through adjustments within the market itself, and are not factors requiring any interventions by the State at this time.
Additionally, should California ever legalize cannabis for adult use, the number of consumers will increase dramatically, even though the amounts required by individual recreational users will likely be far less than those of individual patients. If proposition 64 passes in November, the amounts of legal cannabis required in California will become substantially higher.

7) Determine the amounts of cannabis flowers that plants produce. I have over 20,000 hours of experience in the cultivation of cannabis, in all stages of growth and in all mediums. This includes experience with determining the yields of plants, based on methods established by our own federal government (D.E.A.). In outdoor farms, a cannabis plant can produce an average of 1 ounce of flowers per square foot of plant canopy. This takes into account the high end of 2 ounces per square foot, and the low end of ½ ounce per square foot. For indoor farms, this figure only applies if the lighting is equivalent to 100 watts per square foot of plant canopy.

8) Determine the approximate area of plant canopy required to produce California’s annual supplies of cannabis:

\[
\frac{24 \text{ million pounds (384,000,000 ounces)}}{1 \text{ ounce per sq. ft.}} = \text{384,000,000 square feet of plant canopy}
\]

9) In order to determine how many licenses, in each category, are required to achieve these results, it will be necessary to calculate the following:

A) How many cities and counties are moving forward with licensing under M.C.R.S.A.? They represent 100% of the cultivation licenses that will be required, in order to produce this amount of cannabis for the entire state patient population.

B) What are reasonable breakdowns for Type 1, Type 2 and Type 3 Licenses, in each of those jurisdictions? Remember, Type 1 farms can produce up to 5000 square feet of plant canopy, Type 2 farms can produce up to 10,000 square feet of canopy, and Type 3 farms can produce up to 43,560 square feet of plant canopy.

C) What is the best equation for issuing cultivation licenses, in conjunction with the number of dispensaries and manufacturers that are licensed, at any given time? This requires the coordination of 3 separate State Licensing Agencies, as well as dialogue with all Local Licensing Agencies.
A very basic breakdown of the number of cultivation licenses required, focusing only on 9(B), and disregarding, for the moment, the unknown factors represented in 9(A) and 9(C), we are left with the following:

Type 1 Licenses Alone = \( \frac{384,000,000}{5000} = 76,800 \) Licenses

Type 2 Licenses Alone = \( \frac{384,000,000}{10,000} = 38,400 \) Licenses

Type 3 Licenses Alone = \( \frac{384,000,000}{43,560} = 8,815 \) Licenses

The actual break-down would be some combination of these three figures. For example, if around 50% of licenses are Type 3, 25% are Type 2 and 25% are Type 1, California will require **4,408 Type 3 farms, 9600 Type 2 farms, and 19,200 Type 1 farms**.

These numbers represent the ideal number of licenses that California may require, once the program is completely underway. It may take some time to get to this point, and this is all predicated on a more thorough understanding of actual dispensary sales, and on determining other factors which are unknown at this time, such as those contained in #6, #9A, and #9C.

Even if only 25% of this goal is met in 2018, ramping up additional licenses as the market develops, California would need to issue at least **1100 Type 3 Licenses, 2400 Type 2 Licenses and 4800 Type 1 Licenses**, in the first year alone.

**No Artificial Limitations (yet):** Any artificial limitations placed on the number and types of Cultivation, Dispensary and Manufacturing Licenses, enacted without a clear understanding of the subjects I’ve raised herein, will essentially undermine the effectiveness of this Program and will play into the hands of the criminal “prohibition” market. All qualified patients should be able to safely access 100% of their cannabis from Licensed Dispensaries, at affordable prices and in amounts that are sufficient to meet their medical needs.

The regulations and licensing requirements already in place under M.C.R.S.A., combined with the sheer volume of cannabis required by California patients, create a sufficient market barrier to prevent the issuance of “too many” cultivation licenses. If anything, the high demands for cannabis alone may very well outpace the legal supplies available in the market, without any artificial restrictions being placed on the types and numbers of cultivation licenses issued by the C.D.F.A.
The number of parcels available locally for cultivation is restricted further, based on Coastal or Inland designations, Local zoning and acreage requirements and Local limitations on the number of businesses per parcel. There is no identifiable need for State Licensing Agencies to place any artificial limitations on anything right now.

C.D.F.A. should consider the subject of exploring Type 3 License restrictions as an opportunity to advise Local Licensing Agencies what the projected state-wide needs might be. Before Local Licensing Agencies choose to artificially limit the number and types of licenses they issue, it may be a good idea for C.D.F.A. to develop statewide production quotas and to suggest a reasonable combination of cultivation licenses, so that local agencies have enough information to properly develop their own licensing standards. C.D.F.A. could then enter into a partnership with Local Licensing Agencies, in order to ensure that enough cultivation licenses are issued in order to accommodate California’s needs, while allowing local preferences to determine the capacities and locations of operations.

Due to the enormous plant canopy required to produce all of California’s annual medical cannabis supplies, the fewer Type 3 farms that are licensed, then more Type 2 and Type 1 farms will be required. Having a significant number of Type 3 farms will actually reduce the burden of having “too many” smaller farms in any given community, without reducing the State’s overall production quotas. C.D.F.A. could then develop high and low thresholds for Type 3 farms, and let Agencies work within that range. If you chose to offer a range, I would suggest that Type 3 Licenses be limited to 10% - 50% Total Plant Canopy (TPC) in every local jurisdiction. Or, C.D.F.A. could just issue one state-wide standard for all local jurisdictions to follow. In the example above, I reserved 50% of TPC for Type 3 farms, 25% of TPC for Type 2 farms, and 25% of TPC for Type 1 farms. But whatever numbers you choose, utilizing percentages of total plant canopy is the best way to evaluate the # of licenses available in each category.
No Lighting Restrictions: Likewise, C.D.F.A. should not create any artificial restrictions on the amounts of light that indoor and mixed use facilities may use. The primary reason is that doing so directly and artificially limits the amounts of cannabis that a farm can produce, which leads to an artificial increase in the cost to produce each pound. For your information, the amount of indoor lighting required to produce the equivalent to sunlight is 100 watts per square foot of plant canopy. This means that in order to compete with outdoor farms, indoor and mixed use farms should be legally able to approximate or surpass the amount of light available outside. The second reason not to restrict lighting, is that Licensees will pay for it as a cost of business, and it’s their right to use as much electricity as they pay for. Furthermore, many indoor and mixed use farms may ultimately derive all or most of their energy from renewable sources, depending on the development of industry standards, the accessibility of public and private programs to the industry, and Local licensing requirements mandating renewable energy (such as those developed by Humboldt County). For all these reasons, there is no justifiable reason for C.D.F.A. to artificially restrict electrical usage.

I thank you for your time and consideration in this matter. 9/26/2016

Sincerely,

[Name] (Expert Witness / Cannabis Industry Consultant)

education@fullcirclecannabis.com

p.s. I’m also available to assist State Licensing Agencies with estimating the number of dispensaries California may require in each “green” community, based on the patient populations from surrounding “banned” jurisdictions.
Comment 36
September 30, 2016

Please see below Agricultural Commissioner comments to specific California Department of Food and Agricultural Medical Cannabis Cultivation Program regulatory goals.

Comments to Regulatory Goal #3: Identify the cultivator license types by light source and site size. Clarify allowable license combinations; outline renewal process and set licensing fees

1. CDFA should allow licensed cultivators to move harvested cannabis product from a cultivation site to a processing facility without requiring a transfer to a transporter (type 12 license).
2. CDFA should allow cultivators to hold a dispensary license type (type 10A?) which would allow for cannabis cultivators to develop and operate farm stay “Bed and Bud” lodging facilities.
3. CDFA regulations should define “wholesale” and “retail” nurseries.
4. CDFA regulations should define “immature plant” as opposed to “production or flowering plant” for the purpose of separating nursery stock production from Type 1-3 (cultivation license).
5. CDFA regulations should mandate pest detection, prevention and cleanliness standards equivalent to the standard CDFA nursery program.
6. CDFA regulations should mandate that any cannabis nursery stock produced, sold, or distributed must be produced by a Type 4 licensed retail or wholesale nursery.
7. CDFA regulations should mandate that Type 1-3 (licensed cultivators) who do not produce their own nursery stock (if allowed to do so) shall only purchase nursery stock from licensed Type 4 nurseries.
8. CDFA should develop standard protocol, and provide CAC guidance regarding submission of PDR’s and pest samples related to cannabis production.
9. CDFA regulations should clarify if a Type 1-3 cultivator can produce their own nursery stock for themselves and/or sell live immature plants.
10. CDFA regulations should clarify whether a Type 10 or 10A Dispensary can hold a Type 4 license and sell immature plants, or alternatively sell (but not produce) live plants under the Type 10 license (retail sales of immature plants is currently a standard industry practice).
11. CDFA regulations should clarify any production size requirements or limitations on a Type 4 license since the law does not provide any clarification.
12. CDFA should develop regulations addressing wholesale cannabis seed production for resale and strain development.

Comments to Regulatory Goal #6: Specify Track and Trace Requirements

1. CDFA should recognize that batch and lot track and trace methodologies for medical cannabis products offer a viable alternative to individual plant tagging as a way to prevent injection or diversion of medical cannabis, and provide traceability through the entire distribution chain. Individual plant tagging is labor intensive, time consuming, expensive and not a practical requirement for an existing large scale outdoor medical cannabis industry. No other agricultural
products is required to place an individual tag on each plant.

2. CDFA should develop a track and trace program that allows local jurisdictions access to data sufficient to demonstrate local compliance with State track and trace requirements. This local access would eliminate the need for local track and trace programs thus simplifying data sharing and communication between State and local agencies as well as for license holders required to participate in the program.

Respectfully submitted,

[Redacted]

Agricultural Commissioner/
Sealer of Weights & Measures
Hello,

I attached a word document with all of my comments. Please feel free to contact me with any questions.

Thank you, Jeff

NOTICE: The information contained in the above message is confidential information solely for the use of the intended recipient. If the reader of this message is not the intended recipient, the reader is notified that any use, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify immediately by telephone.
Amber,

This is [Redacted] from Silver Star Protection in Illinois, we spoke a few months back about the California Cannabis Program. We are still consulting with the Timbisha Shoshone Tribe and I wanted to touch base and ask for some clarification regarding the attached California Code of Regulations. In regards to the area that cultivation applicants will need to attest to and “comply with prohibition of weapons and firearms at the cultivation site”. I was hoping to gain some clarity on this issue, will you allow a proprietary security force or a California licensed security agency to have armed personnel on-site for security purposes. I know that we have worked with the State of Illinois and they know we are providing armed security services as a licensed security contractor for cannabis related entities.

I would welcome an opportunity to discuss this regulation and get a better understanding so we can develop our procedures moving forward, I am available at your convenience for a call.

Thank you,

[Redacted]

Managing Partner, Silver Star Protection Group

Web: [www.silverstarprotection.com](http://www.silverstarprotection.com)
Notice of Preparation

To: Responsible, Federal and Trustee Agencies  
(Agency)

From: California Department of Food and Agriculture  
1220 N Street, Suite 400

Sacramento, CA  95814

Subject: Notice of Preparation of a Draft Subsequent Environmental Impact Report

The California Department of Food and Agriculture (CDFA) is the lead agency and is preparing a Program Environmental Impact Report (PEIR) for the project identified below. CDFA would like input from your agency and interested members of the public regarding the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the PEIR prepared by the CDFA when considering any permit or other approval related to the proposed project.

The project description, location, and potential environmental effects are contained in the attached materials. A copy of the initial study □ is ☒ is not attached.

Because of the time limits mandated by state law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Amber Morris at the address above. Please include your name or the name of a contact person in your agency.

Project Title: Medical Cannabis Cultivation Program

Project Applicant, if any: n/a

Date: September 1, 2016  
Signature: ☑️

Title: Branch Chief

Telephone: (916) 263-0801

Email: mccp.peir@cdfa.ca.gov

1. Introduction

In late 2015, the State Legislature passed, and Governor Brown signed into law, the Medical Cannabis Regulation and Control Act (Act). This Act, consisting of three separate bills (Assembly Bills 243 and 266, and Senate Bill 643), outlines a new structure for regulation and enforcement of medical cannabis production and use in California. The Act addresses issues such as cultivation, manufacture of cannabis products, quality control and inspection, distribution, dispensaries, and prescriptions for patients. The Act establishes new licensing procedures for various aspects of the production process. Marijuana is currently a Schedule 1 controlled substance under federal law. Individuals engaging in cannabis cultivation and other activities risk prosecution under federal, state, or local law.

The Act identifies a number of state agency responsibilities, including tasking the California Department of Food and Agriculture (CDFA) with licensing medical cannabis cultivation, as well as establishing a “track and trace” system, which involves development of a unique identifier for each plant, a reporting system, fees, and documents the transport path of plants from cultivation to distribution as a medicinal cannabis product.

In compliance with the Act’s requirements, CDFA is developing regulations to establish a licensing program for medical cannabis cultivation and establish a track and trace system. These are collectively referred to as the Medical Cannabis Cultivation Program (MCCP), Program, or Proposed Program. CDFA is preparing a Program Environmental Impact Report (PEIR) to provide the public, responsible agencies, trustee agencies, and permitting agencies with information about the potential environmental effects associated with the adoption and implementation of these statewide regulations. The PEIR will be prepared by CDFA in accordance with the provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. CDFA will be the lead agency pursuant to CEQA and will consider comments from responsible and trustee agencies, property owners, and interested persons and parties regarding the scope and content of the environmental information to be included in the PEIR.

2. Program Description

2.1 Program Area

The Program would occur in various locations within the state of California at licensed medical cannabis cultivation sites, and at sites implementing the track and trace system.

2.2 Program Purpose

The overall purpose of CDFA's Program is to establish a regulatory licensing program that would ensure that medical cannabis cultivation operations would be performed in a manner that protects the environment, cannabis cultivation workers, and the general public from the individual and cumulative effects of these operations, and fully complies with all applicable laws. An additional Program purpose is to establish a track and trace program to
ensure the movement of medical marijuana items are tracked throughout the production chain.

### 2.3 Program Objectives

The regulations will be developed to achieve the following objectives:

- Establish minimum requirements for indoor, outdoor, and mixed light medical cannabis cultivation operations that must be achieved by cultivators in order to obtain a cultivation license from CDFA;
- Establish a limit on the quantity of licenses issued for the Type 3, 3A, and 3B cultivation categories;
- 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;
- Ensure that cultivation will not negatively impact springs, riparian wetlands, and aquatic habitats;
- Require that cannabis cultivation by licensees is conducted in accordance with state and local laws related to land conversion, grading, electricity usage, water usage, water quality, woodland and riparian habitat protection, agricultural discharges, and similar matters;
- Establish procedures for the issuance and revocation of unique identifiers for activities associated with a cannabis cultivation license;
- Prescribe standards for the reporting of information as necessary related to unique identifiers;
- Establish a scale of application, licensing, and renewal fees, based upon the cost of administering and enforcing the Program; and
- Develop a cultivation checklist tool that can be used by CDFA, other agencies, and local governments to evaluate environmental impacts of cannabis cultivation license programs.

### 2.4 Preliminary Regulations

A table of contents and an outline of CDFA’s preliminary regulations are attached to this notice.

### 3. CEQA Process

#### 3.1 Notice of Preparation

This Notice of Preparation (NOP) presents general background information on the Program, the scoping and larger CEQA process, and the environmental issues to be addressed in the PEIR. CDFA has prepared this NOP pursuant to CEQA Guidelines section 15082.
3.2 Scoping Workshops

In order for the public and regulatory agencies to have an opportunity to ask questions and submit comments on the scope of the EIR, public scoping workshops will be held during the NOP review period. Because the Statewide Program is a “project of statewide, regional, or areawide significance,” the scoping workshops will be conducted in eight different locations throughout the State. The scoping workshops will solicit input from the public and interested public agencies regarding the nature and scope of environmental impacts to be addressed in the Draft EIR.

All eight workshops will use the same format and interested parties may attend one or all meetings. Oral comments will be noted and considered at the workshops, and written comments will be accepted both during the workshops as well as anytime during the 30-day scoping period. Comment forms will be available at the scoping workshops for those who wish to submit written comments during or at the workshop.

The dates, times, and exact locations of the public scoping workshops are scheduled for:

- September 13th, 2016, 4 – 7 PM
  Sacramento Convention Center
  1400 J Street, Room 202
  Sacramento, CA 95814
- September 21st, 2016, 4 – 7 PM
  Courtyard by Marriott (Grand Ballroom)
  1605 Calle Joaquin
  San Luis Obispo, CA 93405
- September 14th, 2016, 4 – 7 PM
  Red Lion Hotel (Sierra Room)
  1830 Hilltop Drive
  Redding, CA 96002
- September 22nd, 2016, 4 – 7 PM
  Harris Ranch (Garden Ballroom)
  24505 West Dorris Ave
  Coalinga, CA 93210
- September 15th, 2016, 4 – 7 PM
  Red Lion Hotel (Pacific Room)
  1929 4th Street
  Eureka, CA 95501
- September 27th, 2016, 4 – 7 PM
  Pasadena Convention Center (Ballroom F)
  300 East Green Street
  Pasadena, CA 91101
- September 20th, 2016, 4 – 7 PM
  Oakland Marriott (Skyline Room)
  1001 Broadway
  Oakland, CA 94607
- September 28th, 2016, 4 – 7 PM
  Miracle Springs Resort and Spa (Mirage Ballroom)
  10625 Palm Drive
  Desert Hot Springs, CA 92240

This scoping workshop information has also been published in Eureka Times Standard, Redding Record Searchlight, Sacramento Bee, San Francisco Chronicle, San Luis Obispo Tribune, Fresno Bee, Los Angeles Times, Riverside Press Enterprise and CDFA’s website (www.cdfa.ca.gov/is/mccp).
3.3 Draft PEIR

The primary purpose of a PEIR is to analyze and disclose the reasonably foreseeable direct and indirect environmental impacts that may occur as a result of the Program. The Draft PEIR, as informed by public and agency input through the scoping period, will analyze and disclose the potentially significant environmental impacts associated with the Program and, where any such impacts are significant, identify potentially feasible mitigation measures and alternatives that substantially lessen or avoid such effects will be identified and discussed.

Below is a preliminary list of potential environmental issues to be addressed in detail in the PEIR. The analysis in the Draft PEIR ultimately will determine whether these impacts are reasonably foreseeable, whether they are significant based on identified thresholds of significance, and whether they can be avoided or substantially lessened by potentially feasible mitigation measures and alternatives.

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Cumulative Impacts
- Irreversible Impacts

3.4 Public Review of the Draft PEIR

Once the Draft PEIR is completed, it will undergo public review for a minimum of 45 days. CDFA is also planning to hold public workshops during this public review period. The date, time, and exact location of the public workshops will be made available prior to the events.

3.5 Final PEIR

Written and oral comments received in response to the Draft PEIR will be addressed in a Response to Comments document which together with the Draft PEIR will constitute the Final PEIR. The Final PEIR, in turn, will inform CDFA’s exercise of discretion as a lead agency under CEQA in deciding whether to approve the Program.
4. Submittal of Scoping Comments

This NOP is being circulated to local, state, and federal agencies, and to interested organizations and individuals who may wish to review and comment on the Program or the Draft PEIR at this stage in the process. In addition, the NOP is available for review at the CDFA’s offices and on CDFA’s internet website (www.cdfa.ca.gov/is/mccp). Written comments concerning the scope and content of this PEIR are welcome.

Consistent with the time prescribed by State law for public review of an NOP, your response to and input regarding the project should be sent at the earliest possible date, but not later than September 30, 2016. Please include your name, address, and contact number for your agency as applicable for all future correspondence related to the Program. Written comments may be sent via email or letter to:

California Department of Food and Agriculture  
Attn: Amber Morris  
Medical Cannabis Cultivation Comments  
1220 N Street, Suite 400  
Sacramento, CA 95814

Email: mccp.peir@cdfa.ca.gov  
Subject Line: Medical Cannabis Cultivation Program Comments

PUBLICATION DATE: September 1, 2016  
Signature: Amber Morris

Attachment: Table of Contents and Outline of Preliminary Regulations
Cannabis is a Schedule I drug pursuant to the Controlled Substance Act 21 U.S.C. § 812. Activity related to cannabis use is subject to federal prosecution, regardless of the protections provided by State law.
Below is a detailed outline of the draft regulations to implement the Medical Cannabis Cultivation Program (MCCP), including licensing and “track and trace” program elements. Where necessary, the regulations will restate statutory requirements from the Medical Cannabis Regulations and Safety Act (MCRSA) for clarity.

DEFINITIONS: In addition to the statutory definitions provided by MCRSA, the MCCP will define the following terms:
- Canopy
- Flowering
- Immature
- Mixed-light cultivation
- Premises
- Propagate

APPLICATIONS FOR CULTIVATION LICENSES:
- General Application Information for Cultivation Licenses – Includes where to find application form, how to submit, and references sections for application component requirements and fees.
- Application Requirements: Licensees will have to provide the following, at a minimum, in order to be considered for a license:
  - Board of Equalization seller’s permit number
  - Proof of fingerprinting submission to the California Department of Justice
  - Copy of a local license, permit or other authorization from a local jurisdiction to cultivate, and related California Environmental Quality Act (CEQA) documentation
  - A cultivation plan detailing grow site dimensions, chemical use protocols, water source and storage, waste removal plan, security protocols, inventory tracking procedures, quality control procedures, product storage and labeling, and details regarding the method of compliance with applicable MCCP environmental requirements
  - Proof of the legal right to occupy the proposed cultivation site
  - Proof of a bond in the amount of $25,000
  - If applicable, copy of a valid Fish and Game Code section 1602 lake or streambed alteration agreement or written verification from the Department of Fish and Wildlife that an agreement is not required
  - If applicable, approval of water diversion and water rights
  - If applicable, a certificate of rehabilitation for a conviction

Applicants will also need to attest to the following:
- A license is only valid for the single, identified location
- The proposed location is located beyond a 600-foot radius from a school
- The applicant is not a licensed retailer of alcoholic beverages
- The applicant is an “agricultural employer”
- For an applicant with 20 or more employees, the applicant will enter into a Labor Peace Agreement
- Comply with prohibition of weapons and firearm at the cultivation site
- Under penalty of perjury, the information in the application is complete, true and accurate; the applicant has read and is familiar with all applicable laws and regulations
Incomplete Applications – Inform applicants if application is incomplete and provide a timeframe to submit missing information.

Application Processing Fee Schedule – Provide fee requirements when submitting applications. This fee will be non-refundable and will pay for resources necessary to process applications.

Application Pay Method – Specify the accepted method of payments and location(s) where payments can be made.

LICENSING:

License Types: Specifies license types as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Outdoor (no artificial light)</th>
<th>Indoor (exclusively artificial light)</th>
<th>Mixed-light (combo of natural &amp; supplemental artificial light)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialty Cultivator</td>
<td>Type 1 Up to 5,000 sq ft, or up to 50 mature plants on noncontiguous plots</td>
<td>Type 1a Up to 5,000 sq ft</td>
<td>Type 1b Up to 5,000 sq ft</td>
</tr>
<tr>
<td>Small Cultivator</td>
<td>Type 2 5,001 - 10,000 sq ft</td>
<td>Type 2a 5,001 - 10,000 sq ft</td>
<td>Type 2b 5,001 - 10,000 sq ft</td>
</tr>
<tr>
<td>Cultivator</td>
<td>Type 3 10,001 sq ft to one acre</td>
<td>Type 3a 10,001 - 22,000 sq ft</td>
<td>Type 3b 10,001 - 22,000 sq ft</td>
</tr>
<tr>
<td>Nursery</td>
<td>Type 4 Up to one acre</td>
<td>Type 4 Up to one acre</td>
<td>Type 4 Up to one acre</td>
</tr>
</tbody>
</table>

License Allowances and Constraints –
- Clarifies allowable license combinations.
- Multiple cultivation licenses may be obtained by one applicant, but total canopy cannot exceed four acres.

License Denial – Failure to comply with application requirements will result in MCCP denying the license.

Petition of License Denial – Procedure by which the decision to deny the license can be reviewed; must file the petition within 30 days.

License Renewal – Cannabis cultivation licenses must be renewed annually. Renewal applications must be received 100 days prior to expiration of license.

License Fee Schedule – Fees will be based on license type, fees have not yet been determined.

CULTIVATION REQUIREMENTS:
- Requirements for All License Types –
  - Environmental Management Measures and Best Management Practices: Any relevant environmental management measures and best management practice requirements included in the regulations, or determined by the environmental impact report (EIR), shall be included in a license for cultivation.
  - Water: Requires compliance with applicable principles, guidelines and requirements established by the State Water Resources Control Board.
  - Waste Discharges: Requires compliance with applicable general orders issued by the Regional Water Quality Control Boards or State Water Resources Control Board, or in regions where no general order exists, individual Waste Discharge Requirements from the applicable Regional Water Quality Control Board.
Wildlife (aquatic): Requires compliance with Department of Fish and Wildlife guidelines and laws to ensure that individual and cumulative effects of water diversion and discharge of cannabis cultivation operations do not affect instream flows needed for fish spawning, migration and rearing.

Wildlife (general): Requires compliance with the California Endangered Species Act, including possession of an Incidental Take Permit from the Department of Fish and Wildlife, if the cultivation operation has the potential to result in "take" of a species listed as threatened or endangered.

Pesticides: Requires the Department of Pesticide Regulation (DPR) to develop guidelines for the use of pesticides in the cultivation of cannabis. DPR is also required to ensure that the application of pesticides in connection with indoor or outdoor cannabis cultivation is compliant with existing pesticide use laws. Use of pesticides may be further limited based on the EIR.

- **Indoor License Types** – Lighting, building, ventilation requirements as determined necessary and feasible to mitigate environmental impacts by the EIR.
- **Mixed Light License Types** – Additional requirements as determined necessary and feasible by the EIR.
- **Outdoor License Types** - Additional requirements as determined necessary and feasible by the EIR.
- **Cannabis Nurseries** - Additional requirements as determined necessary and feasible by the EIR.

**TRACK & TRACE PROGRAM:**
- **Unique Identifiers** – Every plant greater than 8 inches in height must receive a unique identifier. The MCCP, in collaboration with several departments, is still determining the form of the unique identifier.
- **Tracking System** – The MCCP shall implement a system for tracking unique identifiers; licensees shall report movement of cannabis through the tracking system.
- **Reporting Requirements** – Specific information including but not limited to quantity, weight, variety, estimated times of departure and arrival, licensee receiving product, and transaction date are required.

**INSPECTIONS:**
- Inspections include review of records and inspection of the cultivation site(s); identifies site safety conditions for inspection, inspection hours; specifies time frame in which records must be provided.

**ENFORCEMENT:**
- **License Violations** – CDFA will have two years from the date of the violation within which to bring an administrative action to suspend, revoke or other disciplinary action for the violation.
- **Administrative Hold Procedure** – To prevent the destruction of evidence, diversion, and threats to public safety, cannabis or cannabis products may be placed under a hold. Licensees shall segregate the items on hold so that they are secure.
- **Voluntary Surrender of Cannabis or Cannabis Product** – Procedure allowing licensee to surrender cannabis or cannabis products prior to the completion of an investigation. The
cannabis or cannabis products surrendered will be destroyed. Does not waive a licensee’s right to a hearing.

- **Completed Investigations** – Upon completing an investigation, CDFA shall determine if the violation occurred and if so, what the appropriate penalty should be.

- **Minor, Moderate, Serious violations** – The MCCP will provide for penalties to be assessed based on the severity of a violation of license requirements or other regulatory provisions. Penalties will range from fines to license suspension or revocation.

- **Appeal Process** – Licensees will have 30 days to appeal any violation issued. Appeals shall be submitted to CDFA’s Office of Hearings and Appeals. Licensees may request a formal hearing. Formal hearings will be conducted by a hearing officer designated by CDFA. A decision shall be issued within 14 days after the conclusion of the hearing.
Hello. Here is my public comment for the survey. Thank you for giving me the opportunity for public comment.

This is the first five goals. We really did not have an opinion on the last two.

Best of luck,
To: Medical Cannabis Cultivation Program Staff

Re: Pre-Regulation Workshop Survey

Regulatory Goal #1

- Canopy – The total area designated for cannabis plants to be grown. Cultivators should have detailed maps of their grow area reflecting their canopy. For example, if growing in soil in 100-gallon pots each plant is given a certain square footage. The total canopy should be calculated by adding the square footage allotted to each plant.
- Flowering - plants that show visible signs of cannabis flower (bud) growth.
- Mixed light cultivation - using one primary light source, usually the sun, and a supplemental source to achieve the desired time of light needed for cultivation.
- Propagate – when a cultivator produces his or her own seeds or clones.

Regulatory Goal #2

- We plan to file our application online.
- I support a firearm ban at cultivation sites except ones carried by a security guard, if a business chooses to hire one.
- Depending on how the regulations end up will determine how many applications we will apply for. But currently we plan on submitting two.

Regulatory Goal #3

- We feel four acres is a relatively reasonable cap for total outdoor canopy along with three for mixed light and two for indoors.
- We cannot anticipate how it will affect our business model because our model, like everyone else’s, will be dictated by local regulations that have not been written.
- Including pre rolls, dry sieving, water concentration, and even resin extraction through heat and pressure (rosin) is an idea we fully support.
- A cultivator should need a manufacturing device if they plan on using a solvent like carbon dioxide or hydrocarbons to extract the resin.
- We plan on applying for license type 2B.
- The number of light a mixed light facility would need is dependent on its location, sun exposure and size. We have no opinion on the number of lights needed.
- The fairest method for establishing Type 3 license limits would be on a per county basis.

Regulatory Goal #4

- It is our goal to operate as sustainably as possible to lessen the environmental impact. We have implemented an integrated pest
management system and preventative measures over targeted pesticide. We are trending towards a natural farming approach which includes making all of our own fertilizers. We do not use bottled nutrients and will NEVER spray synthetic chemical pesticides on our plants. We use optimal watering times and the run off is recycled and used to water our compost bin.

- Our property is completely fenced in. We have a pair of security guards of the four-legged variety that patrol the property. We have had no security issues with two pit bulls on the premises.
- We regularly propagate from seed and have not sold plants to a patient or dispensary although we plan to in the coming year.

I cannot stress the importance to allow a cultivator to propagate their own seeds and produce their own clones. Besides growing methods this is what really sets cultivators apart from one another. Specific phenotypes or a grower’s own seeds that they crossed themselves can offer a competitive advantage, especially to the smaller cannabis farmer that cannot compete on price and volume.

If all cultivators were forced to purchase their clones from a nursery it would create several problems. First, many cultivators with their own genetics would remain in the black market because they want to continue to grow their own genetics, not third party genetics that were forced on them. Second, it is an extremely expensive and unnecessary cost to force cultivators to buy their plant stock from a nursery. We farm organically and have a strict clone and propagation regiment that doesn’t include any rooting hormones or growth boosters. If there are no organic nurseries in our area would we have to travel and find a nursery that meets our requirements? What if that nursery does not exist?

Additionally, it would give nurseries a monopoly on providing genetics to cultivators. I support the nursery option but it should absolutely not be mandatory. We understand concerns over pathogens and contaminated genetics but clone providers are one of the largest perpetrators in spreading bugs in the industry. And finally, the strain varietals available to patients would be severely limited if cultivators had to buy their clone stock from a nursery. The only genetics available would be the ones provided by nurseries.

**Regulatory Goal #5**

- We do not understand how a site would not be safe for inspection. If it is not safe for inspection it should not be safe to grow cannabis.
- We keep detailed watering/feeding records including time of day, quantity and ingredients used in the compost tea or plant extract used to feed the plants.
From: Rains, Lindsay@CDFA on behalf of CDFA Medical Cannabis Cultivation Program@CDFA
To: MCCP_PEIR, CDFA@CDFA
Subject: FW: CDFA requests your input on the Medical Cannabis Cultivation Program
Date: Friday, September 30, 2016 3:58:41 PM
Attachments: CDFA Survey Sept 2016 FINAL.docx

From: Sent: Monday, September 26, 2016 1:34 PM
To: CDFA Medical Cannabis Cultivation Program@CDFA
Cc: Subject: Re: CDFA requests your input on the Medical Cannabis Cultivation Program

Thank you for the opportunity to have input regarding questions posed by CDFA in development of nascent regulations. Please find attached our document with itemised responses to the questions CDFA provided on Sept. 7, 2016.

Sincerely,

[Author Name]
CSO, Segra Biogenesis Corp.

From: cdaf.mccp@cdfa.ca.gov <cdfa.mccp@cdfa.ca.gov>
Sent: September 7, 2016 12:33 PM
To: Subject: CDFA requests your input on the Medical Cannabis Cultivation Program

CDFA needs your input. We are conducting preliminary activities to draft regulations for statewide commercial medical cannabis licensing. There are several areas of the draft regulations that would benefit from industry, public, and government agency input. To help us as we develop regulations, we have put together a number of questions for your valuable input. Please take a moment to review the questions and provide your insights by submitting your written response. Comments can be submitted by email (cdaf.mccp@cdfa.ca.gov) or by mail to:
Department of Food and Agriculture
MCCP
1220 N Street, Suite 400
Sacramento, CA 95814

CDFA will review and consider your comments to help develop the regulations for our Program. Please provide your comments by September 30th to allow the Program ample time to consider them. Comments received after September 30th will be considered as time permits.
If you are interested in learning more about MCCP, please visit our website.

Thank you,
-MCCP team
**Question 1:** The Program will need to define terms not defined by the MCRSA such as canopy, flowering, immature, mixed light cultivation, premises and propagate to ensure regulations are implemented uniformly across the state. What do these terms mean to you?

We would suggest the following definitions:

**Canopy:** The square footage occupied per tracked plant* as seen “top-down”. Generally, plant spacings will be fixed for different growth stages, such as immature plantlets (4 per sq. ft., or each plant thus occupying ~0.25 sq. ft. of canopy) through to mature plants – depending on strain and growth protocols, this might be on the range of 4-9 sq. ft. per plant. This approach allows for efficient use of licensed space; a maximal area can be allocated for full-size plants, with a smaller area being used for denser clustering of the appropriate number of immature plants needed to occupy the ‘mature’ space as crop batch rotation occurs.

*Note that we would suggest that “tracked plant” in this context be taken to refer only to those cannabis plants having reached appropriate size to be individually recorded within the proposed track and trace system; presumably, something about the 6-8” size as individual plantlets. Please see our response to 6B in this context.

**Flowering:** the plant stage triggered by a significant daily dark-period cycle, and/or naturally occurring (e.g. in ‘Autoflower’ strains) and characterized by the appearance of flowers.

**Mixed Light Cultivation:** Any cultivation system with a transparent or open roof, coupled with artificial grow lights used to compensate for undesired low light periods.

**Premises:** The legal description of the property within a security perimeter used for the cultivation.

**Propagate:** To create new juvenile plants via cutting, seeding, cloning, or tissue culture.

**Question 2A:** The Program is considering using an online application process, as well as a traditional paper method. Which application method would you prefer?

We would prefer the traceability and uniformity imposed by an online process, but would caveat that by suggesting it have the ability to append text and/or PDF documents as needed to support responses to particular sections (such as examples of SOPs).

**Question 2B:** The Program is considering a weapons and firearm ban at cultivation sites to protect State enforcement staff. How will that affect you?

*We do not envision allowing staff to carry firearms or other weapons at the workplace. As a proposed tissue culture based nursery (Type 4) applicant, our facility would require stringent contamination control measures (clean facility-internal-only garb and wearing PPE as required) in most facility sections. Carrying external items including firearms which may act as a potential pathogen vector would not be permitted by our SOPs.*

**Question 2C:** How many applications do you anticipate submitting?
We envision submitting a single Type 4 license application in cooperation with an in-state partner.

**Question 3A:** What is the acreage you feel is reasonable for the cap?

*We have no strong opinions on this, if canopy is not taken as applying to tissue culture plantlets in Stage I/II/III tissue culture (i.e., prior to introduction to Track and Trace; see reply to 1*

**Question 3B:** How about for indoor and mixed light?

*We have no strong opinion on this.*

**Question 3C:** How will this impact your business model?

*If space for tissue culture plantlets pre-introduction to Track and Trace is not part of the canopy space calculation, we do not see this having a direct impact on our proposed Type 4 application model.*

**Question 3D:** Are joints, dry sieving, and water concentrating a form of manufacturing or within the scope of cultivation?

*While we do not think this question is directly pertinent to our proposed Type 4 application, we feel that any process which modifies and/or adds material substances to cultivation product may need to be subject to administrative hold or other recall process on a batch level to ensure public safety. This requires appropriate batch/lot control, records, and traceability. From this perspective while we feel cultivators produce dried flower and other plant byproducts such as trim, we believe further processing of these raw materials such as the forms in the question are best prepared in an environment specifically focused on manufacturing QC, lot / batch control, and traceability. We thus feel these types of products should not be produced by cultivators and should be under a Type 6/7 license.*

**Question 3E:** What size cultivation site(s) do you anticipate applying for initially?

*Our entire proposed design for a Type 4 license facility would be approximately 36,000 sq. ft. with approximately 5000 sq. ft. of this being allocated for Stage 4 plantlets (i.e., rooted juvenile plants in soil up to ~6-8” plant height). The remainder of the space is allocated to Stage 1, 2, and 3 (pre-root formation) tissue culture and infrastructure and support for tissue culture propagation.*

**Question 3F:** How many separately licensed cultivation sites would you like to apply for?

*We envision a single Type 4 application with an in-state partner at this time.*

**Question 3G:** What do you think is a reasonable amount of lighting to be used and still be considered a mixed

*We have no valid opinions on this and do not think it applies to Type 4 licenses.*

**Question 3H:** The Program is required to limit the number of Type 3 (largest license type) licenses issued. What method do you consider fair for establishing these limits?
We would suggest that at outset, no more than 25% of predicted market capacity be allocated to Type 3 licenses. If and when there is an increase in market demand, we would further suggest that additional Type 3 license capacity to the 25% level could preferentially issued in the form of application for production expansion from existing Type 1 and/or Type 2 license holders. This would allow evaluation of the applicants’ track records with regard to regulatory compliance and product quality as a factor in determining whom to allow to expand.

**Question 4A:** How do you currently address potential environmental impacts at a cultivation site?

Our proposal addresses environmental impact through assessment of water use, maximizing water reclamation, and drainage mitigation strategies to avoid aquifer eutrophication. Details of these including SOPs and associated building architectural and engineering parameters would be developed in consultation with professional hydrologists and ecologists and would constitute part of our proposed Type 4 license application.

**Question 4B:** Do you conduct targeted pesticide use?

We envision using limited amounts of pesticidal products as allowed under regulations in development. By design, our facility and SOPs would focus on preventing pathogen ingress as a primary line of pest control. This is both more efficacious than post-establishment mitigation, and reduces pesticide use.

**Question 4C:** Do you use optimal watering times?

Yes. Most of our water use systems will be closed loop with reclamation.

**Question 4D:** Do you recycle water and/or cultivation materials?

Yes, we plan on enacting water conservation measures.

For irrigation, we will use a closed water circulation system; water is circulated from central tanks to cell trays and back again to the tank through sterilizable 100 mesh (150 micron) filtration discs. This recollected water is processed through a UV sterilization chamfer prior to reuse for irrigation and only a few percent of the irrigation water is incorporated into plantlets or absorbed by the substrate in the cell trays. For each cycle, approximately 98% of the water is returned to the central tanks. Some of the water passing through the plantlet is let off through transpiration and some of the water absorbed into the substrate will evaporate into the room atmosphere. The majority of this water condenses in the coils of the room HVAC and is collected, filtered, and reused as irrigation water.

**Question 4E:** How do you currently secure your cultivation site? Alarm system? Fencing? Security guard?

We would propose use of an alarmed perimeter system including personalized access codes to cannabis containing areas, 24/7 video monitoring/recording of cannabis containing areas, and monitored intrusion alarms. We do not envision on-site security for a Type 4 facility.
Question 4F: The Program will also have specific requirements for cannabis nurseries. Do you sell plants to a dispensary for sale to patients? Or do you sell plants to cultivators for flower production?

We primarily envision bulk sale of immature tissue culture derived plantlets to cultivators (Types 1, 2, & 3 license holders). If allowed within the regulations, we would be amenable to sale of immature Stage 4 plantlets to dispensaries as well, intended for resale to individual customers.

Question 4G: How much research and development goes on at a nursery site?

We envision significant amounts of R&D with regard to strain specific optimization of tissue culture methodologies, as well as through the development and use of genetic analysis technologies to assist in strain identification, strain drift detection, Marker Assisted Selection protocols, and chemotype/genotype correlative studies.

Question 4H: Do you regularly propagate from seed?

This is not envisioned as our primary propagation method, due to individual genetic variation that occurs between seeds. We would expect to do some seed propagation in support of directed strain hybridization / strain development research.

Question 5A: What measures do you currently take to make your site safe for inspection?

We would propose a facility and associated SOPs which would ensure the facility is safe for inspection at any time during normal operating hours; this would include defined visitor/inspection orientation protocols, detailed site plans with PPE zones indicated, availability of appropriate PPE at all times, and making senior staff available to accompany inspectors at any time during normal work hours. Our SOPs will be actively reviewed for, and kept in compliance with, all applicable state health and safety regulations. We will maintain, and maintain all staff currently trained in, those facility SOPs pertaining to health and safety.

Question 5B: What type of records do you currently retain?

We envision retaining the following records for a minimum of 7 years:

- Complete records of each strain in storage or cultivation at any stage;
- Employee training records;
- Full batch records (e.g. tissue culture staging; media lots used; fertigation dates, amounts, times;
- transplanting dates and operators; and QC test records on all raw materials used in propagation;
- Full details of waste disposition and disposal;
- Records of environmental control including air quality and markers for pathogen ingress;
- Change Records of facility systems;
- Document Control records allowing the unequivocal identification of those SOP(s) in use for any given plant or plant batch;
- Sanitation records;
- Pesticide Use records
- Records pertaining to the introduction of individual immature plants into the Track and Trace system;
- Outgoing product QC records;
- Full records of each sale of individually tracked plants to a customer (customer ID, date, time, shipment method and details)
- Any other records as stipulated by the finalized CFDA regulations

**Question 6A:** What is the current flow of cultivation at your site?

We would propose to bring in cuttings of desirable strains; utilise these for the initiation of tissue culture material, including genotypic analysis and banking for strain identification and future comparison; Stage I, II, III, and IV tissue culture with batch definition occurring at Stage III amplification of plant material for order fulfilment; introduction of Stage IV plantlets to the Track and Trace system; final product QC; and release for shipping / shipping of batch of tracked, Stage IV plantlets to customer.

We expect a throughput capacity of ~3-5M Stage IV plantlets per year.

**Question 6B:** At what points in the cultivation process do you think movement tracking would be valuable (planting, moving from veg area to flowering area, harvest, etc.)?

As a nursery based around tissue culture methods, we believe the most logical point for plant introduction to Track and Trace would be at the Stage III (microscopic plant in synthetic media) to Stage IV (individual small plants in soil media, for growth to 6-8” tall). Prior to this transfer, tissue culture plantlets would be in large groups within sealed culture containers and not suitable for individual tracking. Containers would be subject to in-facility tracking by QR code or barcode including details of strain, growth stage, date of stage initiation, and identity of plant tech performing the operations.

**Question 7A:** What would a reasonable time-frame for conducting a hearing regarding a violation?

We suggest 90 days.

**Question 7B:** What type of license violation would you consider minor? Moderate? Serious?

*Minor:* deviations from production SOPs with potential impact on product quality and/or safety which were self-detected/ reported, and where clear Corrective and Preventative Action (CAPA) activities have been undertaken to avoid recurrence.

*Moderate:* deviations from production SOPs with potential impact on product quality and/or safety which were not self-detected/ reported; or which were self-detected but no CAPA activities have been undertaken to avoid recurrence.

*Serious:* unrecorded sale of product or sale to unauthorized purchaser
From: [Name]@CDFA on behalf of CDFA Medical Cannabis Cultivation Program@CDFA
To: MCCP_PEIR_CDFA@CDFA
Subject: FW: CDFA requests your input on the Medical Cannabis Cultivation Program
Date: Friday, September 30, 2016 3:59:19 PM
Attachments: CDFA MCCP Question Response.docx

From: [Name]
Sent: Tuesday, September 27, 2016 11:03 AM
To: CDFA Medical Cannabis Cultivation Program@CDFA
Subject: Re: CDFA requests your input on the Medical Cannabis Cultivation Program

Hello,

Please find my response to your questions attached.

Sincerely,

On Wed, Sep 7, 2016 at 12:34 PM <cdfa.mccp@cdfa.ca.gov> wrote:

CDFA needs your input. We are conducting preliminary activities to draft regulations for statewide commercial medical cannabis licensing. There are several areas of the draft regulations that would benefit from industry, public, and government agency input. To help us as we develop regulations, we have put together a number of questions for your valuable input. Please take a moment to review the questions and provide your insights by submitting your written response. Comments can be submitted by email (cdfa.mccp@cdfa.ca.gov) or by mail to:

Department of Food and Agriculture

MCCP

1220 N Street, Suite 400

Sacramento, CA 95814

CDFA will review and consider your comments to help develop the regulations for our Program. Please provide your comments by September 30th to allow the Program ample time to consider them. Comments received after September 30th will be considered as time permits.

If you are interested in learning more about MCCP, please visit our website.

Thank you,

-MCCP team
Regulatory Goal #1

Definitions

- Canopy: The sum of all areas with clearly defined boundaries that contain vegetative and flowering plants.
- Flowering: Any plants grown with less than 18 hours of light.
- Immature: Any plants grown with 18 or more hours of light.
- Mixed-Light Cultivation: Any cultivation that occurs with both natural and artificial lighting.
- Premises: The physical boundaries of a business operated by a licensee.
- Propagate: The growth of plants in any form.

Regulatory Goal #2

Application Process

- We will prefer an online application.
- Agriculture is concentrated in rural settings where coyotes, wild boar, and other wildlife are a threat to livestock and children. Additionally, agriculture normally occurs on large parcels, much larger than will be permitted under the proposed license canopy caps. Given these considerations, it is reasonable to ban firearms within the business premises, but it is unacceptable to ban firearms from residences and other agricultural business activities on the same parcel.
- We will be submitting applications for nursery, indoor, mixed-light, and outdoor licenses.
Regulatory Goal #3

*Cultivation License Types*

- We will be applying for the Type 10A dispensary license, which allows up to four acres of canopy of any kind as well as manufacturing. We do not believe there should be any canopy caps. It is environmentally irresponsible to allow four acre indoor grows. Only mixed light and outdoor should be encouraged at scale. As a farmer’s rights issue, manufacturing of all kinds should be included in a cultivation license, allowing the farmer to produce value added goods.

- We will be applying for one site of just under four acres of outdoor canopy and at that same site we will have a nursery, small indoor cultivation for research and development, and a mixed-light greenhouse.

- We should let economics and supply and demand determine lighting requirements. If a mixed-light farmer doesn’t know how to use the sun to their benefit, they will incur high costs and not be competitive.

- There should be no limits of any kind unless your plan is to allow for monopolies. Set the limit high, like 100 million. That way the market is fair. Anything else is rigging the system. This provision is illogical in the greater context of the act. Place canopy caps on an infinite group of licensees but allow a select few to grow at unlimited scale? Farming is an industry that achieves economies of scale as can be seen throughout the Central Valley. For this industry to be successful all operators should be encouraged to grow as large as they can in order to achieve these efficiency increases, otherwise everyone will go out of business and the few with unlimited canopies will be left standing. Have economists determined that four acres is a magical number allowing for unlimited success for operators? Were the other license caps determined by economists? Are there projections for revenues, expenses, and profits required for each license type to be economically viable over the next decade? Not that I have seen. These caps are arbitrary and will hurt the entire industry. Only the operators with the largest possible canopies will survive. This is farming.

Regulatory Goal #4
Environment, Health, and Public Safety

- We use drip irrigation, plastic mulch beds with native soils, hoop-houses, and responsible integrated pest management practices. We use optimal watering times and we recycle all possible waste materials.

- Our entire property is fenced and gated with a blacked-out sub-fence around any outdoor cultivation. All buildings are alarmed, we have cameras on all sensitive areas, and we have staff on site 24/7.

- We are a vertically integrated farm and mobile dispensary so our nursery sells starts directly to other farmers in the region for flower production. We have the most advanced Cannabis research facility in the state of California. Our CSO is a PhD Plant Biotechnologist. We utilize tissue culture in our nursery and we are applying DNA Sequencing and mathematical modeling to our breeding program in order to identify markers in the Cannabis genome that code for specific phenotypic traits. We do propagate from seed regularly, but given the underground nature of this industry, very few seed varieties, and their corresponding Inbred Line parents, have been developed, forcing most propagation to occur through cloning and tissue culture. Producing true Hybrid F1 seed lines is a long term goal of our business.

Regulatory Goal #5

Cultivator Compliance

- We follow strict safety guidelines for chemicals, pesticides, fungicides, and fertilizers on a daily basis and do not allow firearms on the cultivation premises.

- We keep records of organic pesticide and fungicide use. We are also implementing a seed to sale tracking system which records the number of plants on the premises, their state and location, and all material being processed and stored before it goes to market.

Regulatory Goal #6

Track and Trace
We track our plants once they are transplanted from clone to a small pot. This generally marks the point at which the clone has enough roots to begin vegetative growth. After this point each plant has a unique identifier and can be tracked through harvest and processing to final sale.

Regulatory Goal #7

Violations and Penalties

- Hearings and opportunities for licensees to defend themselves cannot come too soon in the process.

- Minor
  - 1% or less of excess canopy from license cap

- Serious
  - 5+% excess canopy from license cap
Good afternoon,

Our client has prepared public comments in response to CDFA and MCCP’s draft cultivation regulations and regulatory goals, for the program’s consideration. If you have any questions, please do not hesitate to contact our office.

Best regards, Jolene
Regulatory Goal #1

DEFINE TERMS USED IN CANNABIS CULTIVATION

The Program will need to define terms not defined by the MCRSA such as canopy, flowering, immature, mixed light cultivation, premises and propagate to ensure regulations are implemented uniformly across the state. What do these terms mean to you?

Canopy: The general square foot area occupied for the growing of cannabis per permitted size of license. For outdoor I would think an area of land such as 30 feet by 60 feet would be considered a total area 1800 feet of canopy. For indoor an example could be a farmer using a building that was 100 feet long and 40 feet wide as the total size of the building would be 4000 sq feet. I would think that the actual inside dimensions where cannabis is grown should be considered the canopy. Other parts of the building would be used for storage of items related to growing would not be counted as canopy. So if the building has a dedicated area of where plants are growing should be considered the canopy. So if there were 2 rooms that are 38 feet wide and 25 feet long each area would be 950 feet of canopy for a total of 1900 feet of canopy. The other areas should not be considered canopy.

It should be noted that a canopy size of 2500 square feet could easily contain up to 400 flowering plants in an indoor set up.

With track and trace this would not be a problem keeping track. For example, a smart grower wanting a higher yield could have a plant to harvest cycle take only 2 months with plant heights less than 3 to 4 feet. To limit 50 plants per site may end up not creating a profit for the farmers.

Flowering: The stage when cannabis begins to send out white hairs and form buds or flowers. This flowering stage is usually measured in weeks. Cannabis varieties vary in length of time from the day the first white hairs appear to the final ripening or harvest. This time could be from 7 weeks to as long as 20 weeks.

Immature: I would think this would be the time period before flowering which again varies on varietal. Also called the vegetation stage. If one is using seeds these usually germinate within 4 to 9 days. If one is using clones which are cuttings from a mother plant are usually rooted in a sterile material which are then provided a root growing hormone and placed under low intensity lighting up to 18 hours per day to encourage vigorous root development. This time period can be anywhere from 0 days to up to 4 weeks I would call this the cloning stage. When the plants reaching about 4 to 8 inches these clones are then transplanted into larger size pots. From the time of the first transplant to flowering I would call this stage immature stage or vegging.

Mixed Light Cultivation: Could be a number of methods that use natural sun light and artificial lighting indoors or outdoors depending on the set up. If one had a greenhouse that also was constructed for light deprivation this would certainly be mixed light cultivation. In order to save on energy costs some farmers could use the green house for the vegging stage and when the plants reach a certain height they could be moved indoors for light control to force into flowering.
**Premises:** It seems wise that cultivation/farming should not be a problem for other contiguous property owners right to use their premises as zoned. For example, in high density areas where many homes are located in sub-divisions many contiguous, owners could very well object to the odors generated from cannabis during the flowering stage for outdoor growing. But indoor farming could be mitigated with a proper set up by using carbon filters to totally eliminate odors. One would also think it wise to not have plants in view of children or others. So if your plants are growing over the 6 foot fencing it could be a problem and the fence should be raised or super cropping methods should be applied so plants are not higher than 6 feet.

For rural sites one would think that if the site was located on a 1 acre minimum or 43,560 feet that many things could be done to create privacy for outdoor cultivation. For example, in Sonoma county there are 1000's of properties outside the city limits that could adequately have canopy sizes of 2500 to 5000 square feet. On sites of larger acres there are many parcels that say for example were originally 40 acres and then sub divided into 3 to 5 acre sizes with many homes not being able to see or hear neighbors.

**Propagate:** Breed specimens of (a plant, animal, etc.) by natural processes from the parent stock. We propagate by making clones from existing plants that have qualities end users are looking for. We also try to make clones that resistant to problems such as mold, fungus, root issues, larger flowers resistant to bud rot, insects, mites, caterpillars. Stems and stalks that resist breaking when flowering.
Regulatory Goal #2

DEFINE THE APPLICATION PROCESS AND REQUIREMENTS FOR LICENSING

The Program is considering using an online application process, as well as a traditional paper method. Which application method would you prefer?

The Program is considering a weapons and firearm ban at cultivation sites to protect State enforcement staff. How will that affect you?

Yes, this impacts my 2nd amendment rights. We are not criminals and police response to someone trying to rip off a crop in a remote area would be over 30 minutes or more and this would be devastating. Especially if they were armed and we are not. Banning guns is an open invitation to rip off growers and the cartels and criminals would know this. What doesn't make sense is allowing 3rd parties to be on our premises with guns and paying them while making the farmers criminals. Surely this will be contested as a sneaky way to ban guns. This adds unnecessary cost to a business and is plain illegal as it violates every citizen right to bear arms.

At a store or retail outlet it would make sense to have paid security staff and at unattended storage facilities. If the public knows that growers are armed there will be no crime.

The Program is planning to charge a non-refundable application processing fee to cover resources required to review the application components. In order to determine the application fee, the Program will need good estimates on how many cultivation applications are expected.

We saw the online projected number of applications around 80,000, and yes we would be included in that number as we completed the online survey.

Additionally, a modest fee of $200 per application would generate $16 million to cover review costs. I would think that any company, except of course the government could easily provide the necessary services to ensure quality permitting. I would hope that streamlining the process would be smart and not create a bunch a paper pushing useless waste and an environment of over regulation.

I would also like to say that taxation should be borne solely by the purchaser of the cannabis. Let the farmers make a profit and declare their income on tax returns like everyone else. These new tax payers have already demonstrated a willing to comply with tax law and have in fact created a state budget surplus for the State of Colorado. Don't be greedy and everyone wins.
Regulatory Goal #3

**IDENTIFY THE CULTIVATOR LICENSE TYPES BY LIGHT SOURCE AND SITE SIZE; CLARIFY ALLOWABLE LICENSE COMBINATIONS; OUTLINE RENEWAL PROCESS AND SET LICENSING FEES**

• **Licensees are prohibited from obtaining licenses from more than two license categories.** For example, a licensed manufacturer of cannabis products may also hold a cultivator license, but would not be allowed to then obtain a dispensary license. Additionally, the Program is considering issuing the same applicant several cultivator licenses as long as the total canopy does not exceed four acres.

Makes Perfect sense! This keeps big tobacco out of the market. My vision is for the state to allow boutique farmers to flourish similar to winery operations which has created steady jobs and allows existing home owners to participate in this this new industry. This would create Biodiversity which boosts ecosystem productivity where each species, no matter how small, all have an important role to play. For example, a larger number of plant species means a greater variety of crops. Greater species diversity ensures natural sustainability for all life forms.

The members of our cooperative/collective all have backgrounds in forestry practices. We regularly participate in voluntary county projects to restore our environment as time allows, by donating time and energy to state parks. We love to use our state/ local and county parks. Occasionally our hikes lead us to illegal grow sites which we have destroyed when found and reported to the officials who were grateful as they do not have enough personnel to monitor large wilderness areas.

**What is the acreage you feel is reasonable for the cap?**

The same applicant should be allowed to apply for multiple cultivator licenses, as long as the total canopy does not exceed 4 acres, with each location/premises to have less than 1 acre.

Multiple operators should be allowed to cultivate on the same parcel if the parcel size is large enough to accommodate multiple garden sites.

The size of the canopy allowed could be determined by the type of light source to be used and the resulting environmental impact of the lights on the property and surrounding neighbors. For example, indoor sites should be allowed to operate up to 1 acre, but a mixed light facility could only operate a 1 acre site if the light source will not negatively impact neighboring parcels.

**How about for indoor and mixed light?** Smaller areas from 100 square feet to as large as 10,000 feet would be sufficient for farmers. We need to keep the greed factor under control and create as many opportunities as possible for entrepreneurs.

**How will this impact your business model?** If adopting the limits of the above question. This would have no impact on our current operations as we have less than 2500 square feet of indoor and outdoor canopy.
When does a cultivator also need a manufacturing license? If they want to create products such as oils etc more plants are need to create a sufficient amounts of final products. So larger canopies would be required to make a profit. It should remain an option of the licensee.

Are joints, dry sieving, and water concentrating a form of manufacturing or within the scope of cultivation? In my opinion they go hand in hand. The process of taking the mature flower and trimming the excess away allows for making use of the entire plant. The trim excess is commonly known as shake. We currently sell this to someone who then manufactures oils, hash or other products of choice. Trim bins often create dry sieving when processing the flower and is a by-product. We just keep the dry sieved by-product for personal use. We create an ounce or less when processing 40 lbs of flowers and it not our focus to create more.

The Program is required to fully cover its operational costs through licensing and application fees. The Program anticipates analyzing and updating the licensing fees frequently as the industry changes over the next several years. What size cultivation site(s) do you anticipate applying for initially?

We have 3.85 acres and a total of 5000 square feet grow area we could expand to 10,000 feet of canopy. I hope will produce enough to pay the bills. We want a type 2 / 2A –

How many separately licensed cultivation sites would you like to apply for?

At this time only one license is needed for our site if only one license is available per parcel.

The Program is responsible for establishing the amount of artificial light units considered reasonable for a mixed light/light deprivation cultivation sites.

What do you think is a reasonable amount of lighting to be used and still be considered a mixed light cultivation site?

The short answer is operators should not exceed safe usage of the existing wiring in order to avoid any potential fire hazard.

Obviously using free sunshine is best year round. Yet plant cycles must meet certain requirements. X weeks to veg X weeks to flower. When a farmers uses less electrical that only make sense. So this question is hard to answer as it depends on the farmers goals and would vary from site to site. There is no right or wrong answer. We still have many unknown costs about to be applied. We don't know what fair market value of pound of cannabis will fetch. We don't know for sure what fixed cost are. All this new regulation could crush small operators out of existence and back into the black market, if they end up making 5 dollar per hour.
I would guess that this process should be based on the safe usage of electrical loads and current service provided by the utility. We have 200 amps. We have had an electrical contractor advise on the safe usage so as to not place any loads on existing residential services and upgraded wiring to accommodate using flip box system for indoor.

We currently have two small buildings on site.

1) 25' x 30' = 750 total canopy SQF indoor
2) 24' X 56' = 1400 total canopy SQF indoor
3) Outdoor mixed-light green house with light dep is 800 total canopy SQF
4) Outdoor next to greenhouse in pots 100% sun light area is 27' x 30' = 810 total canopy SQF

The Program is required to limit the number of Type 3 (largest license type) licenses issued. What method do you consider fair for establishing these limits?

We currently have NO ambition to apply for a Type 3 license and understand that the state is placing a moratorium on these types for 5 years so that the state can have a better idea on how to regulate these larger operations. This would also allow the smaller farmers enough time to work out any kinks that may arise.

Your answer above is confusing AUMA and MCRSA requirements. The unlimited canopy size allowed under AUMA will not be available for five years; the type 3 license type under MCRSA will be capped. The questions is how should they determine the most fair way to establish those limits – for my answer, I say that this should be dependent on the parcel size and availability of resources and environmental impact of project. You may want to revise your answer above.

Personally I think that the type 3 license should not be allowed. These types of licenses would create an unfair advantage on the smaller licensees. Type 3 could vastly flood the marketplace forcing the price downward yet the cost of production remains the same and squeezes the small farmer out of business. Smaller sites create the greatest opportunity for more business to thrive. It is wise to provide opportunity to the people of the state not just a few super large companies trying to control the entire marketplace. Small site operations would also provide the greatest diversity and economic opportunity to all minorities whom often come up with great products and innovative methods to improve production.

We currently have been losing jobs in the State of CA due to a variety of reasons not to mention over regulation from taxing and environment authorities. Everyone has their hand out reaching into the small business pocket. Who can afford health care with premiums doubling annually? If this is going to work, there must be a reasonable profit built into every business. Please don't kill the small guys as this gets off the ground, if the state over regulates it will force the continuation of illegal production.
Additionally, inspecting larger sites takes a lot of time and it would be easy to divert part of the crop to escape taxation etc. For example, if an inspector was looking at just one acre 43560 square feet for tags, it would be easy to hide approx. 10 to 20% of the crop. I have seen inspectors in other industries and most accept pay offs. Let’s not be too naive. If the crop was on 4 acres it would take days to inspect. If the parcel was larger it could take weeks.
**Regulatory Goal #4**

**SPECIFY REQUIREMENTS TO MITIGATE ENVIRONMENTAL HEALTH AND PUBLIC SAFETY ISSUES**

*The Program will require licensees to enter into a compliance agreement to reduce environmental impacts. How do you currently address potential environmental impacts at a cultivation site?*

First off we do not create environmental hazards. There are common sense approaches and plenty of existing laws for these issues. We understand that criminals do not care about these matters. One of the main reasons for permitting is to save our state from the bad guys

**Do you conduct targeted pesticide use?** Yes one approved by the state and that would pass laboratory inspections

**Do you use optimal watering times?** Yes we water with automated irrigation systems for indoor and manual watering for outdoor. Water is applied based on need. We also used to water large areas of the property that consumed many acre feet. We have cut water use on our site by 80% from previous use. Since our site is rural on a level hill top with a residence and long ago before it was popular created a gray water system. Funny how doing so was a violation before the drought became an issue. Our gray water system returns the water to our existing well. The gray water is located about 100 feet uphill of the well that is 280 deep. The water seeps through the ground over an area that is 500 in length and is filtered by oak trees and other natural habitat. Human waste and garbage disposal waste enters a permitted county septic system. All other gray water from showers and hand washing enters the gray water system. We use only natural soaps and bio degradable laundry detergents...

**Do you recycle water and/or cultivation materials?** Yes! In our indoor operations all water that overflows is collected and filtered for any soil that was lost and returned to a central reservoir. The water is then tested and adjusted for nutrients and PH balanced from 5.5 to 8.5. It is worthy to note that cannabis likes different PH's that allow them to absorb various nutrients at different PH levels. We have experimented over the years and make lots of notes about how that works based on trial and error. Used soils are recycled and added to the existing soils spread out over the acreage. We then grow cover crops using natural grasses such as clover, mustard seed, rye, alfalfa, leafy veggies. Sometimes the excess soil is tilled in and in other areas spread out and then planted. We have even used wood chips gathered from tree companies to help build and restore soils on the site. We could take these to the land fill but have noticed major soil improvement when recycled.
The compliance agreement will also require the licensee to have specific security measures in place. How do you currently secure your cultivation site? Alarm system? Fencing? Security guard?

Since we get along with our neighbors and have a near off grid site. We find that our 16 foot secure deer fencing and guard dogs are more than sufficient to create security. The site is approximately 4 acres that is wooded with oak trees and we can not see our neighbors. When the residences were subdivided they were designed for privacy and the distances between residences is several 1000 feet.

The Program will also have specific requirements for cannabis nurseries. Great

Do you sell plants to a dispensary for sale to patients? No

Or do you sell plants to cultivators for flower production? No

How much research and development goes a nursery site? We have thought about it and to do it right requires a lot of work. We would rather create clones from mother plants we know are quality strains that we have engineered to produce the best quality flowers, which are also resistant to pests, mold and problems associated with production.

Do you regularly propagate from seed? We have limited production. We have found that one must be extremely careful when pollinating plants to create seeds or you could lose the whole crop.
Regulatory Goal #5

OUTLINE CULTIVATOR RESPONSIBILITIES FOR COMPLIANCE INSPECTION

The Program will specify when licensees must make their site available for inspection and require that the cultivation site be safe for inspection. What measures do you currently take to make your site safe for inspection?

First off we have no safety issues, unless an uninvited persons enters our site without permission as we have large trained guard dogs that will defend their area, and the entire property has a secure 16 foot deer fencing with gated entrance. The grow area is also sub fenced with locks.

The Program will require retention of specific records and that they be made available upon request. What type of records do you currently retain?

We have detailed records of all activity sufficient to generate tax returns. But please do not create requirements for burdensome paperwork that say the same thing over and over and are slightly different and become mandatory for different agencies. If the state really used a common sense approach a single comprehensive online form can be created and shared with those agencies that need to be involved. Kind of like a Google Doc with secure authorized users. So if law enforcement is making an inspection they could easily compare documented information online in the report to the actual site. This would save everyone time and there would be less chance of mistakenly creating a violation. If you could envision that most farmers are law abiding citizens who are going to work to make a living to feed their families and take pride in creating quality products and pay a fair share of the tax burden.
Regulatory Goal #6

SPECIFY TRACK AND TRACE REQUIREMENTS

Licensees will be required to provide the Program with information about the movement of cannabis. This information will be used to protect the public if there is a safety or health concern, to ensure legally grown product does not get diverted, to ensure illegal product does not end up in the regulated marketplace, and to prioritize inspections by Program inspectors and law enforcement.

It makes sense to have inspectors/law enforcement make an advance appointment with site operators so that inspections take the least amount of time for all involved.

What is the current flow of cultivation at your site? At what points in the cultivation process do you think movement tracking would be valuable (planting, moving from veg area to flowering area, harvest, etc.)? The Program anticipates this will be different for indoor vs outdoor cultivation.

For indoor/mixed light, some plants may not be used, tagging when moving to the flowering area makes the most sense. Approximately 20 percent of anticipated veg may NOT be suitable based on plant health. Sub-par plants are destroyed; it is based on plant by plant inspection approximately 3 to 4 week before flowering. When permits are offered and all these details are worked out there would be no reason to divert. We also hope that the price per pound will rise to cover the costs of production and that regulatory fees etc will not be so costly that small farmers can still pay their bills and make reasonable profit. Common sense first.

For outdoor it makes sense to tag when plants are in their final growing areas.
Regulatory Goal #7

STATE LICENSE VIOLATIONS AND APPROPRIATE PENALTIES

The Program will inspect licensed cultivation sites to ensure compliance with license requirements. If an inspection reveals non-compliance or a local authority informs the Program of a non-compliance issue, the Program will proceed with an investigation. If the investigation determines that a violation occurred, the Program can revoke a license and/or may assess fines. What would a reasonable time-frame for conducting a hearing regarding a violation? The Program will also be defining minor, moderate and serious violations and corresponding penalties. What type of license violation would you consider minor? Moderate? Serious?

One thing that jumps out is adding the amount of plants in a canopy? This can vary quite a bit, and is dependent on the spacing of plants.

For example, an indoor space using quick turn-around methods only needs plants to reach a height of 3 to 4 feet before flowering. A space of 1400 square feet could easily accommodate 200 to 250 plants. Also known as a sea of green. That same space with only 50 plants could take almost 6 months to fully veg and then flower and due to the wasted space receiving artificial lighting at .39 cents per kilowatt, doubles the cost in a PGE bill and makes it unaffordable.

So it is very wise to use the canopy size space as a legal limit and not limit the actual amount of plants. Additionally, when a business is doing business we are always preparing for the next indoor grow cycle. So we could have as many as 500 clones in constant production to replace the finished crop. And have 500 plants vegging and 500 flowering. On our best run with limited space mentioned above total canopy of 3700 SQF we are only able to produce 50 pounds 3 times a year. For $285,000 per year. Costs to produce are just under $180,000. By the time you pay your partners/ workers on an equal scale you end up making about $30,000 per year per person in our operation.

Back to violations.

Minor

Say your outdoor plants grow a few feet over the exact size of the area allowed.

If you are late on paperwork less than 30 days minor.

If your fence needs repair give 30 days to remedy.

Odors give 30 days to remedy

Moderate

If you are late on paperwork less than 60 days minor penalty or small fine.
**Major/Serious**

If your activities are for another license and you don't have the correct one. 1 Warning, with law enforcement follow up.

If you are late on paperwork less than 90 days or never file major penalty or large fine

If you pollute use unapproved pesticides or dump into streams or divert water out of streams without a permit. Cause environmental damage or erosion that creates land damages.

Sell to illegal marketplace.

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*Department of Food and Agriculture, MCCP*

*1220 N Street, Suite 400*

*Sacramento, CA 95814*

*Cdfa.mccp@cdfa.gov*

*Sacramento, CA 95814*
From: Rains, Lindsay@CDFA on behalf of CDFA Medical Cannabis Cultivation Program@CDFA
To: MCCP_PEIR, CDFA@CDFA
Subject: FW: MCCP Comments
Date: Friday, September 30, 2016 4:02:19 PM
Attachments: MCCP COMMENTS.pdf

From: [redacted]
Sent: Thursday, September 29, 2016 6:38 PM
To: CDFA Medical Cannabis Cultivation Program@CDFA
Subject: MCCP Comments

Dear Ms. Morris,

Please find attached comments for your consideration as your office begins to draft regulations for the Medical Cannabis Cultivation Program. Thank you for the opportunity to comment.

Best,

[redacted]
Agricultural Commissioner
Sealer of Weights and Measures
County of Santa Cruz
175 Westridge Drive
Watsonville, CA 95076
September 29, 2016

Amber Morris, Branch Chief
California Department of Food and Agriculture
Medical Cannabis Cultivation Program
1220 N Street, Suite 400
Sacramento, CA 95814

RE: MEDICAL CANNABIS CULTIVATION PROGRAM REGULATION COMMENTS

Dear Ms. Morris:

Thank you for the opportunity to comment on the regulatory goals of the Medical Cannabis Cultivation Program (Program). As your office prepares to draft regulations for the Program, I would like to present the following comments:

- The Program regulations should mandate that Cannabis nursery stock follow the same standards of pest detection, prevention and cleanliness as set forth in CDFA’s nursery program.
- The Program regulations should include appropriate definitions of terms for Cannabis nursery stock to make it consistent with definitions currently found in CDFA’s nursery program. This will allow for an effective implementation of CDFA’s nursery program requirements to Cannabis nursery stock.
- The Program regulations should specify the scope of work that would be contracted between CDFA and Agricultural Commissioners for program compliance at the local level. Regulations should allow CDFA to directly contract any scope of work related to Cannabis licensing and cultivation program compliance with other governmental agencies not affiliated with the Agricultural Commissioner’s Office that have been designated by County or City ordinances to implement a licensing program, or the regulations should allow the Agricultural Commissioner to sub-contract this work on behalf of CDFA. CDFA should consult with the Agricultural Commissioner prior to contracting any work of the Program with other governmental agencies in that County or City. This will help to make the program more efficient by eliminating duplication of work and more consistent by having one agency enforcing compliance of local and State regulations. This will also reduce the burden on industry by minimizing the number of agencies they would need to work with.
• Should the regulations permit the Agricultural Commissioner and/or local County or City governmental agencies to enforce the Program through the issuance of violations and/or monetary penalties these agencies should be given discretion to determine the proper violation category and the discretion to set an appropriate monetary fine, when a fine is warranted, based on the evaluation of the circumstances surrounding the incident.

• The Program regulations should specify that failure to correct violations and/or failure to pay a monetary fine associated with a violation can result in suspension and/or revocation of a license.

• The Program regulations should mandate that new entities obtaining a cultivation license for the first time complete a certain number of hours in educational workshops that includes proper nutrient management, proper use and disposal of pesticides, regulatory requirements to protect farm workers and pesticide handlers, water management, security of cultivation sites, neighbor relations and other workshops that aim at educating cultivators so that they may be better equipped to mitigate environmental, health and public safety concerns. Required workshop hours should be completed prior to renewal of the State cultivation license. Entities should be mandated to provide proof of workshop completion as part of their license renewal process. Failure to complete all required workshop hours shall result in a renewal license being denied or in the issuance of a temporary license to allow for completion of required workshop hours. Completion of the educational workshops should be a one-time requirement.

Thank you for considering the comments presented in this letter and for your commitment to working on regulations that will allow this new industry to be successful and protective of our environment.

Sincerely,

[Redacted]

Agricultural Commissioner
Ms. Morris,

Please accept our attached comments regarding CDFA's PEIR, requested definitions, and other suggestions which align with CDFA objectives. We look forward to being a part of this process as regulations continue to take shape.

Sincerely,

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action resulting therefrom.
September 28th, 2016

California Department of Food & Agriculture
ATTN: Amber Morris
Medical Cannabis Cultivation Comments
1220 N Street, Suite 400
Sacramento, CA 95814

Ms. Morris,

It was our pleasure to have met you for breakfast over the summer in Sacramento along with Mary Winkley. We have the utmost respect for your task at hand — and hope to become a resource as regulations are established for the largest medical cannabis market in the world.

It is our intention as a company to raise the bar for the industry and appeal to regulators through rigid self-governance. As you know, there are industry participants who seek to cut corners and do the bare minimum in preparation for implementation of the finalized regulations. We are not among those cutting corners.

We have included specific feedback as solicited by CDFA as the PEIR is conducted. Below you will find suggested definitions, along with ways in which Cultivation Technologies, Inc. has optimized our facility so as to align with future regulations — no matter how rigid they may be.

**Decisions by Cultivation Technologies to Align with CDFA Objectives:**

**CDFA Objective - Protect the Environment**

- Best practices which reduce, recycle, or eliminate waste
- Utilize, when available, green energy sources
- LEED certification of buildings
- LED lighting for indoor (reduces heat, optimizes energy use and production capacity)
- Gas-tight buildings for indoor cultivation (reduces contaminants and optimizes use of energy)
- Insulation value which matches regional conditions
- Water conservation with hydroponic feeding systems; water recycling for reuse
- Reusing nutrient water for outdoor landscaping
- Zero pesticides through controlled atmosphere featuring proprietary gas algorithm

**CDFA Objective - Protect the Cannabis Cultivation Workers**

- Use LED vs. HPS Lighting - replacing antiquated technology which presents OSHA hazards
- Food-grade cooling systems which utilize Thermera as primary substance in lieu of freon

**CDFA Objective - Protect the General Public**

- Eliminate the use of pesticides through controlled atmosphere within indoor cultivation
- Airlocks which incorporate germicidal lights and HEPA filtration to reduce contaminants
Recommended Definitions:

*Canopy*

Canopy should be defined as square footage for tray space of cannabis in vegetative and bloom cycles (for indoor) and land area used for cultivation (outdoor). In the event indoor cultivators utilize pots instead of trays, canopy should be defined as square footage of grow area. This is the only logical definition of canopy — linear square footage of a building or plot is not adequate as it does not represent actual cannabis production... Indoor cultivation, when feasible, should maximize the use of indoor space and resources through vertical stacking. Thus, tray space must be evaluated when determining actual canopy size.

*Canopy Maximum for Cultivation Licenses*

Allowing licensed cultivators up to 4-acres of canopy is advantageous to regulators. While limiting scale, it affords regulatory efficiencies in allowing “good actors” to grow considerable volumes. This aligns with CDFA’s desire to protect the environment, workers, and the public because cultivators will be forced to obtain efficiencies. Consistent with the canopy definition, 4-acres of cultivation should equate to 174,240 square feet of canopy (indoor tray or outdoor dedicated cultivation area).

*Premises*

It would directly contradict CDFA’s stated objectives to define premises as anything but a dedicated area for a given licensee. For instance, if CDFA were to define premises as a parcel of land or a standalone building, that would be an irresponsible use of resources — arbitrarily restricting land use in a manner which was grossly inefficient. If CDFA should find it difficult to regulate entities which share a building, then a clearly defined wall (such as business condos) would be an alternative definition. Or leasable space within a commercial or industrial complex which is zoned for cannabis.

*Limiting Type 3 Licenses*

Limiting the number of Type 3 licenses also seems counterintuitive to CDFA’s stated objectives. While it may not align with the vision of micro-producers... Scaled cultivation furnishes efficiencies which boutique producers can’t recognize. It might behoove CDFA to limit total cultivation to square footage in aggregate, statewide — with micro-producers (2,500 square feet or less) not counting toward that square footage.

Thank you for your consideration, and we look forward to contributing regularly as draft regulations become more pronounced. Please don’t hesitate to contact me at 760-449-2509, or via e-mail (justin@cultivationtech.com)

Sincerely,

CEO & President
Cultivation Technologies, Inc.
To CDFA – MCCP,

I have some thoughts regarding regulatory goal #6 Track & Trace requirements. First let me say that I am a barcoding and rfid tag and label specialist/provider, and would like to see this industry boost revenue for more than just a handful of companies involved at the highest levels of state procurement. It is my hope that this program will allow many businesses to get in on this industry, such as the company I work for. I want to be able to service the producers in my area, and not be shut out of the industry. In my opinion what the CDFA is trying to implement is very similar in theory as many other regulated industries currently being used in commerce like apparel, pharmaceuticals, and foods to name a few.

The requirement to create a traceable system for them is no different than a garment manufacturer needing a unique product code for each and every style, size, and color garment they make, or a pharmaceutical drug manufacturer needing to be able to back trace each and every pill to its origin while maintaining a chain of custody. In trying to keep this program streamlined and simple while maintaining maximum efficiency I suggest mimicking some of the existing infrastructure that is already in place and being used daily across multiple industries. Currently if you need a unique product code or fall under a regulated manufacturing industry you subscribe to GS1 and they administer the product code for each individual item. GS1 currently regulates this data for food, apparel, pharmaceuticals, etc.

I don’t necessarily think that the state should set forth certain requirements in regards to using 1 single type of proprietary software but rather establish a standard in which the way the information needs to be collected, presented, delineated again which in my opinion should go through GS1, for ease and efficiency. There are many people across the state who have already invested in software like MJ freeway, or Biotrack, or Proteus to name a few and it will be inefficient and expensive to require producers to incur another expenditure for something they already have and are already using. Again I think it would make more sense to specify the way in which the data is collected and presented to the state, and using an intermediary such as GS1 to standardize, maintain and manage the data. This is currently in use across multiple industries. The same goes for RFID traceable tags. Rather than specify that the tags be procured through one vendor, or require one specific type of tag instead a requirement is set forth that as long as the tags are EPC class 1 gen 2 tag.

So to summarize my few thoughts on this matter, I don’t think the state should require a specific
software program but rather utilize the already existing system, and infrastructure of GS1, and require all producers or other required partied to subscribe to GS1. This is what’s currently being done in retail, healthcare, transportation and logistics, and food service. Attached is a link to GS1 standards page so you can see what they do and how they work, as well as a link to the webpage regarding GS1 and the EPC-RFID tags.

I am also attaching a PowerPoint from GS1 should you desire more of an in depth explanation.

Should you desire to speak with me on this matter or would like more information please do not hesitate to contact me, and if you feel like you want to forward this to any one else in the decision making process please by all means go ahead and forward my information along as well

http://www.gs1.org/how-gs1-standards-work

http://www.gs1.org/epc-rfid

Thanks,

Account Executive
California Label Products
13255 S Broadway
Los Angeles, CA 90061
www.californialabel.com

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Please consider these comments.

Thanks,

South Fork Trinity Up-River Friends

Sent from Outlook
September 30, 2016

Amber Morris, Branch Chief
California Department of Food and Agriculture (CDFA)
Medical Cannabis Cultivation Program (MCCP)
1220 N Street, Suite 400
Sacramento, CA 95814

Re: Comments on Regulations for Medical Cannabis Regulation and Safety Act (MCRSA), and Comments on Scoping Process under California Environmental Quality Act (CEQA)

Dear CDFA and MCCP,

South Fork Trinity Up-River Friends is submitting these comments for both the MCRSA regulation development process, as well as the CEQA Scoping process for the MCCP.

Overview
South Fork Trinity Up-River Friends is concerned about the serious and ongoing impact of cannabis cultivation in sensitive areas of the state, in terms of watershed, fish and wildlife, and forest areas, especially in our area of interest. Further, we are concerned about the greenhouse gas emissions and high levels of electricity use for growing cannabis indoors. Cultivation licenses are a privilege not a right, and it is incumbent on MCCP to promulgate regulations that are sufficiently stringent.

The environmental harm and consequences of cannabis cultivation in forested areas has been well-documented by the media and state and federal agencies, and is becoming more severe each growing season. It is imperative that regulations and more stringent enforcement be implemented as soon as possible to address the serious impacts of the use of toxics, pesticides, and herbicides, as well as road construction, land-terracing, forest clearing, soil runoff, water pollution, and wildlife stress, in sensitive natural areas and watersheds. This is particularly concerning in historically forested areas of the state or areas in or near state or federally protected lands such as wilderness areas.

By some estimates, 60 to 70% of all marijuana consumed in the US is grown in California. The dramatic increase in grow sites and serious environmental impact in watersheds and other sensitive natural areas is well-documented in the media, research articles, and videos. Because of the lack of state regulations, some local Boards of Supervisors have issued emergency ordinances. The environmental damage that continues unabated every day in grow sites throughout the state is undoing the success we all achieved decades ago in environmental protections and awareness in sensitive natural areas.

Compliance Needed with Related State and Federal Law
The federal Clean Air Act, Endangered Species Act, and Clean Water Act, and related federal regulations, include specific provisions that must be met by licensees and state agencies. In addition, the MCCP regulations should reflect the cap and trade regulations administered by the California Air Resources Board (CARB).
MCCP Should Prioritize Development of a Certification Program for Sustainably Grown Cannabis

California Business and Professions Code Section 19332.5 requires, by January 1, 2020, the MCCP to develop a certified organic designation and organic certification program for medical cannabis cultivation, if permitted under federal and state law and regulation. We urge the MCCP to implement such a program sooner than 2020, and furthermore, urge the MCCP to work with other state agencies to develop a statewide certification program for sustainably grown cannabis. This certification would include not only compliance with MCCP minimum regulations, but a higher level of sustainability that includes adherence to principles similar to those used by the Forest Stewardship Council, the “Clean Green Certified” program, or the USDA Certified Organic accreditation process.

Development of these programs would promote Sustainable cultivation practices and reduce environmental impact. In addition, such as program could provide incentives to certified licensees, such as a higher limit on the number of licensed sites, within existing overall limits on the total number of permits. These programs would help CDFA comply with the legislative intent of AB 266, AB 243, and SB 643, and would be consistent with the provisions of those Acts.

Further, MCCP should work with other state agencies, including the California Air Resources Board (CARB), to develop a statewide certification program for sustainably grown indoor cannabis cultivation, to mitigate greenhouse gas emissions resulting from high electricity use. Preferential treatment for licensees who install their own renewable energy sources may be an approach.

Comments on Pre-Regulation Workshop Survey
We are providing comments below on the seven areas that you have identified in your pre-regulation workshop survey.

Regulatory Goal #1: DEFINE TERMS USED IN CANNABIS CULTIVATION

The definitions section should reflect the terms needed to implement the Certification programs described above, including sensitive natural areas and watersheds.

Some or all of the regions within California of the State Water Quality Control Boards have adopted General Orders (pertaining specifically in the case of North Coast Region to Cannabis crops) defining several different Tiers of threat to water quality. These are generally based on % slope, area it occupies and/or disturbs, in some case as a percentage of property owned, and proximity to an aquatic life bearing water body.

Regulatory Goal #2: DEFINE THE APPLICATION PROCESS AND REQUIREMENTS FOR LICENSING
Both online and hard copy applications should include confirmation by the property owner of record that they consent to the use of their property for cannabis cultivation, and recognize their own ultimate responsibility for any violations of the regulatory system. Applications should also include affirmation, under penalty of perjury, that the information provided is truthful and correct.

Permit applicants must demonstrate awareness of environmental management requirements, including those related to water, wildlife, and chemicals. In addition, permit applicants and recipients should be informed of the chemicals, including but not limited to insecticides, fungicides, herbicides, and rodenticides, that are allowed to be used in cultivation sites, as well as chemicals that are not allowed in cultivation sites. This information should also be provided to property owners, site caretakers, property residents, and construction contractors, upon approval of the permit.

We recommend that cultivation be banned in Timber Production Zones, which were established for the sustainable harvest of timber, not for agricultural use, but if this is not feasible MCCP regulations, at a minimum, should require applicants to comply with CEQA provisions regarding conversion of TPZs.

Regarding potential weapons and firearms restrictions to protect state enforcement staff, the regulations should include such a ban. In this case safe access to cultivation sites for state staff is integrally related to critical environmental review, mitigation, and enforcement efforts.

Regulatory Goal #3: IDENTIFY THE CULTIVATOR LICENSE TYPES BY LIGHT SOURCE AND SITE SIZE; CLARIFY ALLOWABLE LICENSE COMBINATIONS; OUTLINE RENEWAL PROCESS AND SET LICENSING FEES

Regarding the amount of the application processing fee, and any other licensing fees or penalties charged to licensees, the full cost of environmental protection, monitoring, and restoration for licensed cultivation sites should be reflected in the amount of the fee. Enforcement funds need to be sufficient to curb black market activities so that growers come into compliance. The estimate of 20% does not seem adequate.

Further, under the Certification Program for Sustainably Produced Cannabis described above, only those license holders with appropriate certification should have the option to hold licenses for more than two sites, regardless of canopy size.

Finally, the MCCP should consider the overall environmental impact of sites in sensitive natural areas, and should limit the number of sites and extent of total permitted acreage in these areas.

Regulatory Goal #4: SPECIFY REQUIREMENTS TO MITIGATE ENVIRONMENTAL HEALTH AND PUBLIC SAFETY ISSUES

In addition to the provisions included in the Outline of Draft Regulations, within Application for Cultivation Licenses and Cultivation Requirements, successful applicants must also show they meet applicable federal requirements, including the Clean Water Act, the Clean Air Act, the Endangered Species Act, and the Environmental Protection Act. Northern Spotted Owls have recently been listed as Endangered in California. A Biological Opinion (BO) of areas with suitable nesting or foraging habitat for Northern Spotted Owls must be provided for all such
areas.

The MCCP should deny any license applications that do not demonstrate compliance with state or federal environmental protection provisions. Further, the MCCP should deny any license applications submitted by individuals with previous violations of state or federal environmental protection laws or regulations, or any serious criminal activities. An on-site inspection should be conducted prior to license approval.

Regulatory Goal #5: OUTLINE CULTIVATOR RESPONSIBILITIES FOR COMPLIANCE INSPECTION

Cultivators should be required to provide expeditious access to all county, state and federal law enforcement, licensing, and compliance staff.

Further, MCCP should post information online regarding cannabis cultivation license holders, including the name of the license holder, the type of license, the location and size of the cultivation area, whether the license holder meets the certification standards described above, and the type and outcome, including environmental clean-up efforts, of any violations of state or federal requirements. This level of transparency will help the public understand the extent of permits in a given area, and the extent that compliance problems are more likely in specific geographic areas or permit types.

Regulatory Goal #6: SPECIFY TRACK AND TRACE REQUIREMENTS

MCCP regulations regarding the movement of cannabis should be strictly enforced, to avoid diversion of legally grown product, and reduce the market for illegally grown product. Reducing the market for illegally grown cannabis would help strengthen overall cultivator compliance with environmental regulations.

Regulatory Goal #7: STATE LICENSE VIOLATIONS AND APPROPRIATE PENALTIES

The regulations should define a significant and stringent enforcement process. Penalties for cultivation sites in sensitive areas should be higher than for other areas. Serious violations, with the highest penalty amounts, should at least include those that occur in sensitive areas. In addition, violations with large amounts of unmitigated greenhouse gas emissions should be considered serious. In the case of serious violations, the license should be revoked and high penalties assessed.

Penalties should be assessed on property owners, cultivation site caretakers, property residents, and construction contractors. If a violation occurs and the party responsible for the violation is unclear, the property owner should be held accountable for the violation and penalty. In the case of violations where there is immediate and serious environmental impact, the hearing time-frame should be expedited, and/or the license should be suspended pending the outcome of the hearing.

Further, the MCCP should closely coordinate with other local, state, and federal agencies when reviewing permit applications and when violations occur, so that site clean-up efforts
can be expedited in sensitive natural areas or watersheds, prior to significant rainfall or runoff events that can damage water quality.

**CEQA PEIR Scoping Comments**

In addition to the issues described above, the Programmatic Environmental Impact Report (PEIR) should address the following:

The PEIR should include a range of alternatives that meets the stated purpose of the state statute and federal environmental laws, and responds to issues identified during the scoping process. The alternatives analysis should compare alternatives with respect to how well they respond to state statute and federal environmental laws. All reasonable alternatives should be considered, even if some of them could be outside the capability of the jurisdiction of the specific state agencies preparing the PEIR. Consistent with the purpose of the PEIR and CEQA, we encourage the selection of alternatives that protect, restore, and enhance the environment. We support efforts to identify and select alternatives which maximize environmental benefits, and, avoid, minimize, and/or otherwise mitigate environmental impacts. If a preferred alternative is identified, it should be included in the PEIR.

The PEIR should evaluate in detail the potential direct, indirect, and cumulative impacts of the proposed alternative on all aquatic, riparian, and terrestrial species that are listed as sensitive, threatened, and/or endangered. CDFA and other state agencies should include in the PEIR the results of comprehensive biological surveys of Humboldt, Trinity, Mendocino, and Santa Cruz counties, as they counties appear to include the most prevalent outdoor forested cultivation sites. Without such surveys, it would be difficult to accurately evaluate the environmental impacts of the proposed action. The PEIR section on environmental impacts ought to also include evaluations of: air quality, water quality, climate change, and noxious weeds, as well as impacts involving roads and landings.

The PEIR should include a systematic and comprehensive discussion of the impacts of climate change in sensitive environmental areas where cannabis cultivation is prevalent. The PEIR should consider climate change adaptation measures where appropriate. For example, adding a discussion of the increased vulnerability of specific species under a reasonably anticipated climate change scenario, and an explanation of the projected shift of forest species to more suitable range elevations. The PEIR should discuss measures to improve forest adaptation to climate change, such as the selection of certain species for replanting on cultivation sites where environmental restoration is needed.

The PEIR should consider the impact of noxious weed species within cultivation sites, as well as possible mitigation measures, such as: clean all off-road logging and construction equipment prior to entering sensitive natural areas to remove dirt, plant parts and material that may carry weed seeds; include equipment cleaning in the environmental plan for cultivation sites; and require equipment to avoid weed infested areas.

Chemicals on Cultivation Sites: Pesticides, herbicides, and rodenticides, as well as other chemicals that may be used in cultivation, have a serious impact on water quality and wildlife due to runoff into streams and rivers, as well as introduction of rodenticides into the wildlife food chain (for example large birds and mammals may eat rats that have ingested rodenticides). The
state, counties, and license holders should comply with federal Clean Water, Clean Air, and Endangered Species Act provisions that may apply in relation to the use of chemicals. Further, local ordinances regarding pesticide and herbicide use that are more restrictive than state or federal requirements must take precedence. Trinity County, for example, passed and ordinance prohibiting any detectable discharge of toxins in County waters. Pesticides are banned on public lands. The use of chemicals on cultivation sites needs to be addressed in the PEIR.

Forestry Resources: The preservation of existing timber stands helps to offset erosion by cooling soils and absorbing runoff, improves air quality, and offsets greenhouse gases through carbon sequestration. Mycorrhizal fungi forming webs among the roots of trees are critical to nutrient absorption and, therefore, resilience. Disturbance of these processes by removing timber is the unseen result. Issuance of permits for cannabis cultivation in timberland and woodland should be discouraged, and if it is to be allowed at all the PEIR must address the impact of TPZ conversions.

Further, the PEIR should address the preservation of natural ecological processes to maintain the current balance of species populations and diversity.

Air Quality: Cultivation and transportation of cannabis results in air pollution due to diesel and non-diesel gas powered cars, trucks, and generators. These impacts should be addressed in the PEIR. If manufacturing processes are allowed on cultivation sites, and cause fires, PEIR should address cost recovery and penalties to licensee and others related to site.

Greenhouse Gas Emissions and Climate Change: The significant electricity used for artificial light in indoor and mixed-light cultivations results in greenhouse gas emissions by utility companies, and this impact needs to be addressed in the PEIR. We recommend that the state use the Council on Environmental Quality's December 18, 2014 revised draft guidance for greenhouse gas emissions and climate change impacts in the PEIR, as it outlines a reasonable approach to outline the framework for its analysis of these issues. Accordingly, we recommend the PEIR qualitatively describe relevant climate change impacts from the project and analyze reasonable alternatives and/or practicable mitigation measures to reduce project-related greenhouse gas emissions.

Hydrology and Water Quality: Water from rivers and streams is frequently diverted for cannabis cultivation sites, often in violation of state and federal rules, and to the detriment of fish and aquatic species. “Waters of the State” laws must be immediately enforced. Each licensee must possess a legal water source adequate for the scale of cultivation proposal. SWQCB requirements for the Region must be met. Almost all North Coast waters are critical for salmonids. Sediment from bulldozing, garbage and chemicals is often running into streams and rivers in the form of excess water use or runoff. Serious environmental consequences can occur, and the PEIR should address these impacts.

Cumulative Impacts: Sensitive natural areas and watersheds are less able to absorb or recover from the negative environmental impacts of cannabis cultivation as currently practiced by most growers. The PEIR needs to evaluate the cumulative impacts, and the number of licenses and total cultivation acreage for a specific watershed or natural area should be based on the combined past, present and future impacts of cannabis and other agricultural cultivation.
The PEIR should address robust road, landing maintenance and restoration programs that fully offset adverse effects of cultivation sites, such as reduction of sediment sources to benefit fish and aquatic systems. The PEIR should consider alternatives which avoid or minimize extensive roadwork in watersheds that exceed the Threshold of Concern for cumulative watershed effects. The Clean Water Act method of measurement of TMDL on critical watersheds is a good model.

Similarly, the aggregate number of indoor cultivation permits will affect the cumulative impact on greenhouse gas emissions, and the PEIR needs to evaluate the cumulative impacts in this area as well. Amounts of water used at indoor sites must comply with Water Rights laws and local ordinances.

It is imperative that until Regulations are in place, steps are taken to minimize destruction of our natural systems.

Thank you for your consideration of these comments.

Sincerely,

South Fork Trinity Up-River Friends
Please see attached a comment letter from Sierra Club California regarding proposed regulations regarding medical cannabis.

--

Director
Sierra Club California
909 12th Street, Suite 202
Sacramento, CA 95814

http://www.sierraclubcalifornia.org

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September 30, 2016

Amber Morris
California Department of Food and Agriculture (CDFA) Medical Cannabis Cultivation Program (MCCP)
1220 N Street, Suite 400
Sacramento, CA 95814

Submitted Via Email: mccp.peir@df.ca.gov

Re: Comments on Regulations for Medical Cannabis Regulation and Safety Act (MCRSA), and Comments on Scoping Process under California Environmental Quality Act (CEQA)

Dear Ms. Morris:

Sierra Club California welcomes this opportunity to submit these comments on both the MCRSA regulations and the CEQA Scoping process for the MCCP.

Overview

Sierra Club California has been concerned for many years about the serious ongoing impact of cannabis cultivation on environmentally sensitive areas throughout the state, with consequences that include watershed degradation, loss of fish and wildlife habitat, destruction of forests, and diminished recreational potential. We are also concerned about the excessive electricity required to grow cannabis indoors, with a consequent increase in greenhouse gas emissions. It is incumbent on MCCP to promulgate regulations that are sufficiently rigorous to prevent environmental damage and that also provide incentives for growers to comply with the regulatory framework rather than grow marijuana illicitly on public or private lands.

The damage caused by cannabis cultivation on our public lands has been well documented. Consequences include unregulated pesticide use (sometimes extending to substances so toxic that they are not allowed in the United States at all), illicit road construction, land terracing, vegetation removal, soil runoff and water pollution, and harm to wildlife such as the endangered Pacific Fisher. Similar damage also occurs on private lands, with or without the consent of the landowner.

The great majority of all marijuana consumed in the US is grown in California, and by some estimates, 60% in the “emerald triangle” counties of Mendocino, Humboldt and Trinity. In the absence of a uniform state regulatory system, some county Boards of Supervisors have issued emergency ordinances, resulting in a patchwork of
inconsistent rules. In the meantime, environmental damage continues unabated in sensitive natural areas.

**Compliance Needed with Related State and Federal Law**

At a minimum, the MCCP must include provisions for licensee compliance with the federal and state clean air acts, endangered species acts, clean water acts and related regulations. In addition, the MCCP regulations should reflect the greenhouse gas reduction rules and regulations administered by the California Air Resources Board (CARB) and the rules governing pesticide application that apply to traditional agriculture in California.

**MCCP Should Prioritize Development of a Certification Program for Sustainably Grown Cannabis**

California Business and Professions Code Section 19332.5 requires, the MCCP to develop a certified organic designation and organic certification program for medical cannabis cultivation by January 1, 2020, if permitted under federal and state law. We urge the MCCP to implement such a program earlier than 2020, and also urge the MCCP to work with other state agencies to develop a statewide certification program for sustainably grown cannabis. This certification would go beyond compliance with MCCP minimum regulations, to include adherence to principles similar to those used by the Forest Stewardship Council, the “Clean Green Certified” program, or the USDA Certified Organic accreditation process.

Development of these programs would promote sustainable cultivation practices and reduce environmental impact. In addition, such a program could provide incentives to certified licensees, such as a higher limit on the number of licensed sites, within existing overall limits on the total number of permits. These programs would help CDFA comply with the legislative intent of AB 266, AB 243, and SB 643, and would be consistent with the provisions of those Acts.

Further, MCCP should work with other state agencies, including the California Air Resources Board to develop a statewide certification program for sustainably grown indoor cannabis cultivation, to mitigate greenhouse gas emissions resulting from high electricity use. Preferential treatment for licensees who install their own renewable energy sources might be one approach.

**Comments on Pre-Regulation Workshop Survey**

The comments below address the seven areas identified in your pre-regulation workshop survey.

**Regulatory Goal #1: DEFINE TERMS USED IN CANNABIS CULTIVATION**

The definitions section should reflect the terms needed to implement the certification programs described above, including sensitive natural areas and watersheds. Where feasible, definitions should be consistent with those already used by the US Forest Service and other federal and state agencies.
Regulatory Goal #2: DEFINE THE APPLICATION PROCESS AND REQUIREMENTS FOR LICENSING

Both online and hard copy applications should include confirmation by the property owner of record of consent to use the property for cannabis cultivation, and acknowledgement of the owner’s responsibility for any violations of the regulatory system that occur during marijuana cultivation on that property. Applications should also include affirmation, under penalty of perjury, that the information provided is truthful and correct.

Permit applicants must demonstrate awareness of environmental management requirements, including those related to water, wildlife, and chemicals. In addition, permit applicants and recipients should be informed of the chemicals, including but not limited to insecticides, fungicides, herbicides, and rodenticides, that are allowed to be used in cultivation sites, as well as chemicals that are not allowed in cultivation sites. This information should also be provided to property owners, site caretakers, property residents, and construction contractors, upon approval of the permit.

We recommend that cultivation be banned in Timber Production Zones (TPZs), which were established for the sustainable harvest of timber, not for agricultural use. At a minimum, MCCP regulations should require applicants to comply with CEQA provisions regarding conversion of TPZs.

Regulatory Goal #3: IDENTIFY THE CULTIVATOR LICENSE TYPES BY LIGHT SOURCE AND SITE SIZE; CLARIFY ALLOWABLE LICENSE COMBINATIONS; OUTLINE RENEWAL PROCESS AND SET LICENSING FEES

The full cost of environmental protection, monitoring, and restoration for licensed cultivation sites should be reflected in the amount of the application processing fee, and any other licensing fees or penalties charged to licensees.

Further, under the Certification Program for Sustainably Produced Cannabis described above, only those license holders with appropriate certification should have the option to hold licenses for more than two sites, regardless of canopy size.

Finally, the MCCP should consider the cumulative environmental impact of sites in sensitive natural areas, and should limit the number and extent of those sites accordingly.

Regulatory Goal #4: SPECIFY REQUIREMENTS TO MITIGATE ENVIRONMENTAL HEALTH AND PUBLIC SAFETY ISSUES

In addition to the provisions included in the Outline of Draft Regulations, within Application for Cultivation Licenses and Cultivation Requirements, successful applicants must also show they meet applicable federal and state requirements, including clean water acts, clean air acts, endangered species acts, and other key
environmental protection laws and regulations, including environmental quality and protection acts.

The MCCP should deny any license applications that do not demonstrate compliance with state or federal environmental protection provisions. Further, the MCCP should deny any license applications submitted by individuals with previous violations of state or federal environmental protection laws or regulations, or any serious criminal activities. An on-site inspection should be conducted prior to license approval.

Regulatory Goal #5: OUTLINE CULTIVATOR RESPONSIBILITIES FOR COMPLIANCE INSPECTION

Cultivators should be required to provide expeditious access to all county, state and federal law enforcement, licensing, and compliance staff.

Further, MCCP should post information online regarding cannabis cultivation license applications and license-holders, including the name of the license applicant or holder, the type of license, the location and size of the cultivation area, whether the license applicant or holder meets the certification standards described above, and the type and outcome, including environmental clean-up efforts, of any violations of state or federal requirements. This level of transparency will help the public understand the extent of permits in a given area, and the extent that compliance problems are more likely in specific geographic areas or permit types.

Regulatory Goal #6: SPECIFY TRACK AND TRACE REQUIREMENTS

MCCP regulations regarding the movement of cannabis should be strictly enforced, to avoid diversion of legally grown product, and reduce the market for illegally grown product. Consideration should be given to the implementation of a tagging system to track legally-grown cannabis plants from propagation to consumption, as was done in Mendocino County several years ago. Reducing the market for illegally grown cannabis would help strengthen overall cultivator compliance with environmental regulations.

Regulatory Goal #7: STATE LICENSE VIOLATIONS AND APPROPRIATE PENALTIES

The regulations should define a significant and stringent enforcement process. Penalties for cultivation sites in sensitive areas should be higher than for other areas. In addition, violations with large amounts of unmitigated greenhouse gas emissions should be considered serious. In the case of serious violations, the license should be revoked and high penalties assessed.

Penalties should be assessed on property owners, cultivation site caretakers, property residents, and construction contractors. If a violation occurs and the party responsible for the violation is unclear, the property owner should be held accountable for the violation and penalty. In the case of violations where there is
immediate and serious environmental impact, the hearing timeframe should be expedited, and/or the license should be suspended pending the outcome of the hearing.

Further, the MCCP should closely coordinate with other local, state, and federal agencies when reviewing permit applications and when violations occur, so that site clean-up efforts can be expedited in sensitive natural areas, prior to significant rainfall or runoff events that can damage water quality.

**CEQA PEIR Scoping Comments**

In addition to the issues described above, the Programmatic Environmental Impact Report (PEIR) should address the following:

The PEIR should include a range of alternatives that meets the stated purpose of the state statute and federal environmental laws, and responds to issues identified during the scoping process. The alternatives analysis should compare alternatives with respect to how well they respond to state and federal environmental laws. All reasonable alternatives should be considered, even if some of them could be outside the capability of the jurisdiction of the specific state agencies preparing the PEIR. Consistent with the purpose of the PEIR and CEQA, we encourage the selection of alternatives that protect, restore, and enhance the environment. We support efforts to identify and select alternatives which maximize environmental benefits, and avoid, minimize, and/or otherwise mitigate environmental impacts. If a preferred alternative is identified, it should be included in the PEIR.

The PEIR should evaluate in detail the potential direct, indirect, and cumulative impacts of the proposed alternative on all aquatic, riparian, and terrestrial species that are listed as sensitive, threatened, and/or endangered. CDFA and other state agencies should include in the PEIR the results of comprehensive biological surveys of Humboldt, Trinity, and Mendocino counties, as these counties appear to include the most prevalent outdoor forested cultivation sites. Without such surveys, it would be difficult to accurately evaluate the environmental impacts of the proposed action. The PEIR section on environmental impacts ought to also include evaluations of: air quality, water quality, climate change, and noxious weeds, as well as impacts involving roads and landings.

The PEIR should include a systematic and comprehensive discussion of the impacts of climate change in sensitive areas where cannabis cultivation is prevalent. The PEIR should consider climate change adaptation measures where appropriate. For example, adding a discussion of the increased vulnerability of specific species under a reasonably anticipated climate change scenario, and an explanation of the projected shift of forest species to more suitable range elevations. The PEIR should discuss measures to improve forest adaptation to climate change, such as the selection of certain species for replanting on cultivation sites where environmental restoration is needed.
The PEIR should consider the impact of noxious weed species within cultivation sites, as well as possible mitigation measures, such as: clean all off-road logging and construction equipment prior to entering sensitive natural areas to remove dirt, plant parts and material that may carry weed seeds; include equipment cleaning in the environmental plan for cultivation sites; and require equipment to avoid weed infested areas.

**Chemicals on Cultivation Sites:** Insecticides, herbicides, and rodenticides, as well as other chemicals that may be used in cultivation, have a serious impact on water quality and wildlife due to runoff into streams and rivers, as well as introduction of rodenticides into the wildlife food chain (for example large birds and mammals may eat rats that have ingested rodenticides). The state, counties, and license holders should comply with federal Clean Water, Clean Air, and Endangered Species Act provisions that may apply in relation to the use of chemicals. Further, local ordinances regarding pesticide use that are more restrictive than state or federal requirements must take precedence. The use of chemicals on cannabis cultivation sites needs to be brought under the same regulatory framework that applies to other agricultural crops.

**Forestry Resources:** The preservation of existing timber stands helps to offset erosion by cooling soils and absorbing runoff, improves air quality and offsets greenhouse gases through carbon sequestration. Issuance of permits for cannabis cultivation in timberland and woodland should be discouraged, and if it is to be allowed at all the PEIR must address the impact of conversion.

Further, the PEIR should address the preservation of natural ecological processes to maintain the current balance of species populations and diversity.

**Air Quality:** Cultivation and transportation of cannabis results in air pollution due to diesel and non-diesel gas powered cars, trucks, and generators. These impacts should be addressed in the PEIR.

**Greenhouse Gas Emissions and Climate Change:** The exorbitant amount of electricity used in indoor and mixed-light cultivations results in disproportionate increases in greenhouse gas emissions, and this impact needs to be addressed in the PEIR. We recommend that the state use the Council on Environmental Quality's December 18, 2014 revised draft guidance for greenhouse gas emissions and climate change impacts in the PEIR, as it outlines a reasonable approach to outline the framework for its analysis of these issues. Accordingly, we recommend the PEIR qualitatively describe relevant climate change impacts from the project and analyze reasonable alternatives and/or practicable mitigation measures to minimize project-related greenhouse gas emissions.

**Hydrology and Water Quality:** Water from rivers and streams is frequently diverted for cannabis cultivation sites, often in violation of state and federal rules, and to the detriment of fish and aquatic species. It is essential that each licensee demonstrate the possession of a legal water source adequate for the scale of cultivation proposed. Furthermore, significant pollution of watercourses from erosion, excessive nutrient
runoff and toxic substances has commonly accompanied cannabis cultivation as currently practiced. Setback requirements from streambanks and maximum slope limitations on grow sites would help minimize these impacts.

**Cumulative Impacts:** Sensitive natural areas and watersheds are less able to absorb or recover from the negative environmental impacts of cannabis cultivation as currently practiced by most growers. The PEIR needs to evaluate the cumulative impacts, and the number of licenses and total cultivation acreage for a specific watershed or natural area should be based on the combined past, present and future impacts of cannabis and other agricultural cultivation.

The PEIR should address robust road, landing maintenance and restoration programs that fully offset adverse effects of cultivation sites, such as reduction of sediment sources to benefit fish and aquatic systems. The PEIR should consider alternatives which avoid or minimize extensive roadwork in watersheds that exceed the Threshold of Concern for cumulative watershed effects.

Similarly, the aggregate number of indoor cultivation permits will affect the cumulative impact on greenhouse gas emissions, and the PEIR needs to evaluate the cumulative impacts in this area as well.

Thank you for consideration of these comments.

Sincerely,

[Signatures]

Volunteer Policy Leader
Sierra Club California

[Signatures]

Director
Sierra Club California
Hi Amber,

Please see attached for CCOF’s comments on the MCCP.

Best wishes,

Policy Director
CCOF
2155 Delaware Ave., Suite 150
Santa Cruz, CA 95060

www.ccof.org
Visit CCOF on Facebook and Twitter

Renew Your Certification Today! Please complete your renewal contract and pay your annual fee by January 1, 2017, to remain certified. Renew online now!
September 30, 2016

Amber Morris
Medical Cannabis Cultivation Comments
1220 N. Street, Suite 400
Sacramento, CA 95814

RE: Medical Cannabis Cultivation Program Comments

Dear Ms. Morris,

Thank you for the opportunity to provide input on the California Department of Food and Agriculture’s (CDFA) Medical Cannabis Cultivation Program.

CCOF is a nonprofit organization founded in 1973 that advances organic agriculture for a healthy world through organic certification, education, advocacy, and promotion. CCOF is based in Santa Cruz, California, and represents more than 3,000 certified organic members in 42 states and three countries.

CDFA has the opportunity to promote California as the leader in safe cannabis production by requiring all materials used in the cultivation of cannabis to be approved for use in organic production and by establishing a program for U.S. Department of Agriculture (USDA)-accredited certification agencies to certify cannabis as meeting organic standards.

Before federal regulation of organic products, CDFA’s State Organic Program set the bar nationwide for state regulation of organic labeling and agricultural practices. Today, the organic label has the highest level of integrity and consumer trust in large part because of California’s leadership. Now, CDFA has the opportunity to again set the bar for an evolving agricultural sector by establishing strong standards that protect natural resources and public health through incorporation of established organic material review and certification.

1. CDFA should require all materials used in the cultivation of cannabis to be approved for use in organic production.

CDFA has the important yet challenging responsibility to regulate the cultivation of cannabis, a commodity historically unregulated as a crop for human consumption. Terminally ill patients and other consumers are relying on the state to protect the public from the risks associated with toxic agricultural inputs. Moreover, California
residents have a strong interest in stopping the current destruction of natural resources and diversion of the state’s delicate water bodies that occurs as a result of some cannabis production.

To meet its responsibilities, CDFA must establish regulations that provide for the tools and resources growers need to cultivate cannabis while also protecting natural resources and public health. In coordination with the Department of Pesticide Regulation (DPR), CDFA must regulate the use of pesticides; however, CDFA should also address the use of other agricultural inputs, such as fertilizers, that also pose risks to natural resources and public health.

Therefore, CDFA should establish regulations that require all materials used in cannabis production to be approved for use in organic production as set forth in 7 CFR 205.105. Generally non-synthetic substances are allowed and synthetic substances prohibited, except as provided under the National List of Allowed and Prohibited Substances (The National List), 7 CFR 205.600-607.

Organic standards allow for a range of materials that could be used in cannabis production, and the National List has a thorough review process that includes public comment and cyclical updates. The Organic Material Review Organizations, like CDFA’s Organic Input Material program, have proven successful at facilitating innovation in pesticide formulations while also preventing the use of harmful materials. Limiting materials to those allowed in organic production will ensure growers have adequate tools while also providing the highest levels of protection for natural resources and public health.

In short, CDFA can meet its regulatory responsibilities to the state, to the public, and to cannabis growers by requiring all materials used in the cultivation of cannabis to be approved for use in organic production.

2. **CDFA should establish a program for USDA-accredited organic certifying agents to certify cannabis as meeting USDA organic standards.**

CCOF encourages CDFA to move forward with a program that allows USDA-accredited organic certification agents (ACAs) to certify cannabis to organic standards. Although cannabis remains ineligible for organic certification because of its federal illegal status, a strong consumer demand for organic cannabis persists in the state. Not only does CCOF receive frequent requests for certification, but also the California Medical Marijuana Regulation and Safety Act (MMRSA) and the 2018 ballot initiative for recreational marijuana include provisions that would require CDFA to offer organic certification if allowed under the USDA National Organic Program (NOP).\(^1\)

\(^1\) Not later than January 1, 2020, the Department of Food and Agriculture shall make available a certified organic designation and organic certification program for medical cannabis cultivation, if permitted under federal law and the National Organic Program (Section 6517 of the federal Organic Foods Production Act of 1990 (7 U.S.C. Sec.
Given the strong demand for organic certification, CDFA should develop a program in coordination with ACAs and the California Organic Products Advisory Committee (COPAC). The program can establish a labeling scheme that communicates to consumers that although cannabis products are not eligible for USDA organic certification, the product has been produced in compliance with organic standards.

The most critical aspect of an organic program for cannabis cultivation will be to coordinate with ACAs and COPAC to ensure that the program is not unnecessarily large or costly for taxpayers. While it would be an expensive, time-consuming project for CDFA to develop its own certification body, CDFA can leverage its existing State Organic Program as an enforcement body and rely on ACAs to certify to organic standards. In this way, CDFA can efficiently meet the strong consumer and grower interest in certification of cannabis to organic standards.

Thank you for considering CCOF’s comments on the CDFA Medical Cannabis Cultivation Program. Please contact me at [redacted] to discuss these issues further.

Sincerely,

[Signature]

Policy Director

6501 et seq.), and Article 7 (commencing with Section 110810) of Chapter 5 of Part 5 of Division 104 of the Health and Safety Code. California Code of Regulations Div. 8 Ch. 3.5 §19332.5 (a)

Control, Regulate and Tax Adult Use of Marijuana Act, No. 15-0103 §26062. “The Department of Food and Agriculture, in conjunction with the bureau, shall establish a certified organic designation and organic certification program for marijuana and marijuana products in the same manner as provided in Section 19332.5 of Chapter 3.5 of Division 8.” Control, Regulate and Tax Adult Use of Marijuana Act, No. 15-0103 §26062.
Dear Ms. Morris,

Attached please find Greenbridge Corporate Counsel's responses to MCCP Pre-rulemaking survey.

Regards,

[Redacted]

Greenbridge Corporate Counsel
425 Market Street
Suite 2200
San Francisco, CA 94105-2482

Please consider the environment before printing the contents of this email.

* * *

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* * *
principal

September 30, 2016

California Department of Food and Agriculture
Medical Cannabis Cultivation Program
Attn: Amber Morris - Medical Cannabis Cultivation Comments
1220 N Street
Sacramento, CA 95814
mccp.peir@cdfa.ca.gov

RE: Responses to MCCP Pre-rulemaking Survey

Dear Ms. Morris:

Greenbridge Corporate Counsel is a business law firm representing over 150 clients in the legal cannabis industry in California, Washington and Hawaii. Khurshid Khoja is the Principal of Greenbridge Corporate Counsel. He currently serves on the Board of Directors of the National Cannabis Industry Association (NCIA), serves as the General Counsel of the California Cannabis Industry Association (CCIA) and is a founding member of CCIA’s Board of Directors. Khurshid also serves as a registered state lobbyist for CCIA and the Arcview Group, working with lawmakers and regulators on clarifying and implementing California’s legal cannabis laws.

As General Counsel to CCIA, Khurshid worked alongside CCIA’s staff and lobbyist over two legislative sessions to shape the MCRSA. Additionally, Greenbridge Of Counsel Jesse Stout serves on the San Francisco Marijuana Legalization Task Force. Greenbridge Of Counsel Mitzi Vaughn serves as pro bono General Counsel of the Cannabis Alliance of Washington state.

On behalf of the Greenbridge Corporate Counsel, we write to respectfully offer the following responses to selected questions from the MCCP’s pre-rulemaking survey.

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DEFINE TERMS USED IN CANNABIS CULTIVATION

MCCP QUESTION: The Program will need to define terms not defined by the MCRSA such as canopy, flowering, immature, mixed light cultivation, premises and propagate to ensure regulations are implemented uniformly across the state. What do these terms mean to you?

RESPONSE: Premises should be defined in order to maximize use of the current inventory of properly zoned greenhouse and agricultural properties. Special consideration should be given to utilizing commercial greenhouse facilities formerly occupied by the cut flower industry, and revitalizing the surrounding communities’ job base as such, premises should be defined in a manner that permits
multiple licensees to co-locate their licensed operations within the same greenhouse facility if such facility can accommodate multiple licensees operating there. Defining premises in a way that permits co-location of licensees also lessens the burden on law enforcement, regulators, and auditors, who would need to travel to fewer facilities the perform their enforcement tasks under the MCSRA, premises should also be defined in a manner that permits a single cultivation site to hold both medical and adult use licenses should prop 64 pass in November; the same premises should be able to supply both the medical and the adult use markets.

**MCCP QUESTION:** The Program is considering a weapons and firearm ban at cultivation sites to protect State enforcement staff. How will that affect you?

**RESPONSE:** Medical cannabis businesses, especially cultivation sites, are frequently targeted by individuals and groups intent on committing armed robbery. In addition to the plants, thieves are often motivated by the ubiquitous presence of cash due to a lack of banking access in the industry. Many of these cultivation sites are in remote areas not easily accessible by law enforcement in an emergency. Business owners should have the option to hire armed security to defend the business and its employees from violent criminals, and should be able to exercise their rights of self defense under California law. Under MCRSA enforcement agencies would notify licensees of site visits and the risk of any accidental harm of enforcement officers would be eliminated.

**IDENTIFY THE CULTIVATOR LICENSE TYPES BY LIGHT SOURCE AND SITE SIZE; CLARIFY ALLOWABLE LICENSE COMBINATIONS; OUTLINE RENEWAL PROCESS AND SET LICENSING FEES**

**MCCP QUESTION:** Licensees are prohibited from obtaining licenses from more than two license categories. For example, a licensed manufacturer of cannabis products may also hold a cultivator license, but would not be allowed to then obtain a dispensary license. Additionally, the Program is considering issuing the same applicant several cultivator licenses as long as the total canopy does not exceed four acres. What is the acreage you feel is reasonable for the cap? How about for indoor and mixed light? How will this impact your business model? When does a cultivator also need a manufacturing license? Are joints, dry sieving, and water concentrating a form of manufacturing or within the scope of cultivation?

**RESPONSE:** The proposed 4-acre cap on cultivation should only be imposed consistent with the express language and intent of the MCRSA. While we agree with the MCCP that California Business and Professions Code (“BPC”) section 19328(a) does generally apply a limit of two licensing categories on most licensees, it also provides for several exceptions to this general rule, pursuant to BPC sections 19328(a)(9), 19328(a)(10) and 19328(c)(1). The 4-acre cap is only expressly referenced in BPC 19328(a)(9) of the MCRSA, and should thus only apply as a restriction to vertically-integrated cultivators licensed in the 10A Category which hold cultivation, manufacturing and dispensary licenses; the intent behind BPC 19328(a)(9) was to allow cultivators to choose between either (1) a vertically-integrated business model that guaranteed a market for their product or (2) the right to hold an unlimited number of Type 1, 1A, 1B, 2, 2A, 2B and 4 licenses with specific acreages capped by local jurisdictions. The 4-acre cap should not apply to businesses which hold licenses in only two license categories, per the express
language and intent of MCRSA.

CDFA should allow local jurisdictions to set their own caps on the acreage they will allow in their jurisdictions; some jurisdictions may elect to establish per licensee thresholds in excess of a 4-acre cap because of the availability of natural resources to support that use, while others may set that cap far lower than 4-acres in order to reflect the availability of resources in that particular jurisdiction. This deference to local capacity and judgment is evident in the language of BPC section 19328(c)(1), which exempts certain businesses from the general prohibitions against cross-category licensure by grandfathering businesses in operation no later than July 1, 2015 which operate in a vertically-integrated manner per local mandates. Unlike the exemption under BPC Section 19328(a)(9), section 19328(c)(1) doesn’t include an express cap on acreage, despite allowing vertically-integrated businesses—reflecting the non-voluntary nature of the choice to operate in a vertically-integrated fashion.

Nurseries, or Type 4 licensees, would also be disproportionately impacted by a 4-acre cap. Nursery operations (and especially plant-breeding and seed-production) requires space, given the large samples of plants required to conduct breeding successfully. Breeding and seed-production are critically lacking from the industry currently, and a healthy cannabis agricultural economy will rely on greater genetic development.

MCCP QUESTION: The Program is required to limit the number of Type 3 (largest license type) licenses issued. What method do you consider fair for establishing these limits?

RESPONSE: Since the MCRSA mandates a dual licensing system, as a matter of law the MCCP will not be able to set the cap of Type 3 at a number above what local jurisdictions are going to allow. However, MCCP should also not stunt the growth of the industry, and allow jurisdictions to compete for businesses by making the number of Type 3 licensees they think they can responsibly accommodate given their natural resources and infrastructure. As such, the number should be set in the regulations to be consistent with the total overall number of all Type 3 licenses made available by local jurisdictions throughout the state.

SPECIFY REQUIREMENTS TO MITIGATE ENVIRONMENTAL HEALTH AND PUBLIC SAFETY ISSUES

MCCP QUESTION: The Program will also have specific requirements for cannabis nurseries. Do you sell plants to a dispensary for sale to patients? Or do you sell plants to cultivators for flower production? How much research and development goes on at a nursery site? Do you regularly propagate from seed?

RESPONSE: Acreage caps on nursery operations should only be imposed consistent with the express language and intent of the MCRSA. Nursery operations (and especially plant-breeding and seed-production) requires space, given the large samples of plants required to conduct breeding successfully. Indeed, this need for adequate space is recognized in policy under BPC section 19332(g) of the MCRSA, which does not set express canopy limits on individual Type 4 licenses, but does set canopy limits on all other types of cultivation licenses. Given that canopy limits are not applicable to individual Type 4 licensees, it would be inconsistent with the intent of the MCRSA to apply any aggregate acreage caps to
nursery businesses operating multiple sites and holding multiple Type 4 licenses.

While BPC 19328(a)(9) of the MCRSA does expressly reference a 4-acre cap in relation to Type 4 licenses, it is only apply as a restriction to vertically-integrated cultivators licensed in the 10A Category which hold cultivation, manufacturing and dispensary licenses; the intent behind BPC 19328(a)(9) was to allow Type 4 nurseries to choose between either (1) being part of a vertically-integrated business model that guaranteed a market for their product or (2) the unrestricted right to cultivate at whatever scale necessary, with specific acreages capped by local jurisdictions. As such, the 4-acre cap should not apply to businesses which hold Type 4 licenses but don’t hold 10A licenses, per the express language and intent of MCRSA. CDFA should allow local jurisdictions to set their own caps on the acreage of nursery operations their jurisdictions can sustain.

Nurseries are a niche within the industry, and they provide a critical service. Cultivators around the state will need nurseries to provide healthy, pest- and disease-free plants of quality lineage. Nurseries will also be playing a key role in the creation of new plant "records" within the track and trace system. Because nursery production is a niche that most cultivators cannot fill, and because all other cultivation licensees are allowed under MCRSA to provide their own propagation services in-house if they wish, it is important for the preservation of the nursery industry that Type 4 licenses are allowed to grow sufficiently large in scale to meet the industry’s demand and to create the economies of scale that will allow them to produce plants for other cultivators at an affordable price.

Should you have any questions or wish to discuss Greenbridge’s position please don’t hesitate to contact me at [redacted]

Very truly yours,
From: Rains, Lindsay@CDFA on behalf of CDFA Medical Cannabis Cultivation Program@CDFA
To: MCCP_PEIR_CDFAR@CDFA
Subject: FW: MCRSA Comments
Date: Friday, September 30, 2016 4:00:42 PM
Attachments: MCRSA comments.docx
ATT00001.htm

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From: Sent: Thursday, September 29, 2016 1:43 PM
To: CDFA Medical Cannabis Cultivation Program@CDFA
Subject: Fwd: MCRSA Comments

Begin forwarded message:

From:  
Date: September 29, 2016 at 8:37:06 AM PDT
To:  

Agronomist
Grimmway Enterprise Inc.
Define terms used in cannabis cultivation:
Canopy- The square footage in which cultivation occurs. Walkways, storage areas etc. shall not contribute to canopy square footage
Flowering- The reproductive stage of the plant. Flowers, leaves, and seeds are produced at the end of the flowering cycle.
Mixed light cultivation- the supplementation of natural sunlight
Premises- area in which the potential applicant will do business. The term refers to all encompassing areas used for cultivation, manufacturing, testing, dispensing, etc,

Define the application process and requirements for licensing:
Online vs. Paper? Both
Weapons and Firearm ban? Medical cannabis patients are already banned from owning/buying firearms so that is of no effect. Registered security guards should be able to be utilized if desired and will be armed and trained.
How many applications do I plan on submitting? 5, depending on application cost and sq.ft tax
What Size cultivation site do you anticipate applying for initially?
   (1) Type 10a
   (1) Type 4
   (1) Type 3
How many separately licensed cultivation sites would you apply for? 4
What acreage reasonable for cap?
Restrictions relating to 4 acre combined grows need to be considered due to supply/demand issues. Medical collectives with valid business licenses prior to newly enacted MCRSA laws should have priority. Market analysis/estimated CA consumption studies are encouraged as the majority of CA cannabis production gets exported (very little info regarding what quantities are consumed on an annual level within the state)
How will this affect your business model? I fully expect the wholesale value of flower to fall due to over-supply so my business model is to diversify and generate better margins through a combination of retail sales, nursery sales, and wholesale production.
Are joints, dry sieving, water concentrating a form of manufacturing or within the scope of cultivation? Manufacturing
When does a cultivator need a manufacturing permit? When they want to trim/process/add value to their products.
What is a reasonable amount of light for mixed-light? Any amount needed to keep plants in the vegetative stage, within appropriate zoning and away from neighbors’ line of site.

What method is fair for establishing Type 3 licenses issued? Preform economic analysis of CA cannabis consumption, both the medical and black market, and base limit on statewide consumption. If permitting more acres than the state’s population consumes, market unsustainability and diversion will surely occur. For a 2% margin in the marketplace results in a 50% drop in price for the producer. CA is the nation’s leader in all Agricultural products, with cannabis no different. Maybe we can establish a system where other medical states that have supply issues can receive our imports.

How do you currently address environmental impacts at a cultivation site?

Identify where the source of water comes from, make sure no surface runoff cannot go into other parts of the property. Look for potentially environmentally sensitive area like dry stream beds.

Do you conduct targeted pesticide use? The only pesticides used are listed on the CA/WA/OR list of approved materials.

Do you recycle water/cultivation materials? All leftover plant material gets composted on site.

Do you currently secure your cultivation site? Yes. Alarm system? Yes. Fencing? Yes. Security Guard? No

Do you sell plants to a dispensary to sell to patients or do you sell plants to cultivators? Both

How much R&D goes on at a nursery site? Varies

Do you regularly propagate from seed?

Yes, and this would need to be considered in the nursery permit, where it should be allowed to flower plants to completion for seed production/breeding. This cannot occur at other cultivation sites as the market demands seedless flowers so seed production needs to occur within nurseries.

What measures do you currently make for safe site inspection? Electrical cords tidy, irrigation drainage maintained, general cleanliness.

What is the current flow of cultivation at your site? Flowers are harvested on site, cured, and driven to various medical cannabis collectives around the state. Clones are made on site and sold to patients and wholesale growers.

At what points do you thing movement tracking would be valuable? Tracking between harvest, processing/retain with a chain of custody.

Reasonable time frame for conducting a hearing regarding violation? 1 month

What license violation would you consider Minor? Accidentally falling out of compliance

Moderate: 3x fall out of compliance

Serious: Intentional fall out of compliance/ diversion
Amber Morris  
Branch Chief  
Medical Cannabis Cultivation Program  
CA Department of Food & Agriculture  
Direct line: (916) 263-1053  

Begin forwarded message:

From: <amber.morris@cdfa.ca.gov>  
Date: September 29, 2016 at 2:50:01 PM PDT  
To: <amber.morris@cdfa.ca.gov>  
Subject: 

Ms. Morris,

Please see the attached document for comments from [redacted] at this point on the pre-regulatory workshop survey. [redacted] will likely have more comments as the process moves forward and is very much interested in participating in any stakeholder's groups that may be formed to assist the program with the development of new regulations. His direct email is [redacted].
September 29, 2016

California Department of Food and Agriculture
Attn: Amber Morris
Medical Cannabis Cultivation Comments
1220 N Street, Suite 400
Sacramento, CA 95814
Email: mccp.pier@cdfa.ca.gov

Re: Comments on MCCP Pre-Regulation Workshop Survey

Dear Ms. Morris,

This letter provides comments on seven Regulatory Goals laid out in the MCCP’s Pre-Regulation Workshop Survey. By way of introduction, McAllister Law Office, P.C. is a leading marijuana industry focused primarily on three states, Colorado, California, and Florida. Beginning with the very first marijuana businesses that emerged in 2009 in Colorado, the Firm has represented hundreds of medical and recreational dispensaries, grows, infused-product manufacturers, and related businesses; including, lenders, investors, landlords, social media companies, trim companies, consultants, vendors, inventors, and packaging companies. The Firm is well-known for defending businesses against alleged rule violations and negotiating successful outcomes, at both the state and local levels and the Firm also has significant expertise in mergers and acquisitions, including the buying and selling of marijuana licenses and their related testing laboratories. The Firm currently represents some of the leading marijuana companies in Colorado and nationwide and represents a large number of ancillary and businesses.

These comments touch on many, but not all, of the issues identified in your Survey. I have focused my comments on issues that I feel are the most important or where my Firm has specialized knowledge that may be useful to you. If an issue you identified is not addressed it does not mean from our perspective the issue is not important.

Regulatory Goal #1

Immature

In Colorado, marijuana plants that are less than eight inches tall are considered immature plants and they are excluded from the official plant count. This is a good policy because up to 50% of
such plants may never progress to the next stage of cultivation for a variety of reasons (poor genetics, disease, or other business decision related reasons).

Premise

The definition of premise is essential to creating certainty for licensees. In Colorado, only licensed employees are entitled to be in the “limited access areas (areas under active cultivation, processing, manufacturing, or distributing). It is important to narrow the scope of the definition of premise to that companies can house other entities in the same building (such as a branding company or CPA component) where such businesses and employees may be completely separate from the marijuana business.

Regulatory Goal #2

As far as how many applications you can expect, I would assume the number will be at least 10,000, if not significantly more. In Colorado, there are approximately 2000 grow licenses to serve a state of 6 million people. If you multiply that time seven to get to California’s population of 42 million, you may have as many as 12,000 grow licenses. Another way to estimate grows is to work backwards from the total quantity of marijuana expected to be sold. While yields vary, assuming a yield of 2 pounds per light, or per 10 square feet of canopy, California may need up to 1,000,000 metric tons of supply to satisfy the market. In Colorado in 2015, the industry produced 150,000 metric tons to supply 6 million people.

Regulatory Goal #3

As far as caps on cultivation licenses, my firm is a strong believer in the free market. The free market by itself will determine how many licenses are viable in California. However, if there is going to be a limit, I believe a collective limit of 4 acres is much too small. Again, given the quantity numbers below, and the enormous cost of pervasive regulation that licensees will bear, companies will not be able to afford the high cost of compliance with only small grow facilities. An industry of thousands of postage size grows will sap the profitability out of the cultivation system. In Colorado, we’ve seen wholesale prices plummet to $1000/pound, with costs of production averaging $800/pound. With that small margin, companies will not be able to afford the pervasive regulation costs (cameras, seed to sale tracking, etc) unless they are allowed to have larger operations that maximize economies of scale. My sense is that a 10 acre cumulative limit might be reasonable. If that cap seems to high, it would not be unreasonable to allow cultivators to increase in size from 4 to 10 acres over time while ensuring they can sell all or most of the product they grow. In Colorado, cultivators can increase their garden size upon showing they are selling at least 85% of the product they grow.

In addition, please clarify if a licensee can obtain multiple cultivation license for the same address. For example, if a licensee has a 88,000 sq. ft. building, can they obtain 4 licenses for the same building? Next, some cultivators are currently growing in spaces larger than 88,000 sq. ft. If the local regulator allows such large grows, will these grows larger than 4 acres be grandfathered?
Regulatory Goal #5

With regard to the availability of records onsite, this has been a major issue in Colorado. In Colorado, licensees are required to have myriad records on hand for inspection by regulators. The problem with this facially reasonable requirement is that human error often leads to a situation where companies do not have all required records physically on hand. This results in state enforcement actions, fines, and an obfuscation of state investigations. My recommendation is to create a cloud based system that is accessible remotely and require all licensees to upload all information to the cloud based system. This way, regulators will always have access to company records and the location of the physical paper will become irrelevant.

Regulatory Goal #7

Ensuring robust procedural rights for cannabis business will be essential to developing a respectful relationship between the industry and regulator.

If there is an emergency situation justifying a summary suspension of a licensee’s right to operate, these cases should be handled promptly to avoid manifest injustice. For example, prompt hearings, within 30 days are necessary to avoid the situation where a licensee is shut down for a violation, loses its revenue stream, and then is unable to defend itself or present its case because it is no longer operating. A summary suspension hearing should be separate from a full hearing on the merits to determine the appropriate penalty for a violation. The focus on the summary suspension hearing should be whether there was a true public safety threat or emergency justifying shutting down the company.

If the enforcement action is not an emergency or a serious public health threat, rules violation cases should still be resolved within 6 months. Many times, a company that violates the rules will look to change owners or force the offending manager or owner out of the business. If these cases are not resolved in a reasonable amount of time, it will impede a business’ ability to move on from the violation and change owners. Changes of ownership should be allowed even during an enforcement action at the agency’s discretion. Many times the best solution for improving compliance is changing owners.

Finally, companies will spend significant resources in starting up and operating these licenses. Unless the rules violations are major, repeated, and serious, an entrepreneur should not lose a license for mere unintentional negligence in following the rules, which will likely be complex and frequently changing in the early years of the program. Other than selling to minors on a repeated basis, selling out the back door, allowing cartel or felons to control the business, or using the business to launder other illegal money, fines and short term suspensions of licenses should be sufficient penalties. When people talk about “public safety” risks to marijuana rules violations, it is important to remember that marijuana is readily available in California and that it is less harmful than other legal drugs, such as alcohol and tobacco. Penalties should be analogous to alcohol license punishments, where simple negligence rarely results in the loss of a license.

Thank you for your thoughtful consideration of our comments. Do not hesitate to follow up if you need clarification of our comments.
Sincerely,
Hello,

I hope this finds you well. Please find attached the Fernandeño Tataviam Band of Mission Indians' response. Please confirm that you have received this message.

Respectfully,
Kimia

--
Director, Public Relations

Fernandeño Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, California 91340

Website: http://www.tataviam-nsn.us
SEN VIA EMAIL

September 26, 2016

RE: MEDICAL CANNABIS CULTIVATION PROGRAM COMMENTS

Dear Amber Morris,

The Fernandeño Tataviam Band of Mission Indians (Tribe) thanks you for the opportunity to consult on the above referenced project (Project) for Tribal Cultural Resources under the California Environmental Quality Act, Assembly Bill 52 (Gatto, 2014).

The Tribe has reviewed the submitted document(s) and has the following comments:

The Tribe would like to consult on the proposed Program to ensure proper mitigation to cultural resources within the Fernandeño Tataviam Tribal Territory.

If you have any questions regarding the letter, please contact Kimia Fatehi at (818) 837-0794 or via email at thcp@tataviam-nsn.us between 9:00 am to 3:00 pm, Monday through Friday.

Sincerely,