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Cannabis Administration & Opportunity Act

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September 1, 2021

COMMENTS OF NY SMALL FARMA LTD.

TABLE OF CONTENTS

INTRODUCTION..... 1

I. EXECUTIVE SUMMARY..... 2

II. CLIMATE RESILIENCY AND ENVIRONMENTAL REGENERATION MUST BE A CORE VALUE OF AUTHORIZING CANNABIS CULTIVATION AND USE..... 6

A. Environmental Degradation is the Biggest Threat We Face Today..... 6

B. Cannabis Cultivation Has Enormous Environmental Consequences that Must be Addressed Directly Now.....8

1. Industrial Indoor Cannabis Cultivation Unacceptably Accelerates Carbon Emissions..... 8

2. Excessive Plastic Use in the Cannabis Sector Harms the Planet and our Health..... 12

3. The Cannabis Waste Stream Cannot be Allowed to Pollute Our Ecosystem and Undermine Environmental Justice..... 14

4. Cannabis Cultivation Must be Accountable for Water Usage and Conservation..... 16

III. TOXIC PESTICIDES, HERBICIDES, GROWTH STIMULANTS AND ALL SYNTHETIC CHEMICALS SHOULD BE BANNED FROM CANNABIS CULTIVATION..... 18

IV. LEGALIZATION OF ADULT-USE CANNABIS SHOULD OPEN THE MARKETPLACE FOR SMALL, INDEPENDENT AND CRAFT PRODUCERS, NOT HAND IT TO LARGE OPERATORS AND ENTRENCHED COMPANIES..... 20

V. SOCIAL EQUITY MUST BE FOSTERED BY CONTINUED COMMITMENT TO ECONOMIC INCLUSIVITY.....24

CONCLUSION..... 29

ENDNOTES..... 30



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COMMENTS OF NY SMALL FARMA LTD.

New York Small Farma Ltd. (“NYSF”) is a New York nonprofit and 501(c)(3) dedicated to educating the public, industry and government officials about the importance of economic inclusivity, environmental regeneration and social justice in cannabis law, policies and regulations. We submit these comments on the Cannabis Administration and Opportunity Act (“CAOA”) draft language and summary, released on 14 July 2021 (the “Draft”).

INTRODUCTION

As a New York-based educational organization, NYSF has been actively engaged in the discussions regarding cannabis policy for several years in New York state. On March 31, 2021, New York state passed the state Cannabis Act (also known as the Marihuana Regulation and Taxation Act or MRTA), Chapter 7-A of the Consolidated laws of New York. This law is the most forward-looking adult-use cannabis law in the country in many key aspects and federal policymakers should learn from these successes. Social, environmental and economic equity must be at the core of change in federal cannabis law.

NYSF is one of the few organizations educating consumers, industry, and government officials on the environmental impacts of a legacy and legalized cannabis community. As a result of substantial input and collaboration, New York’s Cannabis Law

includes a clear commitment to create new industries; improve the state's agricultural sector; protect the environment; improve the health, welfare, and safety of people; increase employment, redress impacts of racially disparate enforcement of prohibition laws; and improve climate resiliency.

Cannabis license applications in New York will consider the ability to increase climate resiliency and minimize or eliminate adverse environmental impacts, including water and energy usage, carbon emissions, waste, pollutants, harmful chemicals and single use plastics. The law requires regulations, standards, and guidelines be guided by sustainable, organic, and regenerative farming principles and practices. Instead of cannabis almost exclusively grown on an industrial scale, inside warehouses by large multi-state operators ("MSOs"), an outdoor, small farm and microbusinesses can now become a reality.

The law also sets a goal of 50% of all licenses to go to social and economic equity applicants, including individuals from communities disproportionately impacted by the enforcement of cannabis prohibition, minority-owned businesses, women-owned businesses, and "distressed farmers," which includes those who have been historically underrepresented in farming. Those who have been marginalized should be given a full and fair opportunity on a level playing field to enter this new industry.

It is against this background of knowledge and experience we submit these comments on the Draft.

I. EXECUTIVE SUMMARY

At the outset, NYSF highly commends the Senate leadership on its efforts to de-schedule cannabis as a classified substance, release prisoners and expunge the records of

non-violent cannabis offenses, address the social and economic harms inflicted on communities by the uneven enforcement of drug prohibition policies, and legalize the use and sale of this plant, cannabis products, and associated businesses. Changing federal law for cannabis is momentous and we thank Senators Booker, Schumer and Wyden for their leadership on this important issue.

NYSF is an ardent supporter of change in the public policies around the plant *cannabis sativa spp.* We recognize the Draft is the beginning of the conversation on how to move the country towards federal decriminalization and a federally supported cannabis industry founded in social justice and economic inclusivity. While we offer general feedback on aspects of the Draft where we have expertise, there are vital areas of consideration that have been completely omitted from the Draft and we largely focus on these critical aspects. Social justice is just one leg of the three-legged stool and it is not enough. For cannabis policy to stand soundly requires social justice, environmental regeneration and economic inclusivity.

The CAO completely misses the fact that cannabis is a plant, a crop, and it can either contribute to a rapidly degrading environment or become part of the solution. Environmental degradation falls disproportionately on the same people and communities that have suffered the most in the name of cannabis – communities of color and others who have been discriminated against, marginalized or disadvantaged.¹

Reducing carbon emissions has been hailed as the most significant action we can take to address and resolve climate change, the biggest crisis facing the planet and its life today.² In the last 100 years, cannabis cultivation has mostly occurred indoors due to its

century long illegality and prohibition, making it the nation's most energy intensive crop, due to the energy demands to recreate nature indoors.

One study found that indoor cannabis production results in energy expenditures of \$6 billion each year--more than that spent on energy to make all pharmaceuticals consumed in the US--with electricity use equivalent to that of 1.7 million average U.S. homes. This corresponds to 1% of national electricity consumption or 2% of that in households and this number is rising. The yearly greenhouse-gas pollution (carbon dioxide, CO₂) from the electricity plus associated transportation fuels equals that of 3 million cars.³ In addition to creating controlled atmospheric conditions, the level of plastics needed to conduct such operations as well as plastic requirements in packaging also substantially contributes to its overall carbon footprint.

Notably, the authors of that same study find that "Outdoor cultivation—which has sufficed for millennia and could meet all U.S. demand with only 0.01% of current farmland—is the most technologically elegant, sustainable, ethical, and economically viable approach for minimizing the rising energy and environmental burden of cannabis production."⁴

The Biden White House has made it clear that addressing climate change is a fundamental priority for the well-being of our nation and the world.⁵ Right now, the country is attempting to reduce carbon and other greenhouse gas emissions, reduce the use of plastics in the consumer products stream (e.g., by banning plastic bags), reduce toxic chemicals that are killing species and polluting our planet and conserve and promote clean water. That's why it is particularly ironic that at the same time, many states and now the federal government are giving birth to an entire new industry that will

create massive amounts of greenhouse gas emissions, increase the plastic waste stream, ramp up the use of environmentally damaging synthetic chemicals (e.g., pesticides, fertilizers, growth stimulants, etc.) unless there are safeguards to prevent this.

If these environmental impacts are not fully considered and addressed directly at the outset, legal cannabis will end up creating negative impacts on human health, local ecosystems, and the health of the planet. Ignoring the potential harmful effects of environmental degradation caused by a legalized cannabis industry not only nullifies our nation's attempt to address climate change, environmental protection, and the crushing pollution of single-use plastics, it counters social justice efforts. Just as the prohibition policies have disproportionately impacted communities of color, environmental degradation and the worst impacts of climate change also disproportionately negatively impact communities of color who all too often bear the brunt of poorly regulated extractive industries.

There is also a need to take a more critical lens to create more inclusive cultivation and business participation to address social justice and economic inclusivity. The criminalization of cannabis has been a stain on the justice system at both the state and the federal level for far too long, creating negative implications that are far reaching for individuals and communities. So much suffering has been imposed in the name of cannabis and yet research study after research study shows it can benefit people with its diverse healing properties, often without the side-effects of prescription pharmaceuticals.⁶ Providing redress through collected taxes is not enough. Individuals and communities who have suffered must be afforded market access and a path to prosperity.

The government's understanding of and perspective towards cannabis needs to expand. Small businesses that work with or in connection with the plant, starting with the literal ground and the farms and co-operatives that cultivate cannabis to the processors and to the consumers must be supported and freed from capture by dominant corporations. We cannot continue the failed policies of large-scale agriculture.

If states and the federal government intend to reap the tax benefits of a legalized cannabis industry, then they have a responsibility to help individuals (not only large well-funded and connected entities) to enter the market and be able to compete when the prohibition laws come down. To this end, we underscore that communities of color, women, indigenous, low-income and other marginalized people have historically been left out of the agriculture sector. A comprehensive reform of cannabis laws and policies must include ways to improve these constituents' ability to gain access to land for farming purposes.

For these reasons, we fully support the recognition in the Draft of anticompetitive conduct by large MSOs and others and urge these protections be expanded and regulations offer the flexibility to quickly stem such conduct as it arises. Cannabis is similar to other goods and practices insofar as it is susceptible to price squeezes, supply chain manipulation, collusion, and a litany of other practices, which are likely if left unchecked. Already such practices are happening and since we can expect the multi-billion market to expand rapidly once federal legalization occurs, these practices are likely to multiply exponentially.⁷

Finally, NYSF does not support the inclusion of synthetically derived THC in legislation that will de-schedule the cannabis plant. Whatever its merits (and it may also have of significant environmental and health downsides), it is not *cannabis sativa spp.* and should be

considered elsewhere. All cannabis cultivated for adult-use should be produced through regenerative agriculture techniques with the aim to improve climate resiliency and offer the greatest amount of inclusive economic opportunity.

II. CLIMATE RESILIENCY AND ENVIRONMENTAL REGENERATION MUST BE A CORE VALUE OF AUTHORIZING CANNABIS CULTIVATION AND USE

A. Environmental Degradation is the Biggest Threat We Face Today

The Biden White House has made it clear that addressing climate change is a fundamental priority for the well-being of our nation and the world.⁸ Just last month, the Intergovernmental Panel on Climate Change (“IPCC”), the United Nations body for assessing the science related to climate change, released a stunning report documenting the dire state of our environment. The report, released as the first part of the *Sixth Assessment Report, Climate Change 2021: The Physical Science Basis*, provides a clearer picture of the climate crisis to date, based upon the research and observations of over 200 scientists. Notably, many of the changes we will see are unprecedented and likely irreversible. UN Secretary-General, António Guterres, described the report as a “code red for humanity.”⁹

The United Nations report, approved by 195 governments and based on more than 14,000 studies, determined that more than a century of extractive energy use has heated the planet by roughly 2 degrees Fahrenheit. Because of existing emissions, additional warming over the next three decades is inevitable. Moreover, the brunt of environmental degradation and climate change falls on the most vulnerable: women, people of color and the poor. According to Katharine K. Wilkinson, a co-author of the climate anthology “*All We Can Save*,” notes that while climate change is a collective problem, the top 1 percent of income earners globally (mostly white men), are responsible for more carbon

emissions than the bottom 50 percent of earners.¹⁰ That’s roughly 70 million at the top compared with 3.5 *billion* at the bottom. The burdens of environmental disaster include displacement, as well as increased homelessness, poverty, violence and disease.¹¹ As Ms. Wilkinson puts it, “the climate is a multiplier of any cracks, imbalances or injustices that are present in current society. It amplifies them.”¹²

These findings underscore that no new crop – including cannabis – should be introduced into this country without fully acknowledging how it will impact our environment and the most vulnerable in our population. We are already suffering the vast destruction from industrial agriculture with monocropping, heavy pesticide usage, extractive methods and petrochemical reliance. These practices affect our earth, our water, our air and the health of every living being on the planet. To import that failed model for cannabis and compound the destruction by allowing, or even promoting, indoor cannabis growing is beyond reckless. Federal policymakers must acknowledge and address this potential to avert even greater climate disaster.

B. Cannabis Cultivation Has Enormous Environmental Consequences that Must be Addressed Directly Now

1. Industrial Indoor Cannabis Cultivation Unacceptably Accelerates Carbon Emissions

It has become evident that a major driver of the climate crisis is carbon and other greenhouse gas emissions. Already the federal government and many states are seeking to reduce carbon emissions and cut energy use with targets that attempt to reduce the *status quo* of numerous existing industries, including agriculture, that generate detrimental carbon footprints.¹³ As our soils degrade, they lose the ability to hold their

vast reserve of carbon, thus releasing disastrously large amounts of CO₂ into our atmosphere.¹⁴

Current practices for indoor cannabis cultivation create excessive (and largely unnecessary) carbon dioxide emissions. As a new industry, without the entrenched systems that we now know are destroying our planet, cannabis cultivation should not be permitted to add to this growing crisis.

The industrial indoor cannabis cultivation industry is among the worst of the offending greenhouse gas polluters in the nation.¹⁵ Industrial indoor cannabis cultivation is 50-200 times more energy-intensive than a typical office building.¹⁶ For context, the energy to produce one cannabis joint is roughly equivalent to the amount needed to produce 18 pints of beer and an indoor grow system for only four plants sucks up as much energy as 29 refrigerators running full-time.¹⁷

One study found that indoor cannabis production results in energy expenditures of \$6 billion each year--more than that spent on energy to make all the pharmaceuticals consumed in the US, with electricity use equivalent to that of 1.7 million average U.S. homes. This corresponds to 1% of national electricity consumption or 2% of that in households, and this number is rising. The yearly greenhouse-gas pollution (carbon dioxide, CO₂) from the electricity plus associated transportation fuels equals that of 3 million cars.¹⁸ In addition to creating controlled atmospheric conditions, the level of plastics needed to conduct such operations as well as plastic requirements in packaging also substantially contributes to the overall carbon footprint.

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farmland—is the most technologically elegant, sustainable, ethical, and economically viable approach for minimizing the rising energy and environmental burden of cannabis production.”¹⁹

Research published in a Colorado State University study earlier this year found that with indoor cannabis cultivation, for each kilogram of dried cannabis flower across the United States, anywhere from 2,283 to 5,184 kg of carbon dioxide is emitted, depending on geographic location.²⁰ Put differently, producing one ounce of dried cannabis is equivalent to burning a full automobile tank of gasoline.²¹

The energy used to cultivate cannabis indoors comes from numerous sources though the bulk of the energy use comes from lighting, heating, ventilation, cooling, and dehumidifying the controlled atmosphere. Even though there are advances in lighting systems, the high-intensity grow lights that are typically used still run for 12, 18, or 24 hours each day, depending on the stage of the plant life cycle.²² In addition, to increase plant photosynthetic activity and stimulate the plants to reach maturity sooner, CO₂ is also commonly introduced to indoor grow environment through CO₂ generators, increasing the energy and environmental demands.²³

By contrast, a switch to outdoor or even greenhouse cultivation could reduce emissions approximately by 96% and 42% respectively.²⁴ Compared to indoor growth, outdoor cultivation would require only about 22.7 kg CO₂ and greenhouse growing would require 236.6 kg CO₂, still a fraction of indoor requirements.²⁵ In fact, of all the energy used to cultivate cannabis today, about 80% of greenhouse gas emissions are attributed to methods specific to indoor cultivation.²⁶

One factor that policymakers should also confront head-on is the perverse energy incentives at work. Despite the significant energy needed for indoor cultivation, cheap industrial rates that subsidize energy specifically for indoor growers drives growers towards indoor cultivation. Policymakers further exacerbate this method of cultivation by offering incentives for energy efficiency, as if inefficient use of energy is an acceptable starting point for any new industry. Instead of incentivizing outdoor or hybrid greenhouse growing, both of which have significantly less energy and carbon emissions footprints,²⁷ regulations often discourage or prohibit outdoor grows. Rather than creating incentives to literally burn up our earth, tax and rate adjustments should nudge would-be cultivators to choose more climate-friendly paths like outdoor and greenhouse cultivation, especially for those in less energy efficient areas.

While the regulators currently struggle with economic efficacy in getting the existing agriculture sector to assist in reducing greenhouse emissions and improving climate resiliency, it would be relatively easy to create inducements from the start such as through tax incentives, low-cost loans, and research grants to willing outdoor cultivators, all of which could immediately steer cannabis cultivation towards environmental health.

Notably, the proposed division of regulatory responsibility among the federal agencies in the Draft for this new energy-intensive crop excludes both the Department of Agriculture and the Environmental Protection Agency. This omission highlights that the proposed approach to regulatory management of cannabis has mistakenly continued to view cannabis only as a controlled substance to be managed versus an agricultural crop with the potential for health benefits and as a font of potential economic opportunity.

In response to the questions asked in the Draft, we believe adult-use and hemp cannabis should be classified as an agricultural crop. Moreover, to holistically address all the implications of a new cannabis industry, we recommend affording the Department of Agriculture and the Environmental Protection Agency an important role in oversight and regulation of a legalized cannabis industry rather than looking only to the Food and Drug Administration, the Alcohol and Tobacco Tax and Trade Bureau and the Bureau of Alcohol Tobacco Firearms and Explosives. Cannabis is decidedly different than alcohol, tobacco and drugs and should not be relegated only to these agencies. To address the myriad of issues presented by cannabis, we recommend creating a coordinating body to properly ensure coordination and avoid duplication.

2. Excessive Plastic Use in the Cannabis Sector Harms the Planet and our Health

The use of plastic has increased over 40 percent in less than a year and a half and much of it is making its way into our lakes, rivers, and oceans. There are an estimated 51 trillion pieces of plastic already in our oceans.²⁸ This plastics crisis is growing out of control.²⁹ Over a million animals die each year from ingesting or becoming entangled in plastic. Thirty years from now there could be more plastic in the sea than fish.

Fish, seabirds, mammals and crustaceans have all been killed from bellies full of plastic and when their bodies decompose, the plastic is released back to the open water to kill again, because plastics don't disappear. It can take 450 years or more for plastic to break down into microplastics. That's 450 years of killing marine wildlife over and over. Our planet is already overrun with plastic pollution. Every minute, the equivalent of an entire garbage truck of plastic is dumped into our oceans. A majority of this plastic is single-use.

In the cannabis industry, awareness is spreading about the plastics problems.³⁰ Some companies are turning to alternative materials such as glass, hemp and even recycled ocean plastics, but it is not enough. Often the problem is misguided state laws and regulations that ignore the fact that there is no evidence whatsoever that shows that excessive plastic packaging works to keep children from intoxicating substances. In fact, common sense shows otherwise as we don't require alcohol and cigarettes to be sold in plastic. Underage access is a legitimate issue and to address it, we need solutions that work, not simplistic answers that are not evidence-based.

In reality, there is no reason to use plastic packaging in the cannabis industry. The federal legal framework should take the lead and underscore that adding more plastics into the waste stream and our environment is unacceptable, especially when hemp and other more environmentally-friendly materials like glass and paper are readily available as alternatives. Recycling and reusing packaging should also be encouraged not frustrated. Hemp itself offers possibilities as do refillable options which are being increasingly deployed for consumer goods.³¹ Where the states have failed to look at this issue comprehensively, a federal policy direction can help preserve our waterways, communities and protect marine wildlife.

Plastic packaging also generally contributes to needless greenhouse gas emissions. The widespread use of plastics and the lack of eco-friendly packaging means more non-degradable waste that feeds even more methane, CO₂, and other greenhouse gases into the atmosphere. Unfortunately, in many cases, companies that are making the effort to promote more environmentally friendly packaging for a variety of cannabis

products are frequently impeded by laws and regulations, often premised on the largely unsupported belief that plastic packaging can be easily made “child proof.”

Plastic packaging can also be highly toxic, an issue almost completely ignored in the cannabis context. As we’ve seen in the context of food and cosmetics, there is the critical issue of chemical migration: chemicals that are present in packaging transfer into the packaged items and thus unwittingly become part of the human intake.³²

New studies are now showing that plastics leach toxic chemicals into the water as they slowly decompose. This is not an appropriate packaging for a product that is often used for wellness. Hazardous chemicals, such as endocrine disrupters, carcinogens, or substances that bioaccumulate, are collectively referred to as “chemicals of concern.”³³ They can transfer from plastic packaging into the products such as cannabis flower, edibles, medicinals and more, together with other unknown or toxicologically uncharacterized chemicals. This chemical transfer is scientifically undisputed and makes plastic packaging a known, and avoidable, source of human exposure to synthetic, hazardous, and untested chemicals.³⁴

Again, while policymakers and scientists are just beginning to tackle the existing harms of this toxicity in food packaging, such as fast-food wrappers,³⁵ there is no reason to introduce these same problems into a new industry now that we know of their harms.

3. The Cannabis Waste Stream Cannot be Allowed to Pollute Our Ecosystem and Undermine Environmental Justice

Disposal of unused or discarded cannabis and cannabis-related waste is a complex issue. Waste from the cannabis industry can be biomass and general waste (plastics, paper, etc.) and both of those can be organic or hazardous waste (chemicals from

processing). Hazardous waste can come in the form of discarded plant material containing THC as well as chemicals used in the manufacturing and extraction processes.

While estimates of current waste levels are unreliable, California waste removal companies have reported that a mid-sized manufacturer can produce 250-500 pounds of waste daily.³⁶ Cultivators, both outdoor and indoor, produce large amounts of waste as well. While reducing the waste stream is one side of the issue, the other and larger problem, is how regulators require disposal of the waste. Comprehensive policies should encourage solventless (without chemicals) processing and allow organic material uncontaminated by synthetic chemicals to be used in composting versus disposed of in accordance with hazardous waste removal requirements.

The issue of disposal of unused or discarded cannabis or cannabis-related waste is complex, whether ensuring cannabis products are discarded in a location that an animal or child cannot come into contact with it and ingest it or that expired products are not sold or used in an unregulated manner, or simply that biomass is appropriately disposed of. Given its current illegal status at the federal level, transporting waste over state lines is not an option for cannabis and cannabis products. We note that parts of the unused cannabis plant may also be considered hazardous, either because they contain psychoactive THC (e.g., spent plant or seeds) or are contaminated due to use of chemicals, which is why we need a carefully considered regulatory framework for disposal that will also reduce environmental impact of adding to our landfills and waste streams.

No waste should be permitted to enter the ecosystem and the use of synthetic chemicals and fertilizers should be banned. Runoff, including organic, should not be

permitted to enter natural waterways. That said, cannabis-based waste – whether it is stale or unsold flower, discarded stems and seeds, byproducts of processing, etc. – should not all be regarded and controlled in a manner similar to hazardous waste, asbestos waste, and other selected wastes.

While discarding cannabis contaminated with solvents that are classified as hazardous chemicals should follow current protocols for such chemicals, it is unnecessary to implement a scheme whereby only certain designated waste haulers will be permitted to haul away the cannabis waste, and only certain designated landfills, incinerators, recyclers or other disposal facilities will be allowed to accept it. Where possible, regulators should require cultivators to compost spent biomass.

4. Cannabis Cultivation Must be Accountable for Water Usage and Conservation

Currently, with access to clean water to grow food an ever more urgent issue, the introduction of cannabis into the rotation of agricultural crops will exacerbate the scarcity of this resource. Clean water is one of the biggest environmental priorities in the world right now – it is a critical resource that affects human health, biodiversity, and so much more and is directly impacted by our agricultural methods. Today, industrial agriculture is producing crisis levels of runoff – pollution that washes off farm fields after rain events and into our rivers, streams, and oceans.³⁷ That runoff carries synthetic chemicals, fertilizers, and eroded soil that contaminate our waterways.

While new studies are showing varying results, a 2018 report from California Department of Fish and Wildlife Habitat Conservation Planning Branch estimates that indoor grown cannabis plants need about 6 gallons of water a day, largely due to exposing the plants to long hours of high intensity lights.³⁸ That is more than double the

daily amount of water needed to grow wine grapes. The water needs of the cannabis industry in the Northwestern United States is expected to double in the next 20 years.³⁹

We cannot afford to ignore the impact cannabis will have on this precious resource.

Instead of emulating the path of other agricultural crops, which even outdoors rely on monocropping and energy-intensive methods and contribute to pollution and ill health, policymakers should promote outdoor, small-scale regenerative agricultural practices that directly address the issue of wasteful water and harmful runoff.

Regenerative growing is centered on conservation and rehabilitation which supports a virtuous farming cycle, such as topsoil generation, biodiversity, bio-sequestration, and crucially, improvement of the water cycle. Regenerative farming practices such as companion planting, reduced tillage, mulching, the shunning of synthetic pesticides and extensive use of crop covers help reduce water usage and reduce soil erosion and runoff. These practices minimize the need for mechanical watering and allow the soil to conserve and better utilize existing groundwater and rainfall.⁴⁰

Simply put, regenerative farming benefits water quality and quantity. Less chemical and pesticide inputs for regenerative cultivation means less chemical pollution impacting ground and surface water, and in turn, a reduction in harmful algal blooms and drinking water pollution. Improved water efficiency from better soil health leads to better soil water holding capacity and groundwater recharge, as well as more water conserved on the farm or ranch and more resilience to withstand floods and drought.⁴¹ By focusing on building the soil to support life, regenerative growing aids water management within farms with better water retention in the soils and a lower necessity for chemical inputs which can leach into water supplies.⁴²

III. TOXIC PESTICIDES, HERBICIDES, GROWTH STIMULANTS AND ALL SYNTHETIC CHEMICALS SHOULD BE BANNED FROM CANNABIS CULTIVATION

As it has evolved, the cannabis industry has come to rely upon massive quantities of synthetic chemicals, from pesticides to herbicides, to growth stimulants and more. This is especially true for indoor grow operations, because it is easier and less risky for businesses to spray regardless of health and environmental impacts rather than risk losing a crop. It is vital for human and environmental health that cannabis be cultivated without the use of synthetic chemicals and with adherence to the highest standards of testing and product purity.

Pesticides and synthetic fertilizer have implications in all agriculture and even more so for cannabis, which is a product that is always heated to activate the psychoactive phytochemicals. Even cannabis that is not smoked, such as that processed as tincture or for topical application, requires the product to be heated as part of manufacturing and processing. Yet, even synthetic pesticides and other chemicals that have been deemed safe for human consumption are often untested or have been shown to have serious consequences when they are heated since burning can cause decomposition of the pesticide, forming toxic mixtures.⁴³ For example, myclobutanil, commonly used on cannabis and grapes, while considered safe on grapes, turns into hydrogen cyanide when heated, a compound the CDC classifies as a chemical warfare agent.⁴⁴ Myclobutanil has been used in cannabis in the US and Canada, where sometimes it's discovered and other times it's not.⁴⁵ In a nutshell, combustion of synthetic chemicals catalyzes reactions that often produce toxic and noxious chemicals, dangerous for humans.

Large-scale industrial monoculture cannabis production regularly relies on synthetic chemicals since growing this way carries increased risks of mites, aphids, gnats, mold, mildew and other diseases.⁴⁶ Large cannabis operations rely on the government not having sufficient resources to catch them using these chemicals, and when they are caught, count on buying their way out with a fine.⁴⁷

The nature of cannabis flower is sticky since the trichomes that produce the health benefits in the flower are glands that produce a sticky resin. This resin causes longer residue times for pesticides and fertilizers. Unlike food items that are ingested, which enter the digestive system where they are submerged in stomach hydrochloric acid and then filtered through several organs in the digestive system, cannabis is frequently combusted and inhaled directly into the lungs and therefore directly into the blood stream. Notably, the Environmental Protection Agency hasn't evaluated pesticide use related to the crop given its scheduling as illegal. Simply following established standards for food-based crops as appropriate for cannabis would be wholly negligent and dangerous to consumers. The strictest no-harm policies must be applied when regulating substances that can be applied to the plant.

Further, pesticides and rodenticides used by cannabis cultivators to keep pests away from their crop, pose an unacceptable harm to wildlife. In California, where unlicensed cannabis operations both indoor and outdoor were once prevalent, it was determined that 80 percent of Pacific fishers, a mammal under consideration for the Federal Endangered Species Act, have declined due to such pesticides.⁴⁸

These serious issues underscore the importance of ensuring that federal oversight, through both the Department of Agriculture and the Environmental Protection Agency is

necessary. The guidelines must be evidence-based and demonstrate the safety of any chemicals before they can be used for cannabis cultivation for products intended for human use.

IV. LEGALIZATION OF ADULT-USE CANNABIS SHOULD OPEN THE MARKETPLACE FOR SMALL, INDEPENDENT AND CRAFT PRODUCERS, NOT HAND IT TO LARGE OPERATORS AND ENTRENCHED COMPANIES

New York, along with other states, has explicitly recognized the value in ensuring the new cannabis industry does not become dominated by large businesses and has adopted a goal of 50% of licenses for equity applicants.⁴⁹ Federal law and policy should start with this same goal rather than assume, as the Draft seems to, that large MSOs and other large entrenched companies will be the dominant model for the emerging cannabis industry in interstate commerce.

A key reason that social equity efforts in virtually every state have failed is that large operators have taken over the cannabis industry, leaving no room for small entrepreneurs. Small and micro-entrepreneurs cannot compete sustainably against the deep pockets of these entities, who are more likely to produce a lower quality, unsustainable product and have already been shown to act unscrupulously to force out small businesses.⁵⁰ That's why the Draft correctly recognizes the need for protections against such conduct.

There must be limits on both the number of licenses owned and on vertical integration in order to resist consolidation and to prevent unfair competition and a "race-to-the-bottom" effect among state regulatory regimes. There must also be substantial tax, licensing, and operational incentives in favor of sustainable agricultural methods and small businesses.

Restricting concentration by large-scale operations and encouraging micro and craft licenses helps profits from cannabis stay in the local economies and helps to create a level playing field for equity applicants. By now we have witnessed the harrowing consequences of large-scale operations to local economies and the environment alike. Industrial agriculture has depleted our soil, created a slave-wage work force, damaged our waterways, and left our country reliant on trade to feed our people. The U.S. has seen the number of independently owned farms decrease while square footage of farming land has remained relatively constant. This scenario of more and more farmland owned by fewer and fewer farmers has created food deserts, financial hardship, and dependence on trade deals to sustain our farmers and our citizens.

This failed model cannot be imported to an entirely new agricultural sector. In five years, the square footage of a mid-sized cannabis operation has doubled. In 2016, an 18,000 square foot operation was considered an average mid-sized production whereas the average size of those production areas is 33,000 square feet in 2021.⁵¹ This is not in our national interest and discourages small businesses and innovation.

Small businesses distribute their economic impacts to people and businesses closer to home, regenerating communities. With industrial-scale operations, benefits often “leak” outside of where production occurs, with profits commonly redirected elsewhere.⁵² Locally-owned small and very small businesses create local wealth, keeping money circulating in communities. Money spent at small local businesses generates almost four times as much economic benefit for the surrounding region as shopping at a big box store due to this “multiplier effect.”⁵³

Our economy is undergoing a massive shift, accelerated by the pandemic. New small businesses are a significant driver of job creation, especially at start-up.⁵⁴ Businesses with few or no employees are growing, with roughly one third owned by minorities and four in ten women-owned.⁵⁵ The trend of “solopreneurs” is especially evident in this Covid-19 aftermath.⁵⁶ These small and micro entrepreneurs should be supported, not left behind.

The fact is that a concentrated industry reduces tax revenues and hurts consumers. Eliminating small players spreads harm throughout the ecosystem and negatively impacts tax revenues, as has happened in California and other jurisdictions.⁵⁷ The cannabis industry is already seeing anticompetitive tactics typical of unchecked market dominance, including below-cost pricing tactics to undercut competitors, only to raise prices once the competition is gone.⁵⁸ In some states, large cannabusinesses have employed tactics to squeeze, manipulate, and control smaller businesses.⁵⁹ Other large operator practices include corporate structures that allow stacking up small licenses⁶⁰ and taking over management control of smaller businesses.⁶¹

The only way to create a robustly competitive industry and spread the wealth is to limit business size/scope and license number for large operators and to create avenues for small farmers, cottage and microbusinesses to get established and grow.⁶² Americans want and deserve an industry that they can participate in and benefit from, not another big business boon that leaves most people behind.

Problems of scale and market dominance are not unique to agriculture. Like many states across America, New York has felt the devastating effects of big box stores that come into a town and create an entire community reliant on its production and the

carnage left behind when the company pulls up its roots and moves its operations elsewhere. Many communities never fully recover from this deterioration, leaving government programs as the only means to help struggling families. In addition, while small mom and pop owned stores often create better products that are sourced locally and the profits from those products directly flow into local economies, large-scale or big box stores tend to make inferior products and export the profits out of state to where the headquarters are located. Multiple smaller owned stores tend to hire more employees overall and the multiplier effect to ancillary businesses, such as advertising, security, and payroll are all increased under a multiple small-scale model versus concentration.⁶³

Cannabis policy should also be designed to strengthen rural-urban supply chains and invigorate the agricultural sector.⁶⁴ Cannabis presents an opportunity for revitalization and development, with rural and urban communities synergistically supporting each other.⁶⁵ We need to foster the same provisions for small craft cannabis cultivators as exist for farm craft breweries, including self-distribution, direct sales and on-site consumption.⁶⁶ A locally-focused, resilient, regenerative supply chain can connect small farmers with retail shops, craft lounges, and other niche businesses, to meet consumer demands. These new supply chains, with proper traceability and quality-control, will be built from scratch and should be designed so that as much cannabis as possible comes from small farmers growing healthy cannabis outdoors, regeneratively.

Notably, in addition to the environmental benefits noted above, small-scale regenerative agriculture improves the lives of the workers who tend to the farm and the communities where the farms are located. Craft-outdoor cannabis is born out of the soil and it is grown in and the climate that nurtures it. Like wineries and breweries, cannabis

farms have vast potential to produce strong local economic growth and prosperous communities. Notably, California is beginning to embrace this approach, creating a system of “appellations,” similar to what exists in the beverage alcohol industry and that supports local economies and economic resiliency.⁶⁷ This approach offers numerous benefits to individuals and communities, creating economic abundance.⁶⁸

V. SOCIAL EQUITY MUST BE FOSTERED BY CONTINUED COMMITMENT TO ECONOMIC INCLUSIVITY

The sponsors of the CAO deserve substantial credit for acknowledging that the war on drugs has been a war on people. For almost 100 years, cannabis has been used to create and perpetuate discrimination against people of color.⁶⁹ Recognizing the stain of discrimination and marginalization is a necessary but not sufficient step to ensuring that social justice in cannabis becomes a reality. Starting with those most harmed by the discriminatory enforcement of cannabis prohibition, this new cannabis industry should be structured from the start to create widespread opportunity, especially for those disproportionately impacted by the war on drugs. A new federal cannabis law should not assume large cannabusinesses run by the select few will dominate.⁷⁰

Today, even in post-prohibition America, people of color are effectively excluded from what’s been called *America’s Whites-Only Weed Boom*.⁷¹ In states that have adopted legal cannabis systems, structural barriers and the systemic aftershocks of discrimination and exclusion continue to limit access to opportunities and true economic security for minorities and women.⁷² High entry barriers like the need for exorbitant capital and unattainable bonds must be lowered. In states where barriers are low, business participation is high.⁷³ Unlimited licenses should be available for equity applicants, encouraging participation throughout the industry, including small farms, cottage and

micro businesses, with lower capital needs. We must learn from the past mistakes, not repeat them.⁷⁴

Simply authorizing funds to go to states and crossing fingers that justice will be done is not viable. There must be a specific and continued commitment to ensuring that economic inclusivity is the foundation of the new cannabis economy and at the front of the line should be those that were most harmed by the war on drugs and otherwise squeezed out from economic prosperity. People of color, women, indigenous peoples, the disabled and so many others have been left behind as the emerging cannabis industry becomes an arena where white men get rich.

The cannabis industry offers the chance to change the equation for people of color, women and those who have historically been denied a share of society's wealth.⁷⁵ Women are especially effective in leveraging their cottage and micro businesses to make massive contributions to economies.⁷⁶

Small, cottage and "micro-preneurs" can achieve that which has eluded us to date by spreading the wealth among those who have been historically discriminated against or squeezed out.⁷⁷ Business ownership catalyzes social mobility.⁷⁸ By structuring the industry for independent, small and micro businesses and limiting market concentration by large operators, new generations of entrepreneurs will create competition, expand consumer choices and generate superior products. Economic localization, not centralization, supports long-term, intergenerational relationships and deep community ties.⁷⁹ A 2015 Brookings report emphasized, "If our country is to continue to foster economic opportunity, create jobs, and make progress on income and wealth inequality,

we ought to help women and individuals from racial and ethnic minority groups start businesses and succeed as entrepreneurs.”⁸⁰

If governments intend to reap the tax benefits of a legalized cannabis industry, then they have a responsibility to help individuals (not just large well-capitalized corporations) to enter the market and be able to compete when the prohibition laws come down. Restorative justice includes access to capital for historically-disadvantaged entrepreneurs. Programs that assist those who have historically been denied access to the capital necessary to start and run businesses are needed to assist people of color and women, including to access land to farm. Just as New York specifically included those who have been historically underrepresented in farming as “equity applicants,” so too should federal policy recognize that change must start from the literal ground up. Farmland in the U.S. constitutes nearly half of the land of this country and 98% of it is owned by white males.

More people and businesses will share the wealth through licenses that are limited in size and scope, inclusion of farm cooperatives at the community and/or regional level, support for farm-based businesses analogous to farm breweries, and licensing geared to micro and cottage businesses. Supportive development initiatives will help in the start-up and early stages.

Accelerator and incubator programs must be part of the initial rollout of federally legal cannabis, which not only provide financial resources, and assist the most underrepresented applicants, but also allow people to build connections throughout the industry, find mentors and begin to get a leg up the prosperity ladder. Also needed are venture capital programs focused on co-investments by private sector investors to fund

loan participation and guarantee programs and programs to enhance business expertise and strengthen peer networks.⁸¹

These programs, which should include incentives for established businesses to share as growth partners to create a win-win, can support cannabis businesses from seed to sale, including through distribution to retailers and supporting brand portfolios and diversity. Here the role of the federal government can be significant and influential. The federal government should actively assist the states in creating grants for research to advance outdoor cultivation methods that improve climate resiliency and have economic efficacy. These should include establishing private-public funding avenues that provide research and development funds for not-for-profits to collaborate with state universities on cannabis research, as well as provide funds to train social equity applicants on regenerative cultivation so that they are enabled to establish small-scale farms and create economic prosperity.

Small business assistance should include administrative, compliance and technical training assistance as well as low interest loans and grants to economically disadvantaged and first-time business owners within the cannabis industry, with particular emphasis on loans for social equity applicants to farm cannabis using regenerative and organic -type practices on agricultural land. In addition, as part of redress, those same communities should receive grants and loans to regenerate the communities and assist with startups in roles that are related to the cannabis industry but do not necessarily touch the plant, including ancillary and complementary industries.

The Draft seeks input on the appropriate balance to strike between reducing barriers to entry, while preventing illegal operations that may engage in cannabis

diversion, tax evasion, or threaten public health and safety. NYSF supports programs that reduce barriers to entry and offer assistance in the form of incubators, accelerators, technical and business training, and programs to help bring legacy unlicensed operators into the legal marketplace. Government programs should aid and incentivize versus function in an overly bureaucratic or punitive manner.

Finally, cannabis co-ops should be recognized as a mainstay model of businesses so that communities can cooperate together to create economic sustainability. Small farm cooperatives allow artisanal and community growers to pool resources and will support processing, testing, distribution and serve as centers for crop research, seed banks, and farmer/consumer education. The superior cannabis from small farms should be the foundation for this new industry.

CONCLUSION

The end of cannabis prohibition at the federal level holds immense promise. The Covid-19 pandemic and its economic fallout, the urgent environmental challenges upon us, and the failure of our society to address discrimination and inequality demand a new approach. The CAO Draft is an important first step. NYSF supports moving forward with the federal legalization of cannabis and urges that it be done with respect for all people and planet in the ways described herein.

Respectfully submitted,

A handwritten signature in blue ink, appearing to be 'D. Burns', with a long horizontal flourish extending to the right.

Donna N. Burns
Nicole M. Ricci
Brian Farmer
NY Small Farma Ltd.

September 1, 2021

ENDNOTES

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⁷¹ *How Black people are Being Shut Out of America's Weed Boom: America's Whites-Only Weed Boom*, <https://www.buzzfeednews.com/article/amandachicagolewis/americas-white-only-weed-boom>; In a large study, Black entrepreneurs made up roughly 4.3 percent of cannabis business owners while white people accounted for 81 percent. *The Legal Cannabis Industry Must Reckon with Systemic Racism*, <https://mashable.com/article/cannabis-weed-systemic-racism-black-lives-matter/>; Chart: Percentage of cannabis business owners and founders by race, <https://mjbizdaily.com/chart-19-cannabis-businesses-owned-founded-racial-minorities/>

⁷² Marijuana Business Daily, *Women and Minorities in the Marijuana Industry 2018*, https://mjbizdaily.com/wp-content/uploads/2019/07/women-and-minorities_FINAL.pdf.

⁷³ For example, in Oklahoma's medical cannabis industry, as of December 2020, there were 9,545 active business licenses - 5,970 grower licenses, 1,407 processor licenses, 2,113 dispensary licenses, 24 transportation licenses, 10 waste disposal licenses, and 21 laboratories. These licenses cost only \$2,500 whereas in New York the cost was \$200,000 and a non-refundable application cost of \$10,000 plus required build-out costs in the millions. See <https://oklahoma.gov/omma.html>.

⁷⁴ *The legal cannabis industry must reckon with systemic racism*, <https://mashable.com/article/cannabis-weed-systemic-racism-black-lives-matter/> 7/8/2020

⁷⁵ Nine Charts about Wealth Inequality in America, <https://apps.urban.org/features/wealth-inequality-charts/>

⁷⁶ *Small is Big*, <https://www.internationalwomensday.com/Missions/14498/Small-is-big-Women-are-thriving-on-their-own-terms>

⁷⁷ *African Americans Face Systematic Obstacles to Getting Good Jobs* <https://www.americanprogress.org/issues/economy/reports/2019/12/05/478150/african-americans-face-systematic-obstacles-getting-good-jobs/>.

⁷⁸ Michael Barr, The Hamilton Project, *Minority and Women Entrepreneurs: Building Capital, Networks, and Skills*, https://www.brookings.edu/wpcontent/uploads/2016/07/minority_women_entrepreneurs_building_skills_barr.pdf at 8.

⁷⁹ https://www.kosmosjournal.org/kj_article/what-indigenous-wisdom-can-teach-us-about-economics/

⁸⁰ *Id.*

⁸¹ *Using Marijuana Revenue to Create Jobs*, <https://www.americanprogress.org/issues/criminal-justice/reports/2019/05/20/470031/using-marijuana-revenue-create-jobs/>; *The legal cannabis industry must reckon with systemic racism*, <https://mashable.com/article/cannabis-weed-systemic-racism-black-lives-matter/>