Air Quality

- A. **Intent:** Noble Gardens CEO and GM will take every measure to ensure that the business does not deteriorate the County's air quality, as determined by the LCAQMD.
- B. Noble Gardens is an organic cannabis farm with a genuine commitment to sustainable practices and minimizing environmental impact. The following descriptions illustrate how cannabis farming could produce airborne contaminants, and how Noble Gardens manages those potentials:
 - A. Noble Gardens does not spray pesticides or fertilizers during windy conditions. We do not utilize any toxic pesticides or petroleum-based fertilizers.
 - B. We will use carbon filters on all indoor spaces where cannabis will be dried, trimmed, cured, processed and packaged.
 - C. During the final stages of outdoor cannabis cultivation, there is potential odor. Given that Noble Gardens is an outdoor grow project, a potential odor issue may arise. However, the operation is not within 1,000 feet from any business, residence, school, daycare center, or church.
 - A. A. Please refer to Sheets 2 and 3.
 - D. There are times when vehicles and other transportation will be necessary for commerce. If it comes to the GM's attention that any of the vehicles in this process are emitting exhaust that seems excessive and may be outside of the range deemed acceptable by state or county air quality control, we will take immediate measures to resolve or report the problem to the entity responsible for maintenance of that vehicle.
 - E. There is some use of gas-operated farm equipment, mowers, pumps, weed eaters, and wood chippers that will emit some CO2 gases. Over the course of the next two years, wherever and whenever possible, the company intends to upgrade all such equipment with electrical equipment charged by solar power.

A. Our neighbor and construction manager will employ his '75 Case 580 backhoe, which runs on diesel fuel for approximately 5 hours to do a rough grade clearing of CA lilacs which will clear the space for our proposed expansion of the cultivation area. These bushes are also an intense fire hazard, and our goal is try to manage their growth and keep this variety of brush away from developed areas as much as possible to reduce fire risk to our facilities.

- F. Noble Gardens aims to engage in a delivery retail business as part of the company's future expansion. We will use an electric vehicle, as opposed to a gas-operated vehicle for these deliveries.
- G. Dust is a possible source of contamination during construction and planned expansion of our cultivation site. If dust is problematic, the construction manager, a licensed contractor who is versed in local code for acceptable use of water for dust control, may choose to utilize the minimal amount of water spray to control dust. However, at this time Noble Gardens does have any work plans, or grading required for any future plans, that would result in heavy dust pollution resulting from soil disturbance. There are shrubs that need to be removed, which are a fire hazard, removal of shrubs which are fire hazard do not require a grading permit however, thus negating the need for a grading permit. However, Noble Gardens will seek the guidance of the Lake County planning department and obtain any necessary permits for any and all work prior to commencing.
 - A. Noble Gardens will avoid any work that creates dust when it is windy.
- H. Noble Gardens' cultivation manager has created a proprietary blend for soil and does not purchase soil or have soil brought onto the property from a supplier. Part of Noble Gardens' soil composition is "biochar," which is achieved by harvesting wood from the surrounding trees during pruning for fire safety and burning it to the point of charcoal, but not to the point of dust ash. This minimizes smoke and overall burning times.
 - A. Noble Gardens' officers are aware that a burn permit from the county is required, and we comply with all codes and regulations for agricultural burns on the premises. Smoke is controlled by keeping the fire burning efficiently, and we burn only in areas on the property that are farther than

- 1,000 feet from any residence or easement road.
- B. To manage organic waste and wood waste from fallen or dead trees, or from tree grooming and maintenance on the property, Noble Gardens also employs other lower carbon emissions methods. Depending on the overall size and girth of the wood waste/green material, chipping is sometimes optimal, and it is part of the compost blend with which we create soil for gardening cannabis and other plants. We bury logs of 3.5" or more in swales and cover them with wood chips, green organic waste, and composted soil, to prevent spread of wildfire and reduce the carbon footprint of organic waste. Some of the wood may be chopped and utilized to heat the residence of the CEO on the adjacent parcel in the colder winter months.
- C. Prior to beginning any construction projects that alter the land or develop further structures, Noble Gardens' CEO or GM will seek the proper permits for that activity from the Lake County .
- D. Noble Gardens' will also seek any permits required by the county to operate any machine, equipment, or other contrivance that causes or may cause any issuance of an air contaminant.
- E. Noble Gardens officers will maintain any necessary permits to construct or operate throughout the entire construction process, until the project is deemed completed by Lake County, or until the operation is closed and the equipment is removed.
- F. Noble Gardens has taken the following measures to ensure that odor complaints are dealt with promptly, any time of day or night, any day of the year:
 - A. Noble Gardens officers or a representative will be available 24 hours a day/ seven days per week, including holidays, to respond to odor complaints. In our absence, a local liaison will be named, and their contact information will be given to any neighboring residents. Additionally, their contact information and the contact information for the CEO and GM will be kept on the premises in an easily accessible location at the entrance on Ponderosa Trail, along with any other information necessary to respond promptly to the complaint.
 - A. This information will be shared with the sheriff, CalFire, and neighbors, in

the event an emergency arises that requires immediate attention.

- B. Noble Gardens officers are in close contact with all neighboring residents, and they have numerous ways to contact Noble Gardens officers (cell phone, social media channels, and email), in the event they need to reach us for any reason, including but not limited to odor complaints.
- C. In the unlikely event that Noble Gardens receives an odor complaint at a time when our officers are not present, staff will be trained in appropriate response and assessment of odor control systems to determine their cause of failure. They will promptly perform any necessary repairs or otherwise resolve the problem
- D. To mitigate potential odor issues, all buildings in which cannabis is dried, cured, trimmed, processed, packaged or stored will be equipped with carbon air filters to filter the air through ducts. Also, all cannabis shall be packaged properly in odorproof, tamper-evident, packages once it is dried, cured, trimmed, and weighed. Additionally, all staff handling cannabis material will be suited in appropriate clothing to prevent the odor of cannabis from depositing on the staff member's clothing or hair. Staff will remove these suits and head coverings in a mudroom environment that is closed off from the area where the plant is processed, to prevent odors from leaking out of the building through entryways, and also to ensure that cannabis products do not become contaminated with hair, dust, mold spores, or other microbiological elements that could affect the quality of the product.
- E. In the unlikely event that carbon filters are not adequate, Noble Gardens officers will move to install additional air filters on the building's filtration system to mitigate any odor. Prior to installation of any additional filtration systems, Noble Gardens officers will seek and obtain any necessary permits from the County Planning Division or other governing bodies.

Storm Water Management

- A. It is Noble Garden's intent to protect water quality of surface water and the storm water management systems managed by Lake County and to evaluate the impact of storm water from our project to downstream property owners.
- B. Noble garden's cultivation site is largely on a flat surface with very little run off potential. Our facilities are several miles away from any body of water, and 100 feet from the well on the property, which is uphill from the entire site, existing and proposed. Other wells, are 1000 or more feet away, with the nearest wells on adjacent properties being 50- 150 feet higher in elevation from Noble Gardens campus.
 - A. The existing cultivation area has no buildings which create storm water run off or drainage.
 - A. Furthermore our site is planned such that our cultivation occurs on the contour of the landscape and we use swale and trench planting techniques which captures and utilizes storm water as it flows. This technique prevents run off and erosion, throughout the entire year, during growing season and in the off season.
 - B. In the off season Noble Gardens cultivation standard procedure is to plant a cover crop to further prevent run off and erosion.
 - B. Noble Garden's aims to also protect the aquifer from which water for the cultivation activities is drawn.
 - A. Noble gardens plans for the proposed expansion includes a designing and installing rain water diversion systems that will capture rain water from all greenhouses and other buildings erected, which will be used for irrigation and other non-potable uses.
 - B. In order to store rain water effectively to to minimize complicated diversion to a pond or other water feature, each building will have water catching containers that their gutter system feeds into. A water trailer will be uses to collect water and carry it to a larger tank in the cultivation area.
 - C. Water captured in the cultivation area will not need to be moved, and can be measured, and applied directly to plants.

Building	Area (Sq ft)	amount captured gal/based on average of 28" of rain annually.
Processing building	2688 sq ft	47040
9 greenhouses	18144 sq ft	317520
Dwelling	1568 sq ft.	27440
Garage	576 sq ft	10080
Employee break room/office	plans not yet drafted 1000 square ft meets needs for company's anticipated employee figures	17500
Total	23976 sq ft	419580 gallons per year

The above chart illustrates the intense potential for rain water catchment, storm water will be properly managed to prevent any potential issues which would result in Noble Gardens proposed building/greenhouse installations. Storing water in this quantity would take less than an olympic sized swimming pool.

- C. Noble Gardens is permitted by the Central Valley Regional Water Control Board, and we follow their best practices for water use and management as part of our standard operating procedures.
 - A. The CVRWCB guidelines for best practices for water use and management are in the company's training manual for staff, and are kept at the cultivation site for reference.
 - B. Noble Gardens has received notification that we will need to transition to coverage under the Statewide General Order by July 1, 2019.
- D. Noble Garden's campus is not located near 100 feet of any spring, top of bank, creek or seasonal stream, edge of lake, or other vernal pool.
- E. Noble Gardens will prevent any and all illicit discharges of irrigation, or storm water from the premises as defined in Title 40, of the Code of Federal Regulations, section 122.26 which could result in the degradation of water quality of any water body as prohibited by this code.
- F. The permittee has prepared a storm water management plan for all proposed expansion plans based on the Central Valley Regional Water Control Board

- A. Based on the guidelines of the water control board noble gardens cultivation is regarded as a low risk site, having less than 1 acre of disturbed land for the permittee cultivation project on land that is >10% grade.
- B. The property experiences a drop in elevation over about .5 mi distance at ~20% grade.
- C. Noble Garden's entire proposed project is less than one acre in size.
- D. Noble Gardens does not divert water from any river, stream, lake, vernal pool, or other surface water body.
- G. Noble Gardens aims to be as green as possible in all aspects of business, including storm water management throughout all proposed plans.
 - A. All future structures will be fitted with guttering systems that will drain rain water into a system to capture rain water.
 - B. All water captured in the drying process or other processes in the cultivation (and later when we add manufacturing licensing to our business practices) will be filtered, treated, if needed, and tested for purity before it is used in any applications on the site.
 - C. Noble Gardens storm management plan involves capturing and reusing rainwater to reduce risk of storm water run off resulting in an increase of water flow to the adjacent parcel.
 - D. Noble Gardens cultivation project will not increase flood elevations downstream of the discharge point.
 - E. Noble Gardens cultivation site will not degrade water quality of any body of water.
 - F. Noble Gardens is in compliance with requirements of Chapter 29, Storm Water Management Ordinance of the Lake County Ordinance Code.
 - G. Grading on the parcel is extremely minimal, there will be a need to clear some brush which is a wild fire hazard and would need to be cleared regardless of any expansion by Noble Garden's proposed projects.
 - A. Soil disturbance will be limited to what is necessary to clear brush, however the landscape is virtually level, and it will not be necessary to move any considerable amount of soil for leveling to make building possible.

- B. No soil will be removed from the location and no additional soil will be brought in for the expansion of the cultivation site.
- C. Greenhouses will be built over trenched swales in sections, which will be dug along the contour of the landscape to maximize water/irrigation economy, and will prevent run off of any irrigation from inside the greenhouse structures.
- H. Noble Garden's best practices are dictated by the Ca water board guidelines and by the cultivation managers knowledge of permaculture gardening, and horticulture.
 - A. Methods involve using the landscape to determine where to best place plants so that water usage is minimized.
 - B. Noble Gardens employs swales on contour so that plants share a single trench instead of having individual plots that each have to be watered to optimize each plant. With swale gardening, if one plant does not need water or nutrients it is available to adjacent plants instead of just leaching into or running off onto the surrounding soil.
- I. Primary parameters that will be monitored will include but are not limited to;
 - A. Soil composition
 - B. Soil PH
 - C. Soil moisture levels
 - D. amount of rain water caught and reused in irrigation
 - E. water usage from private well will be on a meter
 - F. water from private well will also be on a timer to pump water into a larger holding tank for irrigation that will switch on for no longer than 30 minute intervals, no more than once every 2- 3 hours. Timer will prevent staff from accidentally leaving the well pumping.
 - A. this prevents stress on the aquifer, and prevents the aquifer from suffering underground collapse/erosion due to rapid loss of water pressure from excessive pumping. This method helps maintain maximum water pressure inside the aquifer helping maintain it's over all capacity, which prevents well failure.

B. Cultivation Manager and staff will also record levels of captured rain each season, and test it for PH, potential contaminants, and composition prior to using it for irrigation.

Property Management Plan

Waste Management

- A. It is Noble Gardens intent to minimize the generation of waste and dispose of such waste properly, prevent the release of hazardous waste into the environment, minimize the generation of cannabis vegetative waste and dispose of cannabis vegetative waste properly, and manage growing medium and dispose of growing medium properly.
 - A. Noble Garden's cultivation practices do not generate any hazardous waste that could be released into the environment at this time.
 - A. In November of 2018 Noble Gardens will begin expansion of operations to include a mixed light cultivation, which will involve use of CFL (for immature plants) and High Pressure Sodium (for flowering plants) bulbs. Please see Hazardous waste management later in this document for details.
 - B. Noble Gardens does not engage in purchasing of soil in our cultivation practices. Noble Garden cultivation manager believes it is not in the best interest of the environment to alter the soil composition by bringing in soil that is not native to the land.
- B. Waste Management Breakdown
 - A. Solid Waste Management
 - A. Noble Garden's knows that the average American office worker uses about 500 disposable cups every year. Along with countless other disposable forks, plastic utensils, packaging, water bottles and other waste just from food consumption while at the workplace.
 - A. Noble Garden's hopes to mitigate this issue in our business by providing a full kitchen, stocked with everything staff would need to prepare meals, and bring less waste into the workplace.
 - A. It is our goal to create a community environment at our facility, so that staff feels comfortable having groceries for their meal preparation in the employee break area. An automatic dishwasher, and other necessary items that make this model flow and work for everyone will also be provided.

- B. Generating a true estimate of the amount of solid waste that will be generated on an annual basis and daily during peak operational seasons, has proven to be challenging, however based on research performed by the GM, the potential numbers for waste proves to be staggering. Noble Gardens aims to be a sustainable company, on a mission to constantly improve systems and create less waste each year. Waste categories are broken down into the following categories:
 - A. Paper
 - A. Permittee does not have any employees at this time, outside of CEO and GM. Printed paperwork is kept to a minimum and is only generated when documents need to be signed and filed.
 - A. The average office worker in the U.S. uses 10,000 sheets of copy paper each year. That's four million tons of copy paper used annually. Office workers in the U.S. generate approximately two pounds of paper and paperboard products every day. Noble Gardens finds this totally unacceptable.
 - B. Noble Gardens office management policy will require manager approval for printing documents, and all paper products will be post recycled, from renewable resource materials.
 - C. The company will employ a digital storage system for documents that will further mitigate paper waste, and on site filing of documents by using web based software programs like "docusign" and other digital signature software which allows for signatures to be captured and stored so that paper can be minimized at our facility.
 - D. All paper waste will be properly separated recycled at the appropriate recycling facility.
 - B. Glass
 - A. Noble Gardens anticipates generating no more than the typical household amount of waste for glass, in the form of food and beverage packaging.
 - A. Any glass waste will be appropriately rinsed, separated and recycled. The energy saved by recycling one glass bottle can light a 100-watt light bulb for four hours or run a computer for 30

minutes. Noble Garden's officers are keenly aware of the crisis waste poses for our community, the environment and that planet at large.

- C. Metal
 - A. Noble Gardens anticipates generating approximately 1-3 cubic yards of metal waste per year, maximum, incidental waste only. None of Noble Gardens typical daily operations generates any metal waste. Any metal waste will be appropriately separated, safely stored and appropriately recycled.
 - B. The average American employee consumes 2.5 cans of soda each day at work, metal waste does not pose as much of a challenge to the environment as plastics, however, recycling receptacles will be prominently displayed and employees will be strongly encouraged to utilize the recycling system on the Noble Gardens campus so that metal waste brought in by staff can be recycled.
- D. Electronics
 - A. Noble Gardens does not anticipate generating more than 1 cubic yard of electronic waste. This would only occur in the even of a scale, camera, computer or other electronic equipment being broken beyond repair. This would be incidental waste, none of Noble Garden's typical daily operations generates any Electronic waste.
 - A. Any electronics waste will be appropriately separated, stored safely and taken to the appropriate electronic waste drop off facility in Lake County.
- E. Plastic
 - A. Plastic waste is one of the most insidious forms of waste that plagues our planet today. Plastics do not biodegrade, rather they decompose into smaller and smaller particles which pollute soil, and water and clean up is nearly impossible. These particles find their way into water ways, streams and the ocean and are consumed by marine life, the compounds in plastic climb up the food chain, and accumulate in mammals, including humans.
 - B. Because plastic water bottles are shielded from sunlight in landfills, they will not decompose for thousands of years. It takes about 1,100

to 2,000 times as much energy to produce and transport the average bottle of water to the North Bay Area and Lake County as to produce the same amount of tap water.

- A. Noble Garden's facility will have posted signage educating staff and visitors of these and other facts about plastic waste. Our campus policies will strongly discourage single use water bottles among visitors, and staff will be prohibited from bringing them to work at all.
 - A. Noble Gardens will provide reusable water bottles for staff to use during their workday and a dish washing machine in the break room for them to be cleaned at the end of each shift.
- C. The cannabis industry seems to rely heavily on plastics for product storage, labeling, UID tags for the track and trace system and even in the cultivation process. The irony in the amount of plastic waste generated by the cannabis industry is the fact that hemp can make petroleum based plastics a thing of the past.
 - A. Noble Gardens hopes to mitigate this waste problem by using materials, packaging and labeling made from newly available biodegradable plastics, which is a growing industry.
 - B. Nearly all fertilizers, pesticides, and foliar sprays are packaged in plastic.
 - A. This will generate about 1 cubic yard of waste per year in Noble Gardens operations, these bottles are all rinsed and recycled.
 - C. Some cultivation operations also use plastic pots for plants. Pots are generally reusable, though they do deteriorate over time.
 - A. Noble Garden's currently cultivates cannabis outdoors and does not cultivate in pots, our plants go directly in the soil.
 - B. Mother Plants are potted in earth pots, which are made from a biodegradable fiber material.

- D. Trellis is a necessary element in any cannabis cultivation endeavor. Some variety of trellis must be used to support the cannabis plant throughout stages of growth.
 - A. Noble Gardens anticipates using approximately 22,400 square feet of trellis for ~5000 square feet of canopy, in a cultivation area that is already established.
 - A. Cannabis plants are prone to breakage during the flowering stage and require strong supports. There are numerous ways to support the plant. And the branches grow through the trellis, making harvest difficult and tedious.
 - B. Noble Gardens has examined many ways of trellising plants. From wire fencing, which can rust and injure staff during harvest, to jute fiber twine, which deteriorates and can become moldy in damp conditions. Jute twine trellis is also something that is laborious to create; and
 - A. There are times when it is impossible to free the plant of the trellis material and it is necessary to cut the trellis to free the plant. It also happens at times that the jute trellis simply breaks, which results in lost product when plants are damaged.
 - C. Noble Gardens uses 100 % recyclable plastic trellis for plant supports. This material is strong, long lasting, and unless it is impossible to harvest around the trellis, it is left in place for the next harvest.
 - D. Our cultivation practice sees ~4,480 square feet of loss of trellis material annually, in the outdoor cultivation. This material is kept separate and safely stored to protect wild life from becoming trapped or tangled in the material and it is recycled at the local recycling facility.
 - B. Our operation site plan **proposes** 9 greenhouses to be added to our operation. Each of these greenhouses will house 1120 square feet of canopy.
 - A. When Noble Gardens cultivation is operating at full capacity this will add additional 20,160 square feet of trellis material

to our operation. Plants grown in a light deprivation greenhouse set up tend to be far less robust and are far easier to harvest. Our cultivation manager anticipates losing only approximately 500 - 1000 square feet of trellis per year due to accidental breakage, mostly. Plant entanglement is quite unlikely to occur in this type of growing situation.

- C. Trellis is attached to metal t-posts using plastic zip ties.
 - A. Noble Gardens existing operation for our outdoor grow uses approximately 914 zip ties. Proposed greenhouse operation will employ 864 zip ties for trellis.
 - A. These zip ties, are fairly sturdy, but do become brittle over time and require replacing. When they break in the cultivation area they are collected and deposited into the recycling bins located throughout the to be picked up by the weekly trash pick up service.
 - B. Noble Gardens will make all staff aware that our policy is that any trash, or recyclable item seen on the ground in or around the entire property is the responsibility of the person who sees it, to make certain it is picked up and does not threaten the environment or wildlife.
- E. **Proposed** Green Houses are another source of plastic use in our facility.
 - A. Noble Gardens will house mother plants which will not flower, and are used to take cuttings from to supply a nursery in a small building adjacent to the mother greenhouse. This will be a standard single frame greenhouse in a hoop house styling that will measure 120 square feet. These plants will be potted plants so that they can be moved to an indoor location in the cultivation site, when temperatures drop below a certain level.
 - B. Our operation is proposing to add 9 additional double frame light deprivation greenhouses in the cultivation area, over the course of a 3 year period of time. These Greenhouses will have an interior black out sheeting and a clear/translucent outer

cover. This canopy will also be planted directly into the existing soil.

- C. These greenhouses exterior hoop will be 24 feet by 84 feet. Resulting in plastic covers measuring 43' X 84.5' for the interior hoop house and 34' X 84.5. for the exterior hoop.
 - A. Hoop houses are capped on the ends with black plastic sheeting that is ~270 square feet. For a total of 9 greenhouses.
 - B. The exterior sheeting is 10 mil string reinforced and has an expected life span of 3-4 years
 - C. The interior sheeting is 8 mil, string reinforced and has an expected life span of 4-6 years.
 - D. To prevent plastic waste from littering the environment, Noble Garden's cultivation manager will inspect plastic sheeting on a biweekly basis, making any necessary repairs in the sheeting to extend the life span of the covers. When it is determined that a greenhouse is in need of a new cover, the existing cover will be removed, stored in a secure container and until it is hauled to the local recycling facility.
- F. Packaging and UID labels required by track and trace are another form of plastic use in our facility.
 - A. Track and Trace requires each plant to have a label that is visible and readable once plants are set to go to flower. We anticipate approximately 107 - 110 plants in our outdoor cultivation area on an annual basis, generating that many plastic labels.
 - B. We anticipate wet yields for this 5000 square foot outdoor grow to range from 215 535 lbs.
 - A. Some of this outdoor cannabis crop will be trimmed of water leaves and then dried, trimmed and weighed then finally packaged and labeled into 1 lb bags.

- B. A good portion of the outdoor crop will be frozen, in preparation for dry sieving, and will be immediately weighed, labeled and packaged into 1 lb bags.
 - A. Because 1 lb bags each require a separate set of track and trace labels, the number of pounds yielded from this crop will determine how much plastic recycling is generated from this crop.
- C. For the proposed greenhouse additions, Noble Gardens anticipates that each greenhouse would house 106 plants per greenhouse, requiring a track and trace label for each plant. Totaling ~960 UID tags for all 9 greenhouses.
 - A. Each greenhouse harvest could yield 53 106 lbs per cycle, requiring a bag and an additional UID label for each pound of harvested, dried, trimmed material.
 - A. Annual totals with each greenhouse producing 3 crops per year would range from 1,431 - 2,862 lbs of cannabis, each dried, trimmed lb requiring a plastic bag and UID track and trace label.
- G. Additional plastic waste will come in the form of basic household waste from staff break/meal times, visitor bringing water bottles, etc.
 - A. This type of plastic will be stored in the weekly pick up receptacle and taken to the local recycling facility with our trash service.
- F. Organics
 - A. This year Noble Gardens generated about 300-400 lbs of organic waste in the form of a nitrogen fixing cover crop.
 - A. We found this to be undesirable, in spite of the fact that it is composted. And in the years to come we plan to use a less bountiful clover cover crop which will also nitrogen fix the soil. This will reduce the organic material we recover from the cultivation area for the cover crop by 50% or more.
- G. Inerts

- A. Noble Gardens does not anticipate generating any inert waste.
- H. Household Hazardous Waste
 - A. Noble Gardens anticipates generating under 2 cubic yards of hazardous household waste annually. In the form of batteries, ink cartridges, and other universal hazardous waste normally generated in any small business or household.
 - B. Bulbs used for lighting and for cultivation are discussed later in this document.
- I. Special Waste; and
- J. Mixed Residue are addressed later in the hazardous waste section.
- C. Permittee will minimize solid waste generation, by recycling and reusing and repairing materials and items rather than sending them to landfill. Noble Gardens is not able to work with vendors for cannabis as we do not possess a distribution license. However, as cultivators we will work to recover boxes and other materials that distributers will end up recycling so that they can be reused for additional pick ups of cannabis for retail sale.
 - A. Our company will also work with other non-cannabis related vendors to minimize packaging, by selecting to work with green companies, or by asking that packaging be minimal for shipments and reduced to only what is necessary to ensure the safe arrival of items we order for our business.
- D. Items 3, 4, 5 Including Collection/frequency/method; and Storage, Composting, Recycling, Final Destination Location;
 - A. Permittee will have weekly curb side pick-up for basic household trash and staff generated waste from break/mealtimes. Local trash pick up for this area has a final destination in Clearlake, CA at the Eastlake Landfill.
 - B. All food or green/organic waste will be composted on site.
 - A. All cannabis waste will also be composted in a separate area under security surveillance, until it is completely unrecognizable at which point it is combined with other fully composted organic waste, and reutilized for other projects on the parcel, or in cannabis cultivation.

- C. All recyclable household containers, paper, boxes, etc will be included in basic weekly pick-up service; and
- D. Bulky recycling waste will be collected on site in a secure container and hauled by Noble Gardens CEO or GM to the local recycling facility on a monthly or every other month basis as needed to prevent accumulation of material on site.
 - A. Final destination for recyclable materials is South Lake Refuse & Recycling in Clearlake, CA.
- E. Household hazardous waste and electronic waste in the form of broken machines, equipment, batteries, lithium batteries, paint, ink cartridges, computer monitors, CFL, High Pressure Sodium, and LED bulbs will all be stored in labeled containers, with special care taken to prevent breakage of CFL, High Pressure Sodium, and LED bulbs while in storage through the use of boxes available through various vendors online.
 - A. Staff is given special training on proper clean up and ventilation in the event of breakage of a CFL, High Pressure Sodium, or LED bulb, and signs are also posted in the facility reminding staff of contamination of powdered mercury requiring immediate ventilation and containment of the glass particles with special care to ventilate the area.
 - A. A special clean up and containment kit will be maintained on the site for broken Bulbs.
 - B. Staff will be trained in disposal of batteries and other waste that poses a fire hazard while in storage at the facility.
 - C. Final destination for hazardous household waste is determined by the rotating location schedule for Lake County Integrated Waste Management drop-offs program.
- F. Noble Gardens facility does not produce any Inert waste, since there is no demolition on the site.
- G. Noble Garden's facility does not generate any special waste in the form common **special wastes** include petroleum-contaminated soil, asbestos, stabilized grit & bar screenings, absorbent booms, and pads, liquids, pit sludge, bag house dusts , dried paint filters, biosolids, grease/

scum **waste**, or any other hard-to-handle material that is not considered hazardous under RCRA.

- H. Noble Gardens does not generate any mixed residue waste in the form of mixed trash. Noble Garden's endeavors to be as waste free as possible. All staff will be trained and provided spaces that will allow for easy separating of trash from recyclable materials. Permittee understands that Trash, or "residue," contaminates recyclable materials, turning the whole bin into trash. Not only can co-mingling of trash and recyclables ruin a batch, but it can also contaminate other materials if it is dumped into the truck meant only for recyclables. If it's not removed before it goes to the processing plant, the trash can damage machinery used to separate recyclables.
- I. Lake County Waste Management has taken steps to make it easy for local residents and businesses to recycle, by giving customers either one container where they can place all of their recyclable items or separate bins for different types of recyclables at it's recycling facility. Noble Gardens takes considerable care that we keep trash and recyclables separate so that the recyclables don't become dirtied by trash - giving the recycling facility the opportunity to reuse these items in making other products.
- B. Hazardous Waste Management; hazardous waste management shall include:
 - A. Hazard Analysis:
 - A. The applicant has conducted an analysis to identify or evaluate known or reasonably foreseeable hazards for each type of cannabis product produced at our facility in order to determine whether any hazards exist which require preventative action or special training for staff. Noble Garden's CEO and GM evaluated the following potential hazards, including:
 - A. Biological hazards including microbiological hazards;
 - A. cannabis flowers, and extracts, have potential to be contaminated with microbiological hazards, in the form of molds which can form at various stages in the plants growth, and during the drying, and curing process or due to improper storage of finished products. These microbiological hazards pose a threat to the public when they are smoked or consumed. Noble Gardens mitigates this risk

by testing all cannabis flowers, and extracts at a licensed testing facility. And, by taking measures to ensure products are handled properly after processing and that products are properly stored until they are distributed for retail sale to the public.

- B. Other biological hazards can be present in cannabis as in any other agricultural product in the form of bacteria, usually through contaminated water sources, or poor sanitation of staff or facilities, or poor handling of fertilizers. Noble Garden's mitigates this problem by having all finished products tested at state licensed facilities and by taking measures to keep facilities clean, implementing policy for employees to follow to prevent contamination of product through hand washing and careful handling of cannabis, protective clothing, and keeping facilities clean.
- B. Cannabis products can be contaminated by chemicals in pesticides used in some gardening applications which are not safe for consumption. Noble Garden's is aware of these chemicals and the risks they pose and prohibits the use of these chemicals in our cultivation processes;
 - A. Further mitigating the risk of chemical contamination Noble Garden's observes all testing requirements by the BCC for purity and contaminants prior to packaging for distribution to the public for retail sale.
- C. Cannabis is at risk of physical contamination in the form of stones, glass, metal fragments, hair or insects if facilities are unsanitary or when staff handling cannabis plants are not wearing protective clothing and hair nets to prevent depositing hair onto the plant during harvest, drying, trimming, weighing, packaging, or during manufacturing processes.
 - A. Noble Garden's requires staff to wear protective clothing to prevent contamination of cannabis by hair, human or animal.
 - B. Noble Garden's maintains clean facilities in the field, green houses and processing areas. Cannabis is harvested carefully without coming to into contact with the ground where it would pick up dirt, gravel or rocks prior to drying.

A. After cannabis flowers are dried careful attention is paid to the presentation of each flower during the trimming process also minimizing risk of a contaminated flower being packaged for distribution for retail sale to the public.

Noble Gardens has evaluated the hazards identified in order to assess the severity of any illness or injury that may occur as a result of a given hazard, and the probability that that hazard would occur in the absence of preventative controls. And while the likelihood of death or severe injury is unlikely, Noble Gardens strives to provide a safe work environment to it's staff, and visitors and to provide a safe and clean finished product to the public.

- A. Noble Garden's does not engage in any manufacturing currently, as the company is only a licensed cultivation facility. However, as part of our proposed expansion the company will seek a manufacturing license.
 - A. Noble Gardens does engage in cultivation, which includes growing, harvesting, drying, trimming, curing, packaging, dry sieving and weighing of cannabis products.
 - A. Noble Gardens training program teaching staff how to evaluate their workspace for dangers that could cause harm due to negligence, broken materials, pests, chemicals, food borne filth, and unkept conditions.
 - A. Staff is responsible to stop their regular duties and address any hazard that could result in injury right away by;
 - A. correcting the problem, if correcting the problem will not put themselves at any risk for personal injury.
 - B. If they fear personal injury, or do not feel competent to correct a problem they see, they should immediately notify a manager to come to their assistance.
 - C. Management will have special training for their department to cope with challenges that might come up in their particular area or department.
 - B. Noble Garden's will eventually seek a type 6 manufacturing license, which is non-volatile manufacturing process involving only ice, water and basic cooking oil as a solvent agent for extractions. These processes pose little to no risk of chemical contamination to the public, or safety to staff, during extraction processes, or in the end result product. These

processes also do not generate any hazardous waste or use any hazardous chemicals.

- C. It is also required by BCC regulations that any manufactured cannabis products obtained through extraction processes, be further tested for microbiological and/or chemical contamination prior to packaging for distribution for retail sale to the public.
- B. Noble Gardens does not manufacture any cannabis products. We hire out our manufacturing at this time, and formulation of cannabis extractions, food and candy and other products with the Noble Gardens name are formulated by licensed manufacturing facilities elsewhere in the region.
 - A. It is the practice of Noble Garden's to obtain and keep on file a copy of the license of any company which they hire to perform a manufacturing, extraction, or testing of cannabis products.
 - B. Noble Gardens also includes a clause in their contracts with other partnering or hired companies that requires the management/operations manager/owner of the company to agree to keep their business in compliance with cleanliness and health and safety codes as set forth in the licensing agency under which they are licensed.
 - C. This contract also holds the partnering company liable for any damages incurred suffered by the customer should there be any contamination, errors in formulation, or malfunctions in vape pens, or other errors in the finished product Noble Gardens contracted the company to manufacture.
- C. Noble Gardens designs the functions of it's facilities around ease of use, safety to staff and to the environment. We keep our operation simple and we use manual controls and monitoring to keep a hands on approach to what is happening in our facility.
- D. Noble Gardens only produces cannabis flowers and dry sieved keif extract currently. There are no additives or ingredients in these products.
- E. Noble Gardens transfer protocol is to follow the track and trace system requirements for labeling products and creating a product manifest for products to be transported to a distributor for retail sale.
 - A. All transfers will take place in clear view of surveillance cameras, packages will be prepared and packaged and properly labeled in clear view of surveillance cameras.

- B. All transfers will be handled by the CEO or GM, to a predetermined licensed distributor who will illustrate that they are utilizing proper transportation requirements to log time of departure and time of arrival, and lay over times during transport, products will be placed in a secure location lock box in the distributors vehicle in clear view of surveillance cameras.
 - A. Noble Gardens will pay the distributor the necessary cultivation tax based on weight and item description at the time requested by the distributor, whether that by upon pick up of the products or invoiced for payment at a later date.
- C. Once packages have been picked up, our inventory system for the sale will be updated and an invoice will be generated and given to the buyer electronically, along with a manifest telling the weight and description of the products in the expected delivery.
- D. Once the invoice is paid, the item will be marked paid and the sale will be complete and fully reconciled.
- F. Noble Gardens does not engage in Manufacturing and processing at this time.
 - A. Noble Gardens proposes to have one processing facility which will occur in a 3000 square foot building. The building will have separate climate controlled environments for the following processes;
 - A. Drying (1800 square feet), in a locked limited access room, which will be under camera surveillance.
 - B. Trimming and processing/sieving (300 square feet), locked limited access room, which will be under camera surveillance.
 - A. Cannabis will also be weighed and packaged as it is trimmed and leave this room in a packaged properly labeled state with a unique UID sticker identifying which lot, plant and harvest the material came from.
 - B. This room will also function as a space for dry sieving where cannabis is shaken on fine screens to remove trichomes as an extraction method. The finished product is classified by the state of CA as an unmanufactured cannabis product.

- A. The resulting product will be weighed, packaged into 0.5 and 1 gram containers for retail sale and the remaining cannabis will be weighed and repackaged into the original package, issued new labels with the new weights, and placed back into freezer storage to wait for transport by a distributor to a manufacturer for further extraction processing.
- C. Storage and freezer room, 500 square feet, this room will be strict limited access, under camera surveillance. Only the CEO and GM will have access to this space.
 - A. This room will store finished cannabis products which have been fully dried, trimmed and processed, and;
 - B. Cannabis which requires dry storage or deep freezer storage while it awaits further processing in the form of dry sieving, and;
 - C. Trim material and frozen sieved cannabis awaiting transport to manufacturers for further processing, and;
 - D. finished cannabis extractions we receive from licensed manufacturers after our material has been processed and the finished product returned to the facility to await distribution to a retailer.
- D. please refer to the description of item B and C in this section.
- E. please refer to the description of item B and C in this section.
- F. Noble Gardens products are intended for use by adults who qualify to purchase medical cannabis in the state of CA under the recommendation of a licensed physician to treat a medical condition for which they are under the care of a medical professional.
 - A. Products will be labeled in accordance with CA cannabis regulations, including but not limited to;
 - A. including the dosage or potency, testing results, doses per package, heavy machinery and driving warnings, Prop 65 warnings, keep out of reach of children and pets, and for medical use only.
- G. Other relevant factors might be that Noble Gardens aims to expand operations to include distribution, delivery retail, manufacturing and to

continue with cultivation so that we may be able to safely produce cannabis products to Lake and neighboring counties to the safety and comfort of their own home, minimizing stigma, need for dispensaries, and the risk of users driving while under the influence of cannabis products. At such time these permits are available through the Lake County Planning Department, Noble Gardens will pursue them, until such time the company will continue to engage only in permitted activities.

- B. Management Plan
 - A. Noble Gardens CEO and GM have identified all Resource Conservation and Recovery Act (RCRA) non-RCRA hazardous waste and Universal wastes and the volumes of each;
 - A. Primary source of universal waste that will be generated by Noble Gardens operation are CFL, High Pressure Sodium, and LED light bulbs. These bulbs are not currently employed and are part of the proposed growth, which will not occur until approval of this permitting process.
 - A. Both of these types of lighting have been identified as containing heavy metals in the form of mercury vapor and lead respectively. For that reason these bulbs require care when handled and stored, and if broken the area requires special clean up and immediate ventilation efforts need to be made. Any cannabis that may be exposed to a broken bulb should be regarded as contaminated and quarantined from other cannabis in the facility. This cannabis would be reported to the state of CA as being waste and would be destroyed in accordance with regulation codes.

CALIFORNIA CODE OF REGULATIONS TITLE 3. FOOD AND AGRICULTURE DIVISION 8. CANNABIS CULTIVATION CHAPTER 1. CANNABIS CULTIVATION PROGRAM, sections; 8106, 8108, 8308, 8400

Title 14 of the California Code of Regulations, division 7, chapter 3.1 (commencing with section 17850)

- B. CFL, High Pressure Sodium, and LED bulbs will be stored in separate covered containers clearly labeled and separate from other types of waste and recycling.
 - A. Storage location for these materials is proposed to be in a shed outside of the fence of the cultivation site.

- B. Special protective cardboard boxes are available through several retailers and hardwares stores to protect CFL, High Pressure Sodium, and LED bulbs while they are in storage awaiting transport to the local hazardous waste drop off location.
- C. No hazardous waste manifest is required for these materials as they are regarded universal hazardous waste. However, greenhouse record keeping will include a chart with numbered light fixtures and records for when bulbs are installed, and by whom, will be noted. When bulbs are changed and placed into the waste receptacle, this would be noted in the chart for the respective greenhouse and light fixture.
- D. Regular inspection of lighting will occur daily by the cultivation manager to ensure light fixtures are securely in place and that there is minimal risk of malfunction or accidents which could result in breakage of light bulbs or lighting fixtures.
 - A. Inspection of the waste receptacle will also occur on a weekly basis to determine if it is necessary to schedule transport of this waste to the hazardous waste drop off location.
- E. In the event that a bulb does break; There will be a "Broken Bulb Containment Kit" in a utility cabinet in the cultivation area. This kit will include: reminder instruction card taped to the lid, do's and don'ts; an airtight container where broken pieces can be placed and stored, gloves and a vapor mask for the staff member to wear, and two disposable heavy paper "dustpans" to scoop up larger pieces of the bulb and any soil in the area under where the bulb was broken. These "dustpans" will also be placed into the airtight container for safe storage until it is taken to the hazardous waste drop off location.
 - A. Staff is to immediately open the space for fresh air, and turn off all fans; leave the room and have all staff leave the area for 15 minutes, place do not enter sign at entrance of greenhouse or space before addressing anything else;
 - B. Notify management of the incident if management is available on site to come and assist quickly; if not staff is responsible to take action to contain the broken material;

- A. Staff will be trained to avoid disturbing the dust at all costs and to never handle the broken glass material without gloves and a mask to prevent inhalation of dust, which will be available in a labeled water proof box or cabinet in the utility cabinet labeled "Broken Bulb Containment Kit" Once the staff member is protected;
- B. Contain the broken material by using two heavy paper
 "Dustpans" in the kit to pick up only the large pieces of glass and placing them into the plastic air tight receptacle in the bulb containment kit.
- C. use a trowel or shovel to scoop up the top few inches of soil and any white powder or pieces of broken glass and place it into the plastic container.
- D. use damp paper towels to wipe off any hard surfaces in the area. Place paper towels in the container as well,
- E. place gloves and vapor mask into the container, seal the container and place it in the bin outside of the cultivation area labeled, "CLF bulb storage"
- F. Remove disposable protective clothing suit which are required while in the cultivation area, and place it into the second air tight container in the broken bulb kit, place the suit into the CFL, High Pressure Sodium, or LED storage bin.
- G. Remove garden shoes, place into a plastic tub outside of the cultivation area, wash with soapy water, and set out to dry.
- H. Wash hands, with hot soapy water.
- I. Get a new protective clothing cover and garden shoes, and return to work. Avoiding the greenhouse or room where the bulb was broken for at least 2 hours.
- F. In regard to Hazardous spills staff training will include;
 - A. clean-up of broken CFL, High Pressure Sodium, and LED bulbs Protocol is identical.
 - A. watching a video on how to clean up a broken CFL, High Pressure Sodium,/LED bulb,

- B. Reading an information packet on the health risks of mercury poisoning, and first aide if a cut is suffered from a CFL, High Pressure Sodium, LED bulbs
- C. taking and passing a written quiz on facts about hazardous waste, and CFL, High Pressure Sodium, and LED bulbs
- D. Performing a "drill" under management supervision
- B. Reading literature spills of liquid hazardous waste; gasoline being the primary concern since it is the only hazardous liquid we use in the companies operations for small gasoline operated farm equipment. The four basic steps of a spill clean up are:
 - A. Control the spill
 - A. Stop the source of the spill. For example, upright the drum or stop the pump, turn off all ignition sources and locate drains.
 - B. Contain the spill
 - A. Use absorbent booms, banks of soil, hoses or any safe objects to surround and prevent the spill from further impacting the environment. Often with spills on soil, little sideways movement occurs after the initial few moments. Unless the soil is extremely compacted or wet, the spill will soak directly into the ground.
 - C. Clean up the spill
 - A. Large pools of liquid may be absorbed with pillows, pads or particulate. These absorbents are then recovered for disposal. The remaining spill should then be covered with a layer of an organic absorbent which is used to absorb any free liquid. If the type of soil allows, a rake can be used to help spread the absorbent material. Wood chips are recommended for this part of the procedure.
 - D. Remediation the soil
 - A. Biological remediation is often used to break down fuels, oils and other hydrocarbon products naturally. It's important to note this process can often be challenging in our dry

Lake county soil. Wood chips are a good substrate for mushroom mycelium, which is why our operation uses them in the clean up stage of the clean up.

- B. Noble Gardens CEO has 30 years of experience in horticulture and mycology, part of remediation for a spill like this involves layering wood chips over the spill area and inoculating them with mycelium. Typically after 1-3 months mushrooms fruit and the mushrooms are treated as normal organic waste, mushroom mycelium naturally breaks down hydrocarbons like those found in petroleum oils and fuels.
- C. This process will be repeated 2-3 times depending on the size and amount of gasoline spilled onto the soil.
- E. Staff will be trained and are responsible for the first three stages of clean up of a spill and the cultivation manager typically handles the forth stage of clean up and remediation.
- G. CFL, High Pressure Sodium, and LED are the most energy efficient lighting options available for their intended applications in our operations. The longer life span of these various bulbs means we will generate less waste in general.
 - A. Noble Gardens carefully deliberated over what type of bulb to use for supplemental lighting in the mixed light portion of the cultivation. While LED lights do offer more lumens per watt, and have a longer life span, they have a much smaller footprint, meaning that the light they offer travels a shorter distance and is extremely directional. Which means more lights to cover the same square footage as a high pressure sodium bulb. When it comes to hazardous waste, both bulbs are universal hazardous waste.
 - A. If LED or CFL bulbs develop better technology to match the light spectrum and coverage offered by the high pressure sodium bulbs, Noble Gardens aims to phase them out and use whatever new technology offers less waste production and lower energy usage.
 - B. Noble Gardens uses a combination of CFL, High Pressure Sodium, and LED lighting throughout the facility for security lighting, to light

work spaces, in greenhouses, and in the nursery, sheds and anywhere else lighting is necessary.

- C. At this time only LED lights are used for security purposes to light the cultivation area at night, on motion sensors, as no structures or green houses have been permitted, thus far.
 - A. While Noble Gardens CEO and GM have plans for proposed expansion, estimates on the exact number of lighting fixtures that will be needed are incomplete, and more consideration is needed. However, it is estimated that there will be at least 20 LED bulbs in our existing plans in security lighting fixtures.
- D. Noble Garden's green houses will employ 144 High Pressure Sodium bulbs in a total of 9 greenhouses, which will be erected in phases over the course of the next 3 years.
 - A. Each Greenhouse will have two rows of 8 fixtures placed 10 feet apart.
 - B. High Pressure Sodium bulbs have a rated life of 24,000 hours. One year is 8,760 hours. It is, however, suggested that those using HPS bulbs for growing plants should replace their bulb after about 18 months of use.
- E. Noble Gardens plans to use LED for work lighting and security lighting. More planning is needed, however, it is estimated that between 100 -200 LED could be needed for the company's proposed plans.
 - A. Many LED bulbs burn for an estimated 50,000 hours, burned for 12 hours a day they would last 12 years. Noble Gardens cultivation operation only uses supplemental lighting for 2 hours per day, 4 months out of the year, making replacement of these bulbs throughout the system happen every 15 years according to industry estimates.
 - B. These bulbs provide 90 lumens per watt where traditional incandescent bulbs only provide 15 lumens per watt. It will require fewer fixtures, and far fewer watts to get the lighting we need in our facility using LED lighting. Meaning that when replacement of bulbs is necessary, fewer bulbs will be

taken to the hazardous waste recycling than if we used another type of bulb for lighting.

- B. Noble Gardens anticipates having approximately 50-100 CFL bulbs in T5 style fixtures. These bulbs burn for ~15,000 hours or more. And while these bulbs are very energy efficient, they are only good in applications where they are allowed to burn for 5 or more hours, they also do not provide the proper light spectrum to support flowering plants. For these reasons, they will only be used in the nursery and mother plant nursery. CFL lighting will be used for approximately 15 hours per day to light a total nursery canopy of approximately 400 square feet in the form of mother plans and propagated clones in a nursery setting combined.
- H. See attached site map demonstrating the location of the private well on the parcel and the location of the cultivation site, which is downhill from the private well, ensuring that contamination of any hazardous material from the cultivation area is unlikely to occur.

Applicant is aware that California Health and Safety Code prohibits the use of hazardous materials except for limited quantities that are below the state threshold levels of 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of compressed gas. Furthermore the production of any hazardous waste as part of the cultivation process is prohibited.

Cannabis Vegetative Material Waste Management

This section shall include:

- A. Noble Gardens estimates that the primary type of vegetative waste generated while the company is licensed as a cultivator of cannabis will be in the form of partially processed trim material that has been stripped of active compounds to the extent allowed under CA Codes for licensed cultivators. At which point Noble Gardens will either;
 - A. Seek a licensed manufacturing company to hire to perform additional manufacturing of the trim material to further extract the active compounds from the plant. Noble Gardens will receive oil extractions which will be fully packaged and prepared for pick up by a distributor for retail sale.
 - B. Compost cannabis within the boundary of the cultivation site, under camera surveillance, and grind the material to the point of being unrecognizable and with another organic material which makes up at least 50% of the composition of the finished material.
- B. Permittee understands and agrees to comply with the State of CA codes and regulations, for the handling of, reporting and tracking of, disposal/composting requirements, and will work to minimize generating cannabis waste in compliance with the following;

Α.

For the purposes of this Chapter, "cannabis waste" is waste that is not hazardous waste as defined in Section 40141 of Public Resources Code, and is solid waste, as defined in Section 40191 of Public Resources Code, that contains cannabis and that has been made unusable and unrecognizable in the manner prescribed in subsection

(e). A licensee may not sell cannabis waste.

(b) A licensee shall manage all waste that is hazardous waste, as defined in Section 40141 of Public Resources Code, in compliance with all applicable hazardous-waste statutes and regulations.

(c) A licensee shall dispose of cannabis waste as identified in the licensee's Cultivation Plan approved by the Department. A licensee shall not dispose of cannabis waste in an unsecured waste receptacle, whether in the control of the licensee or not.

(d) Cannabis that a licensee intends to render into cannabis waste shall be held in the designated holding area for a minimum of 72 hours. A licensee shall affix to each batch one or more documents with batch information and weight. At no time during the 72 hour hold period may the cannabis be handled, moved, or rendered into cannabis waste. The cannabis the licensee intends to render into cannabis waste is subject to inspection by the Department.

(e) A licensee shall make cannabis into cannabis waste by rendering the cannabis unusable and unrecognizable. The licensee shall render the cannabis into cannabis waste before removing the

cannabis waste from the licensed premises. A licensee shall render the cannabis into cannabis waste by grinding and incorporating the cannabis with other ground material so that the resulting mixture is at least 50 percent non cannabis material by volume. A licensee shall render cannabis into cannabis waste and track that waste by batch. (f) Cannabis that a licensee wishes to deposit at a compostable materials handling facility or at an in-vessel digestion facility may be rendered cannabis waste by incorporating any nonhazardous compostable material, as defined in Title 14 of the California Code of Regulations at Section 17852 (a)(11), that a compostable materials handling facility or in vessel digestion facility may lawfully accept.

(g) Unless a licensee will compost onsite, after a licensee renders the cannabis into cannabis waste, a licensee shall do one of the following with the cannabis waste:

- (1) Dispose of the cannabis waste at a manned and fully permitted solid waste landfill;
- (2) Deposit the cannabis waste at a manned solid waste operation or a manned fully permitted compostable materials handling facility; or
- (3) Deposit the cannabis waste at a manned solid waste operation or a manned fully permitted in-vessel digestion facility.

(h) In addition to all other tracking requirements set forth in Sections 8404 and 8405 of this Chapter, a licensee shall use the track-and-trace system and onsite documents to ensure the cannabis waste materials are identified, weighed, and tracked while on the licensed premises and when disposed of or deposited in accordance with subsection (g).

- (i) A licensee shall enter the date and time that the cannabis was rendered cannabis waste and the weight of the resulting cannabis waste into the track-and-trace database.
- (ii) A licensee shall maintain accurate and comprehensive records regarding cannabis waste material that account for, reconcile, and evidence all activity related to the generation and disposal or disposition of cannabis waste. A licensee shall obtain a record from the solid waste facility evidencing the acceptance of the cannabis waste material at the facility. The record shall contain the name and address of the facility, the date, and the volume or weight of the cannabis waste accepted.
- (iii) These documents are records subject to inspection by the Department and shall be kept in compliance with Section 8400 of this Chapter. (k) A licensee shall enter the date and time of the disposal or deposit of the cannabis waste at a solid waste facility, compostable materials handling facility, or an in-vessel digestion facility into the track-and-trace system.
- D. Many growers anticipate a dried ratio of 20% of their total harvest being made up of what is considered trim material. This is fairly standard in the industry, with some numbers being reported as low as 15% depending on how closely flowers are trimmed or whether or not the cultivator classifies "smalls" as trim waste or not.
 - A. This material is not without value and can be stripped of it's active compounds quite fully. Noble Gardens intends to use the plant to it's full capacity by initially hiring out manufacturing services, and then after such time Noble Gardens applies for and is approved for manufacturing, the company will engage in using water and cooking oils to strip the plant of it's active compounds. Then the remaining plant material will be dried, weighed, stored within the secure boundaries of the cultivation site, kept under surveillance, weights will be reported to the State using the track and trace system and once approved by

the state the CEO will destroy the cannabis by mixing and grinding it with other organic material described above in section B.

- B. Noble Gardens anticipates having approximately 50 lbs of trim waste for the 2018 grow season under existing conditions and under stipulations of early activation of our permit in Lake County. It is the intension of Noble Gardens to cut energy usage by taking 50% or more of the outdoor drop each year directly from the field into a frozen extraction process which is consistent with CA state cannabis Codes for allowable cultivation activities. This material will still be largely active and will likely be transported to a licensed manufacturer for further processing. This will reduce the amount of cannabis waste Noble Gardens facility will cope with and report as cannabis waste through the track and trace system.
 - A. With a plan to add 2-3 greenhouses per year over the next 3 years bringing the company up to full capacity with 9 greenhouses total, by 2021 Noble Gardens expects that number to increase to approximately 280 - 580 lbs of trim waste which will be composted on site.

Growing Medium Management; this section includes:

- A. Noble Gardens utilizes rock wool in the nursery for propagating plants for cultivation. Rock wool is 2 cubic inches of material and this year Noble Gardens will use approximately 110 rock wool cubes which are planted directly into the soil in the garden and become part of the soil's composition.
- B. By the year 2021 the number of rock wool cubes Noble gardens will use will increase to approximately 1070 cubes annually.
- C. This the the only growing medium Noble Gardens uses, and it is not thrown away, or disposed of, it becomes a vital part of the soil composition. Which is constantly being enriched and nurtured by the cultivation manager. Wheat straw, various types of manure, compost tea, worms, compost material created through organic waste on the property, wood chips, bio char, and mushroom mycelium are all added each year to enhance the health and vitality of the soil in the cultivation site.

Water Resources

- A. Noble Gardens intends to minimize adverse affects on surface and groundwater resources.
- B. This section shall include:
 - A. The primary sources of ground water on the property are:
 - A. Storm water drainage
 - B. A private well
 - A. see attached well permit from department of environmental health
 - B. Currently there is only minimal seasonal watershed seen on the easement roads on either side of the property, (Ponderosa Trail and Black Oak Ridge) during rainy periods small shallow levels of drainage flows down the steep grade of the mountain located about 600-1000 feet south east of the furtherest boundary from the cultivation site, this only occurs during moderate to severe rainfall periods and generally only occurs after at least .5" of rainfall has occurred in the season. These surface water drainages are generally gone within 24 hours of heavy rainfall and do not
 - C. The property topography drops about 200 feet in elevation from 2200 feet in elevation to 2000 feet of elevation at an estimated 22-23% grade.
 - A. Noble Gardens cultivation site is located on a nearly flat portion of the parcel where the grade is less than 5%.
 - D. Aside from cultivation engineering in the form of swales on contour, no efforts have been made thus far to manage watershed from the property. There are no structures which create opportunity to capture or manage stormwater. Thus far there is no history of flooding on the property, or at surrounding properties.
- C. There are numerous ways in which Noble Gardens already attempts to minimize impact on the groundwater; and future plans are aimed at positively impacting watershed on the property, through managing storm water drainage from proposed buildings and greenhouses.
 - A. Noble Gardens already has some installations in place to minimize water usage:
 - A. Water for irrigation is not drawn directly from the supply well. Water is drawn at lower pressure for short periods of time into a storage tank, then the irrigation is drawn from the tank.
 - A. Permittee understands that it is detrimental to the overall capacity of the aquifer in which a production well pumps from to have water drawn in large quantities using the full capacity of the pump. When pressure drops in the aquifer and air bubbles are created, their is a high risk of erosion inside the cavity of the aquifer, when this occurs it reduces the overall capacity of the aquifer. When this happens repeatedly it can shorten the life of the well, and damage the well's production.
 - B. Swales are planted on contour; meaning surface water is captured naturally in the soil helping improve drainage within the garden bed

- C. Cultivation occurs in shallow trenches instead of in individual holes making watering more efficient and preventing irrigation efforts from being lost into surrounding soil needlessly.
- D. Numerous aspects of the garden bed are added with the specific intent to capture, hold, and disperse irrigated water sources more slowly and to prevent evaporation of irrigated water in the garden beds;
 - A. Wheat straw is layered around the garden beds to help hold irrigated water,
 - B. wood chips inoculated with mycelium are also added to the garden beds because the mycelium creates a symbiotic relationship with the plants to exchange sugar with the plants in exchange for water and other nutrients that roots cannot reach, but mycelium can, because the mycelium network reaches farther and more densely than the plant's root structure can in a given period of time,
 - C. 3 yards of Perlite have been added to the existing 5000 square foot cultivation area as part of the amendment to help capture and disperse water more slowly throughout the soil.
- B. Immediately upon commencing early activation Noble Gardens will install and implement the following methodology to improve water management in the cultivation process:
 - A. Installation of a well meter to track water drawn from the well and to track the well's water level and recovery rate.
 - B. Installation of a timer to prevent water from being used or drawn from the well for periods longer than 30 minutes at a time.
 - C. Installation of water monitors which measure soil's water levels and tell definitively if irrigation is required and where. These will be checked manually daily and data on gallons of water used to achieve and maintain optimal water levels will be closely charted on a daily basis.
 - A. At this time, only manual monitors will be used, as automatic systems tend to be inconsistent and incorrect. Users of automatic meters which trigger irrigation systems have reported problems with massive over/ under watering, neither of which is desirable.
- C. Noble gardens also plans to add a rain water catchment system on all proposed buildings, which will drain into a water storage tank for irrigation. A meter will also be placed on the tank to provide data on how much water is capture, stored, and applied from the tank to the cultivation site.
 - A. Noble Gardens has other more advanced systems in planning to capture evaporated water within the greenhouses, and in the drying room and to utilize that water as well, rather than allowing it to drain needlessly to the ground.
 - B. Pending approval Noble Gardens hopes to capture and treat some of the grey water from other buildings on the property and to store and utilize that water in irrigation as well. These are proposed buildings for which the applicant holds active building permits and work on that project is in progress currently.

- D. As mentioned above numerous parameters will be measured and charted;
 - A. Water levels in the supply well will be measured by a meter, A well watch 660. Information on this device can be found at; <u>http://www.enoscientific.com/well-watch-600.htm</u>
 - B. Several soil moisture meters will be placed in every garden bed placed 10' apart. These meters will give us valuable information that will tell our cultivation staff how much water to apply to a given area and the meter will tell them when the optimal level of moisture has been achieved. More information on the type of meter can be found here; <u>https://www.amazon.com/Moisture-Dr-meter-Hygrometer-Outdoor-S10/dp/B00PTLGKSQ/ref=sr 1_4?s=lawn-garden&ie=UTF8&qid=1527973023&sr=1-4&keywords=water+moisture+met er</u>
 - C. Staff will chart the following information at the prior to watering;
 - A. Moisture level according to each water meter in in a given row/ greenhouse in the cultivation operation.
 - B. How long water was applied and what the starting reading was on the meter from the tank, and what the reading was when water meters read optimal levels, to gain an understanding of how much water is needed to maintain optimal levels.
 - C. At the time applicant is granted permits to erect greenhouses and other structures within the cultivation area, and rain water catchment system is complete, permittee will also chart how much rain water is captured each month and include this in annual reporting to the Department.
- E. There aren't any springs, creeks, seasonal streams, or lakes on the lot of record or within 200 feet of the lot of record. Please see sheet 2 for reference.
- F. Topographical map is attached showing elevation and contours.

Water Use

- A. It is the intention of the permittee to conserve water resources by minimizing the use of water.
- B. Noble Gardens understands that activities shall have a legal water source on the premises, and have all local, state and federal permits required to utilize the water source. Permittee is not utilizing water from a source off of the property, and does not require any additional written permission to use another water source for any activities Noble Gardens, or it's officers are engaged in on the property.
- C. Permittee understands that Noble Gardens shall not engage in unlawful or unpermitted drawing of surface water.
- D. Permittee is aware that the use of water provided by a public water supply, unlawful water diversions, transported by a water hauler, bottled water, a water vending machine, or a retail water facility is prohibited.
- E. Noble Gardens operations uses a private well for irrigation, the well is located on the premises and is not on an adjacent parcel.
 - A. A well meter will be purchased and installed on the production well immediately commencing activation of this permit, or as a condition of the early activation if that is a requirement of the Department.
 - B. Monitoring and record keeping of the well, water levels, production, and use will begin immediately. And reports made available upon request by any agency seeking this information.
- F. Permittee understands that water may be supplied by a licensed water supplier, as defined in Section 13575 of the Water Code, on an emergency basis. The applicant understands that the Department shall be notified within 7 days of the emergency and that the following information shall be provided:
 - A. A description of the emergency
 - B. Identification of the retail water supplier including license number
 - C. The volume of water supplied.
 - D. Actions to be taken to prevent the emergency in the future.
- G. Permittee understands that a prepared Water Use Management Plan is to be approved by the Lake County Water Resources Department.
 - A. The plan will identify the source of water, including the location, capacity, and documentation that it is a legal water source.
 - B. The irrigation system shall be clearly detailed and methodology provided.
 - C. The projected amount of water to be used on a monthly basis for irrigation shall be provided separately from other uses of water, additionally the amount of water drawn from each source of water on a monthly basis will be detailed.
 - D. Calculations as to the efficiency of the irrigation system using the methodology of the Model Water Efficient Landscape Ordinance (California Code of Regulations, Title 23 Division 2, Chapter 27).

Noble Gardens Water Use Management Plan shall describe the methodology that will be used to measure the amount of water used and required monitoring performed.

Please see attached Water Use Management Plan

Property Management Plan

Operations Manual

- A. The intent of these operating procedures is to ensure that Noble Garden's Cultivation site operates in compliance with local permits, and that public health, safety and welfare and natural environment of Lake County are not compromised by our business practices.
- B. This section shall include the following:
 - A. Noble Garden's grant's agents, and employees of the County to seek verification of the information contained within the development permit or use permit applications, the Operations Manual, the Operating Standards at any time before, or after development or use permits are issued;
 - B. Noble Garden's has an extensive hiring process attached to this document. See attachment 1.
 - C. Noble Garden's hours for deliveries and business operation are Monday Friday
 9 am 6 pm.
 - D. error, item blank on county application.
 - E. One of the primary missions of Noble Garden's is to leave the earth better condition than the way we found it.
 - A. The applicants have already made improvements to the lot of record in cleaning up a previous illegal cannabis operation. The operators of the illegal grow left litter, debris, barbed wire, fencing, buried PVC for irrigation, camper trailers, vessels collecting water around make shift campsites, removal and clean up of these hazards was the sole financial burden of the applicant and the applicants family, an agreement to purchase the land is in place, part of that agreement stipulates that all ongoing land management, land improvements, taxes and accumulated interest on loan principle is the burden of the applicant as well.
 - B. As per agreement with land owner, Noble Gardens CEO and GM has remediated the site, and revitalized the land, and filled in the hundreds of potholes the previous owners dug for their plants in the area which is currently in use for our existing cultivation site. (early activation pending, Noble Gardens is not currently engaged in any cannabis cultivation activity).

- C. As Noble Garden's proceeds applies for additional permits for future growth, the company intends to install solar power energy to offset each new green house (up to 9 over the course of 2-3 years) These greenhouses can run partially on solar power. Noble Garden's growing season is 9 months long.. The cultivation project will only draw energy from the grid for supplemental lighting for as few as 3 and as many as 7 hours each day, and the propagation areas, up to 15 hours per day, depending on the season.
- D. Noble Garden's will invest in electric cars for all deliveries and business related travel in the region, once permits are applied for and obtained at state and local levels for Noble Gardens to engage in these activities.
- E. Noble Garden's seeks to install solar panels all structures built on the lot of record and to utilize 5000 square feet of area just outside the cultivation site fencing to off set any energy usage for the project.
 - A. Noble Gardens endeavors to be able to operate 80-100% off grid, using a combination of solar and wind clean power installations.
- F. The applicant has a building permit in place for a dwelling on the lot of record which is being heated with a hydronic floor heating system. This system is extremely energy efficient and has a very small carbon footprint.
- G. Noble Gardens will install energy star, energy efficient appliances in future buildings when available, and use evaporative cooling rather than AC when possible for employee break areas, office spaces, and dwellings.
- H. Noble Garden's will also participate in community outreach programs, encouraging recycling,
- F. Chemicals stored;
 - A. LP for heating, cooking, and emergency generator use. No more than 200 gallons of compressed gas is on site.
 - B. Small amounts of gasoline for gas operated tools, like mowers, weed whackers, etc. No more than 20 gallons is stored on site.
 - A. Please see the hazardous waste management plan for clean up of spills and staff training for hazardous liquid spills.
 - C. Pesticides listed in the pesticide management plan (attached for reference.)

- D. Fertilizer compounds listed in the fertilizer usage portion of the management plan (attached for reference.)
- E. 1-3 gallons Isopropyl Rubbing alcohol, stored in a container marked flammable, used for cleaning trimming scissors, table tops and other areas where cannabis comes into contact and leaves resin residue behind. No foreseeable discharge of IA as a result of operational activities.
- F. 1-3 gallons food grade Hydrogen Peroxide (stored in a locked container with pesticides, which is diluted and used as a foliar spray prior to harvest as a final treatment for any mold spores prior to going into the drying facility. Minimal amounts of 3 % solution may aerosol as plants are treated, this poses no harm to the environment, and precautions to prevent off site drift will be taken as listed in the pest management plan
- C. Grounds;
 - A. Noble Garden's has an extensive plan written and intended to be implemented as more staff is added to the team, to ensure that the grounds of the premises controlled by Noble Garden's are kept in a condition that prevents contamination of components and cannabis products. These methods for adequate maintenance include but are not limited to;
 - A. proper storage of equipment, removal of litter and waste, and cutting weeds and grass so that the premises shall not constitute an attractant, breeding place, or harborage for pests.
 - B. Proper maintenance of roads, yards, and parking areas so that these areas shall not constitute a source of contamination in areas where cannabis products are handled or transported.
 - C. Provision and maintenance of adequate drainage around the grow site, in and around buildings/greenhouses, to prevent contamination by seepage, foot-borne filth, or breeding of pests due to unsanitary conditions.
 - A. Noble Garden's has implemented a changing area for staff and guests at the entry to all areas where cannabis is grown, dried, cured, trimmed, packaged, processed, with jumpsuits and garden/work shoes, to prevent contamination of our grow site and work areas with microbiological contamination brought in on clothing or shoes and to also prevent guests and staff from tracking cannabis into areas outside of the processing area.

- A. Protective clothing for regular staff will be a cotton overall jump suit and head covering with garden shoes.
- B. Protective clothing for visitors and guests will be single use, and shoe covers.
- B. Noble Gardens has a strict "clean floor" policy in all work areas, such that any cannabis shall be swept at regular intervals to prevent any build up that could lead to tracking material and waste. Also staff and visitors are supplied with garden shoes to wear into the cultivation and processing areas, so that no foot borne tracked material leaves these areas, and no foot borne filth is tracked into the facility, and no cannabis material is tracked out.
- C. During harvest, the cultivation staff has a clean catch method of harvest in which the plant is loaded on to a clean tarp for transport so that parts of the plant are not dropped onto the ground in transit to the drying room.
- D. Our operations plan has created a work flow which minimizes movement of cannabis material on the grounds.
 - A. Cultivation, drying, curing, trimming, weighing, packaging and cannabis trim material, all occur within the boundaries of the fenced in area.
 - B. cannabis only leaves the fenced area to go to transport in a tamper evident packages under camera surveillance, and with a manager and another staff member present to thoroughly minimizing any cannabis litter from contaminating the area surrounding the cultivation site, and to prevent any diversion of material.
- D. Noble Garden's will provision and maintain the septic system and all waste water from the site to prevent contamination in areas where cannabis products may be exposed to such a system's waste or waste by-products.
- B. Noble Garden's is bordered by four residential properties. All of which are well maintained. However, in the unlikely event that one of these properties should become a nuisance for litter, pests, dirt of filth that is out of our control, the permittee shall take measures to exercise extreme care to prevent these issues from contaminating cannabis products.
- D. If there is any other information needed by the director/planning commission it will be furnished in a timely manner upon request.