ATTACHMENT 1B

Cultivation and Operations Plan

CMMLUO SITE/OPERATIONS OVERVIEW (Updated 12-23-2019)

Apps# 11426

APN: 220-071-008

Project Description: The applicant is seeking a Conditional Use Permit under the Humboldt County CMMLUO to allow continued mixed light cultivation totaling 21,000 ft^2 and development of infrastructure and facilities on the subject parcel. Date stamped air photos/maps have been previously provided showing cultivation operations occurring prior to January 1, 2016 encompassing an area totaling more than 33,000 ft^2.

The applicant acknowledges that the commercial cannabis activity approval being sought requires compliance with all other applicable State/ Humboldt County zoning and land use regulations. Determination of compliance will require multi-agency review of proposed activity/development described in the aforementioned special permit and, may also require site inspections by personnel from various governmental agencies.

If development and/or activities on the subject parcel are determined, for some reason, to be out of compliance with any applicable State or County code, regulation or policy, a compliance agreement can be formulated between the applicant and relevant agency or agencies, which includes a compliance timeline whereby operations may continue under a *"Provisional Clearance or Permit"* and corrective action is initiated to achieve compliance under agreed upon terms.

Parcel Information: The subject parcel (220-071-008) is approximately 214 acres, zoned TPZ – Timberland Production. The assigned address is: 3550 Goodman Ranch Road, Whitethorn.

Topography/Landscape: The subject parcel is a large timber preserve that straddles the Mattole river. The east side of the parcel contains a ridge where the cultivation activities occur on graded flats. The developed clearings are on top of the ridge on a natural flattened landscape average slopes of 10% or less. The parcel is 95 % covered with native mixed Douglas Fir forest with the exception of three small developed clearings.

Surface Water Features: The Mattole River snakes through the property as well as two smaller tributaries one which is named Finley Creek and the other is unnamed. There is also a spring located in the South-Eastern corner of the parcel.

Roads/Stream Crossings/Easements: The subject parcel is accessed from a private drive that branches west off of Goodman Ranch Road. The private drive passes through two neighboring parcels before entering the subject parcel. Interior roads and stream crossings are addressed in the Water Resources Protection Plan

Utilities: Electrical power is supplied to the residence and the first cultivation area from a diesel generator. A second diesel generator is used to supply power to the second(southern) cultivation area. A conventional septic tank-leachfield system serves the main residence and are easily accessed from the first (northern) cultivation area.

Water Supply: All water is sourced from a spring in the SE corner of the parcel. The applicant will obtain legal authorization from all state agencies having regulatory jurisdiction over water rights as applicable to the intended use of the spring.

Water Storage: A total of 45,000 gallons of water is stored on site at this time. The storage containers consist of five (5)- 5,000 gal tanks and one 20,000-gallon bladder.

The 5,000 gallon tank just east of the residence will be designated for fire suppression.

The Bladders will be phased out and additional storage tanksimplemented. The applicant ensures that more storage capacity will be added after the water rights are secured during the compliance process.

Structures/Facilities: There is one 1200 ft^2 residence located on the property. It is un-permitted and is believed to have been built in the 1970's.

Cultivation Area(s) and/or other graded flats: Cultivation on the subject parcel is limited to two (2) locations on graded flats.

Cultivation Area 1 is the northern most site and is the largest clearing. The residence is located near this area. Cultivation occurs as follows:

One (1) – 30' x 120' Mixed Light Greenhous

Three (3) – 30' x 105' Mixed Light Greenhouses

One (1) – 28' x 100' Propagation Nursery

Cultivation Area 2 in the SE corner of the parcel contains:

Two (2) - 35' X 105' mixed light greenhouses.

Cultivation Areas and surrounding ground surfaces have been evaluated in the development of a site-specific Water Resources Protection Plan (WRPP). Corrective measures in the plan will be implemented by December 2, 2017 (see included APP C section F ii for detail). The WRPP prescribes corrective measures to address conditions which may adversely impact water resources and it will establish a timeline in which to achieve compliance with RWQCB Order No.2015-0023. Corrective measures prescribed in the WRPP do not preclude the need for Cultivation Areas to be brought into compliance with all applicable state and local grading, excavation and erosion/sediment control regulations/requirements.

Peak Water Demand: The peak water demand anticipated to maintain plants during the warmest months is 30,800 gallons per month. The "Monthly Water Use" table below shows water use during the growing/cultivation season. Totalizing Flow meters shall be incorporated into the irrigation system enabling accurate monitoring and recording of water usage in compliance with applicable regulations.

Water use by Month

There is no agricultural water use during the months not shown

	Total Gallons
April	*15,000*
May	*15,000*
June	*21,800*
July	*30,800*
August	*30,800*
September	*30,800*
October	*15,000*

Irrigation Method(s): Irrigation is accomplished by hand watering. The cultivator uses conventional garden hose to water the crops. This is intended to be a precaution for overwatering by being with the water as it is flowing to prevent spilling and or wasted water. Mulch is carefully placed as a top dressing to optimize soil water retention.

Irrigation Runoff/Erosion control: The use of careful hand watering minimizes the chance of overwatering or residual discharge of irrigation solutions outside of the "targeted" root zone. In the unlikely event that residual discharge did occur it would contact permeable soil on nearly level ground in and around cultivation areas and be rapidly absorbed. **Lateral movement/irrigation runoff** of any irrigation water from the point of ground contact is very unlikely. The ground surface in and around cultivation areas is proactively managed to prevent any unwanted migration of entrained constituents such as fine sediment, fertilizer or other organic particles.

Watershed Protection: The Cultivation Areas on the subject parcel meet applicable setback requirements to watercourses, riparian zones or wetlands (see site plan). Natural vegetative buffers surrounding clearings/Cultivation Areas remain undisturbed. The applicant ensures BMP's related to storage, use and disposal of cultivation related materials/products in and around cultivation areas are adhered to at all times. This includes limiting cultivation activities to the immediate area where cultivation occurs and keeping products/materials securely confined so spreading due to weather or pests does not occur. **Watershed protection** will be ensured by adherence to measures prescribed in the Water Resources Protection Plan developed specifically for this parcel. A signed copy of Appendix A "Enrollment Notice of Intent" and an APP C reporting form where the date of Water Resource Protection Plan and implementation practices will be expected to be applied by December 2, 2017.

Once enrolled under R1-2015-0023 (Enrollment date 6/5/2017 see App C), participants are required to engage in ongoing monitoring, reporting and maintenance including periodic site inspections and reviews of operational practices to ensure regulatory requirements related to the following listed items are being met:

Site maintenance, erosion control, and drainage features	*Stream crossing maintenance*
Riparian and wetland protection and management	*Spoils management*
Water storage and use	*Irrigation runoff*
Fertilizers and soil amendments	*Pesticides and herbicides*
Petroleum products and other chemicals	*Cultivation-related wastes*
Refuse and human waste	

Additionally, participants ensure that management measures and controls are effectively protecting water resources, and that any newly developing problems representing a water quality concern are identified and corrected quickly.

Fertilizers/Amendments/Regulated Products:

List and describe machinery and equipment used for cultivation and associated activities.

There are two diesel generators used to supply power to fans, dehumidifiers and lights during certain times of the season

Describe equipment service and maintenance; including where it is done (oil change, cleaning, etc.)

Equipment maintenance is done in Redway or Garberville by qualified service providers.

List and describe petroleum products and automotive fluids used onsite.

Diesel Fuel is stored in a single 1,000-gallon tank placed within steel containment building.

List and describe compressed gases, cleaners, solvents and sanitizers used (including, but not limited to household chemicals, bleach, alcohol); indicate amounts normally stored and how/where they are stored. n/a

List and describe fertilizers, soil amendments, pesticides, herbicides and rodenticides used.

Indicate the amount normally stored and how/where they are stored

The following fertilizers/amendments are used at the start of the grow season. The mixing of these products into the 707 soil bags takes place only within a small area near the cultivation sites and the products are kept protected from accidental spillage.

Maxsea	Neem oil
Chinchin	707 soil mix
Molasses	

No pesticides or rodenticides are used on site.

The applicant acknowledges that the storage and/or use of certain materials in specified volumes and/or weights will be subject to regulation through Humboldt County Division of Environmental Health CUPA and may require: submittal of inventories for those materials, documentation of emergency and training procedures, maintenance of hazardous waste disposal records, obtaining an EPA generator ID number and be subject to site inspections.

Generators shall be properly enclosed in OSHA Compliant portable weatherproof noise-reduction structures to meet or exceed decibel reduction requirements (50 decibels measured at 100 feet from the generator or the edge of habitat). Secondary containment for generators shall be implemented as approved through Humboldt County Division of Environmental Health CUPA requirements.

Light Spillage Prevention shall be achieved through use of secured *Black-Out Tarps* placed over greenhouses any time lights are in use from 30 minutes prior to sunset until 30 minutes following sunrise.

Cultivation Related Wastes: Cultivation Related Wastes: Cultivation related wastes are sorted such that green waste materials are collected, stored within the garage of the residence and hauled to the recycling center once monthly. There are two compost piles onsite one near each cultivation area. The compost piles are contained within perimeter deer fencing and covered with tarps to prevent unwanted movement of materials due to weather conditions or animals/pests. Other materials, unsuitable for composting, are stored in conventional lid trash containers along with domestic garbage and hauled to an approved transfer station/disposal facility as needed. Spent growth medium containing inorganic substances such as perlite, will be stored in weatherproof containers and hauled to an approved waste facility as needed.

Human Waste: The subject parcel is developed with a main residence and has a functioning septic system. Only the individuals residing at the subject parcel engage in agricultural activities. Restrooms within the residences are easily accessed if needed.

Cultivation Operations/Practices (include generator and light usage): Operations shall be carried out by four individuals residing on the parcel.

Month	Activities	Lights On (hrs.)	Generator (hrs.)
February	Little to no activity for cultivation	0	0
March	Begin agriculture preparations, obtain clones and place under lights.	6 hrs./day	6 hrs./day
April	First round of crop planted in 707 soil bags, Lights are used at night – greenhouses are covered to prevent light spillage.	6 hrs./day	6 hrs./day
May	Plants begin flowering, remove bottom branches, trellis support, and maintenance.	6 hrs. /day	6 hrs./day
June	Ongoing site maintenance and garden care Purchase clones for second round. End the use of black put tarps for greenhouses.	0	0
July	Harvest of 1st round light deprivation, purchaser (Master Growers) picks up product as whole crop (off site). Plant 2nd round into new 707 soil bags, continue garden care.	0	0
August	Ongoing site maintenance and garden care. Later half of month plants are in flowering stage	0	0
September	In the early half of month, the plants are in mature flower stage. Begin preparations for harvest.	0	0
October	Begin harvest 2nd round light deprivation, purchaser (Master Growers) picks up product as whole crop.	0	0
November	Finish site clean-up and winterize.	0	0

Processing:

Plants are periodically inspected to ensure that any indication of pests, molds, mildews or disease are immediately addressed and crop quality is maintained. When ready, individual plants are hand harvested, placed inside clean transport containers and immediately transferred to the Ag Building where they are hung to dry. The drying area is cleaned thoroughly prior to placement of any harvested plants therein to minimize potential contaminant contact. Natural air flow may be supplemented with careful use of household fans/dehumidifiers to facilitate drying and maintain product quality control.

All equipment, surfaces and tools used in the harvesting/drying of cultivated product are used exclusively for that purpose. Equipment, surfaces and tools are visually inspected, washed and sanitized throughout the day. A Gentle detergent (such as *Simple Green or equivalent*) is used for cleaning followed by rinsing with potable water. Isopropyl Alcohol is applied as a sanitizer.

The applicant/operator is cognizant of potential mold and mildew problems associated with cultivation and product handling. Handwashing with potable water and soap occurs frequently throughout the day.

Any suspect plant matter which appears compromised for any reason is carefully removed and disposed of avoiding cross contaminant contact with other product, equipment or utensils. A separately designated green-waste stream is implemented to recycle plant waste.

The applicant/operator is well versed in the use/cleaning of equipment utilized throughout the operation. Cleaning materials are stored on shelves away from working surfaces. A fire extinguisher is readily available. The working space is kept clean and orderly.

Ample potable water for handwashing and restroom facilities are in close proximity to the Ag Building. The restroom in the nearby residence is equipped with first aid kits and eye-wash kits for emergency use. Wastewater from the restroom is plumbed to a conventional septic system. Cultivation operations are carried out by no more than four (4) individuals residing on the property, not transient/temporary employees; therefore, the daily **wastewater flow** resulting will not increase above normal domestic usage and can be accommodated by the septic system described.

All processing/trimming is done off site by a licensed facility.

Security: There is a single private drive which provides access to the subject parcel. There are two locked gates along the driveway. The applicant is and adjoining land partners are always on site during the cultivation months.