

**ATTACHMENT 1B**

**Cultivation and Operations Plan**

# Updated Cultivation and Operations Plan

## Description of Water Source, Storage, Irrigation Plan, and Project Water Usage

The water source for this project is a subsurface Point of Diversion (POD). The POD has been registered with the water board, annual dry season forbearance is practiced, and annual water reporting is currently contracted with Natural Resource Management (NRM).

The POD provides water to the storage tank cluster via a pump. The water is then pumped from the storage tank cluster to the feeding tanks, and then pumped from the feeding tanks to the canopy as needed.

Existing water storage on-site at this time includes four 5,000 gallon HDPE water storage tanks, six 2,500 gallon HDPE water storage tanks, and two feeding/mixing tanks of 500 and 275 gallons respectively bringing the existing total water storage available on site at this time to 35,775 gallons. There is an additional four 5,000 gallon tanks proposed bringing the total proposed storage capacity to 55,775 gallons.

Projected water use for the parcel leased by Slow & Steady, LLC.

Month	Daily Use	Monthly Total measured in gallons
January	0	0
February	0	0
March	0	0
April	93	2,800
May	142	4,400
June	273	8,200
July	310	9,600
August	277	8,600
September	70	2,100
October	0	0
November	0	0



December 0 0

Total annual anticipated water usage for commercial cultivation by Slow & Steady, LLC is 35,700 gallons. Additional water use is anticipated in association with a planned additional cultivation cycle. The additional cultivation cycle and associated water use will only be implemented after installation of the additional proposed water storage.

### **Irrigation Method**

A combination of drip irrigation and hand watering will be implemented to ensure plants receive optimal hydration while at the same time achieving maximum conservation of water resources. Plants will be watered at the time of planting sufficient to enable roots to set. Typically, plants are watered every other day in accord with the above water use estimate table. Plant feedings will be performed at agronomic rates to ensure maximum plant vitality while minimizing potential for agricultural runoff.

### **Description of Site Drainage**

This site has numerous drainage features. There are class II and III water courses as well as road drainage features including water bars, rolling dips, inboard ditches and a single culverted water crossing.

Drainage features are monitored and maintained on an ongoing basis.

The cultivation site is gently sloped to ensure adequate drainage but minimize erosion.

### **Parking Plan**

The site is capable of handling significant parking in excess of need. Four parking spaces are available on site, two at the cultivation site and two at the cabin with additional over flow road side parking available if needed. Over flow parking is available outside the lane of travel and does not inhibit road use or access in any way.

### **SRA Compliance**

An SRA hammerhead T turnaround is available if needed (see site plan for location).

A 2,500 gallon SRA Fire water reserve tank is proposed (see site plan for location).

### **Detail of Measures taken to Ensure Protection of the Watershed and Nearby Habitat**

The operator maintains the existing road network on a regular basis to ensure minimal erosion and hydrologic connectivity to waterways is minimized as much as possible. Low noise equipment is chosen and used to ensure minimal impacts to wildlife. The cultivation area is fenced to exclude impacts to wildlife in the immediate cultivation area, and the remainder of the parcel is predominantly forested with some open meadow habitat all of which is left in its native state. Wildlife is always allowed to leave the site unharmed. All fuels, petroleum products, and agricultural supplies are contained within secondary containment to ensure spills are avoided and housed in a secure locations to ensure wildlife does not have access to these materials.

### **Invasive Species Control Plan**

The site does not presently have an invasive species control issue. The cultivation area is a discrete and small portion of the entire parcel and is maintained for invasive species control with mechanical means (weed whacking and mowing). Chemical treatments are avoided. The remainder of the parcel is predominantly forested and in its natural native forest condition with some native meadow habitat, which is also left in its native state. If invasive species are identified they are removed by hand or mechanical removal and chemical treatments are avoided.

### **Protocols for Proper Storage and Use of Fertilizers, Pesticides, and Other Regulated Products**

All chemicals used in cultivation are stored in secondary containment under cover to minimize any potential for spill or contamination. Only safe and approved products are used. Proposed chemicals are: Dr. Earth Bud and Bloom Booster, Archipelago Bat Guano, Down to Earth Liquid Bone Meal, Botanicare Cal Mag Plus, Soil Scape Solutions - Foundational Formula and Bloom Top Dressing, and Lost Coast Plant Therapy (see attached materials data sheets for more information on products).

### **Waste Management Plan**

All cannabis plant material is bagged and delivered to a licensed waste receiving facility and is treated as solid waste.

The applicant uses biodegradable trellis netting to support plants throughout the cultivation season. The area of use is within the cultivation area which is fenced to exclude wildlife. Therefore, wildlife does not have access to the netting while in use precluding the risk of entanglement. Once the trellis netting has served its purpose for the product's reasonable life span, it is immediately bagged and taken directly to the licensed waste management facility. At no time is the trellis netting exposed to wildlife, nor is it ever left in an unprotected location or manner resulting in a threat of wildlife entanglement. The above described practices are used to ensure the biodegradable trellis netting is never allowed to become an entanglement risk.

Other waste is collected, sorted, and securely contained on site until such time as it can be regularly hauled to a licensed waste management facilities. Typically, Fortuna Transfer-station is used. Alternatively, Eureka Transfer-station may be used depending on which is convenient as to schedule and efficiency with other tasks. Dump receipts are retained.

### **Description of Cultivation Activities**

This application is for 7,400 square feet of existing outdoor commercial cannabis cultivation. Cultivation is performed in a total of 8 greenhouses consisting of (4) greenhouses with dimensions (12'x 96'), (3) greenhouses with dimensions (12'x50'), and (1) greenhouse with dimensions (12'x75'). There is (1) additional ancillary propagation greenhouse with dimensions (12'x50') proposed. The applicant utilizes light deprivation techniques to achieve between 1 to 2 harvests annually. Currently the applicant is limited to 1 harvest annually as existing water storage capacity is only sufficient to meet the demand of a single cultivation cycle. However, once the additional proposed water storage infrastructure is installed, an additional cultivation cycle may be achieved. Under no circumstance would additional cultivation cycles be performed in excess of water storage capacity.

Cultivation is preformed in raised beds. Soil is managed for optimal health through the process of turning and amending the soil between cycles with the addition of cultivating a clover cover crop during the off season. Once the cover crop has matured and spring is approaching, the clover is turned into the soil with the addition of organic amendments and the existing revitalized soil is reused.

### **Processing Plan**

Currently processing is preformed off-site at a licensed third party processing facility. The applicant currently intends to retain Sisu for this service but reserves the right to utilize a different processing facility at any time.

Once flowers have matured they are harvested and dried in the on-site drying facility. Once dry and ready for temporary storage, flowers are bucked to manageable size and stored in totes. Additional processing at this time is then performed off-site.

The applicant intends to process on-site at a future time utilizing exclusively Slow & Steady, LLC members and family once a permitted structure and septic system can be designed and developed. Until that time processing will remain off-site at a third party licensed processing facility.

### **Sewage Disposal**

The site currently relies on a portable toilet to manage waste. As the site is difficult to access for the portable toilet servicing vehicle, the portable toilet is maintained on a trailer that is hauled to a location that the service vehicle can easy access, the portable toilet is serviced, and returned to the cultivation site to support the operations needs. It is the applicants intent to maintain this system so long as necessary until a permitted septic system can be designed and installed.

### **Employees**

At this time the owner operator is able to perform all project related tasks and does not utilize any employees. However, the owner operator does foresee the potential for employees in the future and would anticipate using up to two employees at some time in the future if needed.

### **Number of Mixed Light Cultivation Cycles Proposed**

Mix light technique will not be implemented on this project. All cultivation will be strictly outdoor, and any light manipulation will be exclusively with light shielding. No more than five cultivation cycles will ever be performed per year and generally 1 or 2 are anticipated depending on annual whether conditions and available stored water.

### **Conformance with Dark Sky Standards**

No supplemental light will be used in the cultivation operation. If supplemental lighting is needed in the ancillary propagation area light shielding covers will be used to ensure little or no light escapes. No light shall be visible from neighboring properties from sunset to sunrise. International dark sky standards shall be met.

### **Energy Plan**

For full-term outdoor and exclusively light deprivation cycle manipulation limited power is needed. If supplemental lighting is needed in the ancillary propagation area the noise produced by the generator shall not be audible by humans from neighboring residences. The decibel level for generators at the property line shall be no more than 60 decibels. Generally speaking, generator use is not necessary to support the project. Minimal generator use may be necessary during the spring and occasionally in the fall. A low noise model generator is used (Honda 2000i). The site does not require additional energy demand. Addition of a solar system is under consideration.

**Schedule of Activities During the Season**

Plant stock shall be developed on site and supplemented with stock purchased from a licensed nursery facility as needed.

Starts will be developed in the ancillary propagation area and planted out as conditions indicate and plant stock is properly established and developed.

Plants will be grown with light deprivation technique.

Once the plants are fully developed and ready for harvest, they will be cut down, dried and cured on site in the drying and curing facility. The applicant retains the right to outsource all processing including drying if a preferred licensed processing alternative is identified. The cultivation soil is managed and maintained as described above.

**Table Describing Detailed Schedule of Activities During the Season**

Month	Activities
February	<ul style="list-style-type: none"> <li>• Spring site maintenance</li> <li>• Maintain mother stock if applicable</li> <li>• Begin amending soil</li> <li>• Haul garbage and recycling to transfer station</li> </ul>
March	<ul style="list-style-type: none"> <li>• Develop plant stock</li> <li>• Continue soil amendment process</li> <li>• Haul garbage and recycling to transfer station</li> </ul>
April	<ul style="list-style-type: none"> <li>• Develop plant stock</li> <li>• Transplant to larger pots as plants require</li> <li>• Support all plants with high Nitrogen fertigation solution</li> <li>• Spray foliar treatment if needed</li> <li>• Continue amending soil</li> <li>• Haul garbage and recycling to transfer station</li> </ul>
May	<ul style="list-style-type: none"> <li>• Complete all soil conditioning tasks; cover crops fully turned in, organic soil amendments added and mixed in</li> <li>• Support all plants with high Nitrogen fertigation solution</li> <li>• Begin planting out cultivation beds</li> <li>• Remove lower fan leaves as conditions indicate to improve air flow and disease resistance</li> </ul>

	<ul style="list-style-type: none"> <li>• Spray foliar treatment if needed</li> <li>• Haul garbage and recycling to the transfer station</li> </ul>
June	<ul style="list-style-type: none"> <li>• Plant out remaining plants</li> <li>• Support plants with high Nitrogen fertigation solution and shift to a high phosphorous low nitrogen feeding solution as conditions warrant</li> <li>• Lateral plant support infrastructure will be implemented to support the plants as they develop (see description above)</li> <li>• Remove lower fan leaves as conditions indicate to improve air flow and disease resistance</li> <li>• Spray foliar treatment if needed</li> <li>• Begin light deprivation if conditions warrant</li> <li>• Haul garbage and recycling to transfer station</li> </ul>
July	<ul style="list-style-type: none"> <li>• Continue with high nitrogen liquid fertigation applications or shift to a high phosphorous low nitrogen feeding solution as conditions warrant</li> <li>• Add top dressing soil conditioners as plant conditions indicate</li> <li>• Apply pest management techniques as needed in accord with the pest management plan</li> <li>• Remove lower fan leaves as conditions indicate to improve air flow and disease resistance</li> <li>• Spray foliar treatment if needed</li> <li>• Begin harvesting if conditions indicate</li> <li>• Process flowers when ready either on-site or off-site (see above)</li> <li>• Haul garbage and recycling to transfer station</li> </ul>
August	<ul style="list-style-type: none"> <li>• Apply liquid fertigation as conditions indicate</li> <li>• Spray foliar treatment if needed unless substantial flower development is present</li> <li>• Remove lower fan leaves as conditions indicate to improve air flow and disease resistance</li> <li>• Begin or continue harvesting as conditions indicate</li> <li>• Plant out starts for second cultivation cycle if conditions allow</li> <li>• Process flowers when ready either on-site or off-site (see above)</li> <li>• Haul garbage and recycling to transfer station</li> </ul>
September	<ul style="list-style-type: none"> <li>• Apply liquid fertigation as conditions indicate</li> <li>• Spray foliar treatment if needed unless substantial flower development is present</li> <li>• Begin or continue harvesting as conditions indicate</li> <li>• Process flowers when ready either on-site or off-site (see above)</li> <li>• Haul garbage and recycling to transfer station</li> </ul>
October	<ul style="list-style-type: none"> <li>• Begin or continue harvesting as conditions indicate</li> <li>• Dry in accord with drying procedure</li> <li>• Process flowers when ready either on-site or off-site (see above)</li> </ul>

	<ul style="list-style-type: none"> <li>• Haul garbage and recycling to transfer station</li> </ul>
November	<ul style="list-style-type: none"> <li>• Remove, bag, and deliver any post-harvest remaining plant material to a licensed solid waste receiving facility</li> <li>• Begin planting cover crop for winter</li> <li>• Finish drying any remaining flowers</li> <li>• Process flowers when ready either on-site or off-site (see above)</li> <li>• Haul garbage and recycling to the transfer station</li> </ul>
December	<ul style="list-style-type: none"> <li>• Finish planting cover crop if needed</li> <li>• General Property maintenance including road and site run off mitigation and refuse disposal</li> </ul>
January	<ul style="list-style-type: none"> <li>• General property maintenance including further road and site run off mitigation</li> <li>• Irrigate cover crop if needed</li> </ul>

\* All plant foods will be applied at rates consistent with or less than the manufacturer's suggested application rate.

\*\* Garbage and recycling may be taken at more frequent intervals as conditions require.

### Security Plan

The cultivation area is accessible only through locked gate(s). Video surveillance in the form of game cameras may be used.