

Green With Envy LLC
January 23rd, 2023
Revised Operations/Cultivation Plan
Location:000 Burr Valley Rd. Bridgeville, CA 95526
APN: 210-131-015
PLN-12323-CUP

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Operations Plan

Project Description

This project consists of 17,780ft² of pre-existing outdoor light deprivation cultivation, contained within fourteen (14) greenhouses. There are currently thirteen greenhouses totaling 16,275ft² (see individual greenhouse sizes in table below) The applicant is proposing to rebuild one additional greenhouse that was removed in the past to complete the project at 17,780ft². The project will also utilize three existing propagation greenhouses with a total square footage of 1,100ft² in association with this project. The applicant is also proposing to add one more propagation greenhouse (600ft²) to get up to allowable 1,700 sq ft of propagation space.

Water for this project is sourced from two rainwater catchment ponds with a total capacity of 465,930-gallons and is stored in a series of HDPE water storage tanks. (See water infrastructure table below) Water storage for this project includes 8,400-gallons of HDPE water storage that will be filled from the ponds for cannabis use and a 2,500-gallon HDPE water storage tank reserved for fire protection. There is an additional 24,000 of HDPE on adjacent parcels that will be used for project 12321. Rainwater analysis shows that the ponds have a total capture potential of 465,930-gallons. This project and the adjacent project PLN-12321 both utilize the rainwater catchment ponds for water diversion. These ponds have a sufficient amount of water in drought year conditions to support this project and adjacent project PLN-12321-CUP. There is no domestic water source on this parcel. Domestic water for this project is sourced from the spring diversion located on the adjacent parcel 210-131-018, under the same ownership. There is one additional pond on this parcel that not for cannabis use. This pond is denoted on the map and is for aesthetic use and fire protection/prevention.

Power for this parcel will be provided in the short term by a 25kw diesel generator. There is also a 45kw diesel generator on site for emergency back-up. The applicant is proposing to install a solar system consisting of 16 (sixteen) 250-Watt solar panels and 16 (sixteen) 385AH L16 batteries to power the project in the future. The applicant is anticipating that it will take four years to build and complete the solar array to use as primary power source.

Pesticides and nutrients will be stored in a locked (20' x 8') 160ft² storage container on adjacent parcel 210-131-018 under the same ownership. This storage containers will also be utilized for the same purpose by PLN-12321-CUP, which is located on 210-131-018 and 210-131-017.

Drying, curing and secure harvest storage will take place in two (2) 20' x 8' (160ft² each) storage containers, located on adjacent parcel 210-131-018, under the same ownership. These two storage containers will also be utilized or the same purpose by PLN-12321-CUP, which is located on 210-131-018 and 210-131-017.

The applicant will process off site and utilize a Portable Toilet with a service contract until an ADA compliant restroom can be built.

Land Features

Cultivation greenhouses have been built on existing flats at the time of purchase. These flats appear to have been graded at some point between 2012 and 2014 by a previous owner. The greenhouses are pre-existing, however, a few of them will be relocated. They will be relocated to an environmentally superior area further away from the SMA. The relocation area is pre-disturbed by operations currently. The area will be smoothed with hand tools to accommodate the relocation. See Justification of relocation document. No new ground disturbance is anticipated.

Access to Property

The site is located on Burr Valley Road, off US Highway 36, a State maintained road, in the Dinsmore Area. Personal driveway is shared with no additional neighbors. See Google maps for specific directions.

Proximity

The nearest neighboring property lines are 110 feet to the South and 84 feet to the west from the cultivation sites. Adjacent parcel to the west is under the same ownership. There are no schools, school bus stops, public parks, public lands, hiking trails or tribal resources within 600 ft of the property.

Equipment/ Power

This is an outdoor light deprivation cultivation operation, with processing to occur off-site. The only energy utilized by the applicant will be for ancillary cannabis activities including but not limited to:

- Drying room implements such as dehumidifiers, fans and lights for visibility.
- Water and air pumps for fertilizer
- Atomizer (for foliage feeding and pest/disease), and
- Supplemental lighting for the propagation greenhouses

Power for this parcel will be provided in the short term by a 25kw diesel generator. There is also a 45kw diesel generator on site for emergency back-up. The applicant is proposing to install a solar system consisting of 16 (sixteen) 250-Watt solar panels and 16 (sixteen) 385AH L16 batteries to power the project in the future. The applicant is anticipating that it will take four years to build and complete the solar array to use as primary power source.

Petroleum Based/ Fuel Products

Project site will not store any Hazardous Waste in threshold beyond domestic use. If any additional storage of hazardous waste becomes necessary, an appropriate application will be filed with DHHS.

Any above ground storage tanks and containers shall be provided with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. Onsite fuel storage tank is on a flat stable surface, within secondary containment and under a roof. All five-gallon gasoline cans are stored with secondary containment inside of shed or similar enclosure on flat, stable areas. The applicants will implement spill prevention, control, and countermeasures (SPCC). There are no underground storage tanks on the property. All petroleum products on property are stored with secondary containment inside of a shed or similar enclosure on flat, stable areas.

Solid Waste/ Recycling

Solid waste and recycling shall be stored in a location and manner that prevents its discharge to receiving waters and prevents any leachate or contact water from entering or percolating to receiving waters. All solid waste and recycling are stored in cans with lids on a stable, flat area. The cans are secured to exclude wildlife. Solid waste and recycling shall be disposed of at an authorized municipal waste transfer station. It will be taken to by personal vehicle, i.e., truck, 1-3 times per month depending on garbage accumulation.

Solid Waste and Recyclables Disposal

Recology Eel River
965 Riverwalk Dr.
Fortuna, CA 95540 707-725-5156
<https://www.recology.com/recology-eel-river>

Cultivation Plan

This project will consist of fourteen (14) greenhouses, with three (3) small ancillary propagation areas. All cannabis will be grown in greenhouses. Cannabis will be grown utilizing light deprivation cultivation techniques. All cannabis is harvested and dried on site.

Cultivation Areas

Cultivation Area	Cultivation Type	Cultivation Area	Structure Sizing
Greenhouse 1	Outdoor Light Deprivation	1,275 ft ²	85' x 15'
Greenhouse 2	Outdoor Light deprivation	1,800 ft ²	20' x 90'
Greenhouse 3	Outdoor light deprivation	1,800ft ²	20' X 90'
Greenhouse 4	Outdoor Light Deprivation	750ft ²	15' x 50'
Greenhouse 5	Outdoor Light Deprivation	1,275ft ²	85' x 15'
Greenhouse 6	Outdoor Light Deprivation	1,275ft ²	85' x 15'
Greenhouse 7	Outdoor Light Deprivation	1,500ft ²	75' x 20'
Greenhouse 8	Outdoor Light Deprivation	1,500ft ²	75' x 20'
Greenhouse 9	Outdoor Light Deprivation	1,800ft ²	90' x 20'
Greenhouse 10	Outdoor Light Deprivation	1,800ft ²	90' x 20'
Greenhouse 11	Outdoor Light Deprivation	500ft ²	10' x 50'
Greenhouse 12	Outdoor Light Deprivation	500ft ²	10' x 50'
Greenhouse 13	Outdoor Light Deprivation	500ft ²	10' x 50'
Greenhouse 14 (proposed)	Outdoor Light Deprivation	1505ft ²	20' x 75.25'
Propagation area 1	Ancillary Propagation	600ft ²	40' x 15'
Propagation Area 2	Ancillary Propagation	300ft ²	12' x 25'
Propagation Area 3	Ancillary Propagation	200ft ²	20' x 10'
Propagation Area 4 (proposed)	Ancillary Propagation	600ft ²	40' x 15'

Cultivation Area- This area consists of thirteen (13) existing Greenhouses and one (1) proposed greenhouse utilized for outdoor light deprivation cultivation for a total of 17,780ft² of flowering cultivation space.

Propagation Area- This area consists of three existing greenhouses totaling 1,100ft² and one proposed (600ft²) greenhouse that will be utilized for ancillary propagation. Total propagation area is 1,700ft². Propagation area is located on the adjacent parcel 210-131-018, under the same ownership. These greenhouses will contain supplemental lighting to aid the plants in early season vegetation. Entire greenhouses will be covered with black out plastic to ensure that no light leaks from the greenhouses when the lights are in use.

Ancillary Support Structures

Pesticide Nutrient Storage (shared)	8' x 20'	160ft ²
Drying, Curing, Harvest Storage 1	8' x 20'	160ft ²
Drying, curing, Harvest Storage 2	8' x 20'	160ft ²

Ancillary support structures are located on adjacent parcel v210-131-018, under the same ownership. Ancillary support structures are shared between PLN-12323-CUP and PLN-12321-CUP, located on the adjacent parcels 210-131-018 and 210-131-017, under the same ownership. The applicant will process off site and utilize a Portable Toilet with a service contract until an ADA compliant restroom can be built.

Immature Plants

Each spring the Applicant takes cuttings or clones from mother plants and rears them in propagation greenhouse till plants are ready to be moved to flowering greenhouses. Immature plants will be cultivated in three (3) greenhouses. Artificial lights will facilitate plant growth and hinder plants from moving into flowering stages ahead of cultivation schedule. All lighting will be shielded with black out tarps and checked daily for light leaks.

Cultivation Cycles

The Applicant cultivates in light deprivation greenhouses in two cycles from April to October. The first cycle is from April to July, the second cycle is from roughly July to October. The Applicant uses supplemental light inside the propagation greenhouse to start plants. The Applicant uses a blackout tarp over the flowering greenhouses, at regular intervals to impede natural sunlight. No artificial lighting in flowering greenhouses. All greenhouses will be equipped with fans. There are companion plants, native grasses and indigenous plants that grow in the garden and around the area to also help control any type of run off. There are no signs of wastewater runoff or erosion in these gardens. Hay is also spread around the area and on the topsoil. The water line as well as manifolds and fittings will be checked on a regular basis for leak or cracks.

Monthly Cultivation Site Activities

Month	Activities
January	Finish processing of fall harvest, trimming and storage. Plan new year. Mow cover crop. Check greenhouses for issues/fix. Check water lines, tanks and all equipment for repairs or damages. Make plan for repairs. Check status of all paperwork and reporting that is due for previous years. Renew State license.
February	Work on trenches/and holes for plants layer more compost in beds. Treat compost if necessary. Finishing processing last year's crop if still necessary.
March	Get clones from other permitted grow operation. Transplant and move into greenhouse with seedlings. Amend beds, fix fences, service equipment, make plan for independent contractors i.e.; painting, fence building, greenhouse fixing, etc.
April	Amend and start turning beds, prep dirt and supplies for greenhouse plants Add nematodes compost for pest prevention. Mid- April move first round of plants to greenhouses. Weed whacking, mowing, and brush cleanup. Complete quarterly reporting deadlines

May	Spray with preventive sulfur. Treat with biodynamic preparations for pest control and mold control. Greenhouse plants switched into flower using a blackout cover mid-late May. Turn beds, fix/ replace and clean drip emitters, check timers. Double check all water systems for leaks and clogs. Put out sound sensors for rodents.
June	Regular feeding schedule of compost teas adhered to. Pests are dealt with as they arise with oils, nematodes and predator mites from compost. Procure next round of plants.
July	Harvest greenhouse mid-month, replant with new clones from a permitted nursery. Treat plants with preventive measures. Harvested flowers to hang in drying area then to be cured and hand trimmed per processing plan.
August	Finish processing July's harvest. Monitor water supply, check lines and all areas for insect/ animal disturbance.
September	Prepare for Harvest. Clean and prepare lines and drying spaces in drying room. Clean all supplies and purchase new items needed. Harvest, cure and trim as outlined above in processing plan.
October	Harvest greenhouses. Process as outlined above. Pull all root-balls, pack hay and cover crop seeds on beds. Pull drip system. Check all equipment and tools for leaks and damages before storing for winter. Store all supplies possible, cleanup site.
November	Finish harvesting plants if necessary. Winterize water system, greenhouses, and sheds. Clean up drying rooms remove all lines and debris. Put away all supplies i.e. fans, dehumidifiers. Continue processing cannabis as outlined above.
December	Start amendments for winter. Prep all water and water storage system for shut down. Clean all garden implements. Put all left over supplies away. Driveway fixing, other farm/garden maintenance.

Processing Plan

Harvest

Cannabis will be harvested using gloves and clean tools. All cannabis will be hung to dry in the existing drying room located on the adjacent parcel under the same ownership and shared with PLN-12321. Dehumidifiers and fans will aid drying in the building. Cannabis will be dried for 10-14 days on lines in these areas depending on weather. The room will have proper ventilation, fans, and dehumidifiers to maintain proper environment. Moldy cannabis will be removed and destroyed using county and state approved procedures for holding and destroying unwanted product.

Curing

Curing will take place after cannabis is dried on the lines. Cannabis will be visually checked for mold then placed into plastic totes for curing. During this time the bins will be checked for mold and moisture consistency. Curing cannabis will be stored in drying room. Moldy or defective cannabis will be removed and destroyed using county and state approved procedures for holding and destroying unwanted product.

Processing

Cannabis Trimming will occur as cannabis becomes ready from curing process. Trimming will physically take place off site at a licensed facility. Processed cannabis will be bagged into turkey bags or sealed bags to be held until a distributor is ready. The trim or remaining leaves from processed cannabis, will be bagged into contractor bags to be stored until needed, sold, or destroyed in the legal manner.

Processing Plan (cont.)

Processing- Employees and Contractors

Employees will be seasonal and subcontracted as possible. Employees and contractors will have access to parking, spacious work zone, clean supplies for task, hand washing areas with soap, bathroom with sink and flushing toilet and break area. Fresh spring water is available, but workers are encouraged to bring their own drinking water. All areas are kept clean and in good condition All employees and/ or contractors will have access to personal safety equipment to meet the needs of the job for example, face mask, gloves, Tyvek suits, safety glasses, rubber boot covers etc. There are no worker sleeping quarters on site. Workers are encouraged to carpool to work daily, and applicant intends to mitigate any additional traffic on Burr Valley Rd., by reducing his own travel during times he has workers.

Worker Safety Practices

Safety protocols will be implemented to protect the health and safety of employees. All employees shall be provided with adequate safety training relevant to their specific job functions, which may include:

- Employee accident reporting
- Security breach
- Fire prevention
- Emergency Numbers

Materials handling policies

Use of protective clothing such as long sleeve shirts, brimmed hats, and sunglasses. Each garden site and or processing area have the following emergency equipment:

Personal protective equipment including gloves and respiratory protection are provided where necessary

- Fire extinguisher
- First Aid Kit
- Snake Bite/Bee Sting Kit
- Eye Washing Kit

Comply with all applicable federal, state, and local laws and regulations governing California Agricultural Employers, which may include federal and state wage and hour laws, CAL/OSHA, OSHA, California Agricultural Labor Relations Act, and the Humboldt County Code (including the Building Code).

Parking Plan

There are several parking spaces in front of the residence, which will provide more than enough parking for the project.

Security Plan

The private driveway off Burr Valley Road has a gate that we keep locked at sensitive times for security purposes. The garage/drying room is also long-term storage for cannabis and is always locked. No items of value shall be left in visible areas. The applicant plans to add a camera system to each of the gardens with a central base at the cabin or connected to smartphone. Applicant plans to have this system fully functional by 2025.

Domestic Wastewater

Domestic wastewater for this project is currently handled by a portable toilet with a service contract.

Water Irrigation and Storage Plan

Water Storage and Usage

Irrigation water for this project is sourced from a two rainwater catchment ponds with a combined total of 465,930-gallons in total pond water storage with 8,400-gallons in HDPE irrigation tank storage. Rainwater is collected into the rainwater catchment ponds and then fills the HDPE water storage tanks. These tanks are all plumbed together to insure even filling. This rainwater catchment system will collect more water than is needed for this project even in a severe drought year. See rainwater analysis below. Water use for this project is estimated to be 142,685-gallons annually. There is one additional pond on the parcel that will be used for aesthetic purposes and fire protection/prevention.

Water Infrastructure

Type/Size of infrastructure	Water Source	Use
Pond A 306,900-gallons	Rain	Irrigation for PLN 12323 and PLN 12321
Pond B 159,030-gallons	Rain	Irrigation for PLN 12323 and PLN 12321
3 QTY 300-gallon HDPE tanks	Rain catchment pond	Irrigation for PLN 12323
3 QTY 2500-gallon HDPE tanks	Rain catchment pond	Irrigation for PLN 12323
1 QTY 2,500- gallon HDPE tank	Rain Catchment Pond	Fire protection/prevention
1 QTY 3,000-gal. HDPE tank on adjunct parcel 210-131-018	Spring diversion	Domestic Use only
1,500-gal. HDPE tank on adjunct parcel 210-131-018	Spring Diversion	Domestic Use Only

Annual Water Usage

Month	Cannabis water use in Gallons	Domestic Water Use in Gallons
January	0	3,000
February	0	3,000
March	0	3,000
April	10,700	3,000
May	17,100	3,000
June	26,400	3,000
July	30,900	3,000
August	30,900	3,000
September	17,100	3,000
October	9,585	3,000
November	0	3,000
December	0	6,000
Totals	142,685-gallons	39,000-gallons

Rainwater Catchment Analysis

Irrigation water for this project and the adjacent project 12321, apn 210-131-017 and 210-131-018, is sourced from two rainwater catchment ponds and an additional 32,400-gallons in HDPE tank storage. Rainwater is collected in the rainwater catchment ponds and fills the HDPE water storage tanks. These tanks are pumped simultaneously and are all plumbed together to insure even filling with no over-fill.

The ponds are referenced as Pond A and Pond B on attached map and throughout this report. Rainwater catchment analysis was completed using www.prism.oregonstate.edu/explorer to analyze the capability of the rainwater catchment to capture sufficient water for the project. The average rainfall was taken from the lowest rainfall years from the past 30 years (1991-2021), which were 1991 at 46.37", 2013 at 29.41" and 2020 at 38.90". Average rainfall amount for this 30-year period is calculated to be 38.22".

Pond A has a dimension of 110' x 100' and is an average of 6 ft deep. Using volume calculators ($L \times W \times D \times 7.75$) to find pond capacity in gallons, Pond A has a total potential capacity of 511,500 gallons. At this time, 01/01/23, Pond A is not lined and therefor is expected to hold approximately 60% of the total potential capacity. Currently Pond A is expected to hold 306,900 Gallons. The applicants have qualified for a Watershed Enhancement Grant through Humboldt County Planning Department and intends to use the funding to install a pond liner by the end of 2023. Due to the fact that the pond is not currently lined, we have calculated Pond A's practical capacity at 306,900 gallons until the liner is installed. We expect full capacity of 511,500 gallons with the pond liner installed in 2024.

Pond A rainwater catchment surface area is 110' x 100' with an additionally 10ft radius of sheet flow surrounding the pond. Adding the sheet flow area into Pond A yields a catchment surface area of 120' x 110' or 13,200 ft². Using the rainwater catchment calculations and the data above, we arrived at 13,200ft² x 38.22 x 0.6234 equates to a total of 314,507 gallons of rainwater collected annually from Pond A.

Pond B has average dimensions of 95' x 60' and an average depth of 6 ft. Using volume calculators ($L \times W \times D \times 7.75$) to find pond capacity in gallons, Pond B has a total potential capacity of 265,050 gallons if lined. At this time the Pond B is not lined, and capacity is estimated at a total of 60% of the potential capacity. The applicants have qualified for a Watershed Enhancement Grant through Humboldt County Planning Department and intends to use grant awards to install a pond liner by the end of 2023. Due to the fact that the pond is not lined, we have calculated Pond B's practical capacity at 60% for a total of 159,030 gallons until the liner is installed. We expect Pond B to reach full capacity of 265,050 gallons with the pond liner installed.

Pond B is 95' x 60' and includes an average of 5ft of sheet flow radius surrounding the pond. Adding the sheet flow area into Pond B yields a catchment surface area of 100' x 65' or 6,500 ft². Using the rainwater catchment calculations and the data above, we arrived at 6,500ft² x 38.22 x 0.6234 equates to a total of 154,871 gallons of rainwater collected annually from Pond A.

Conclusion

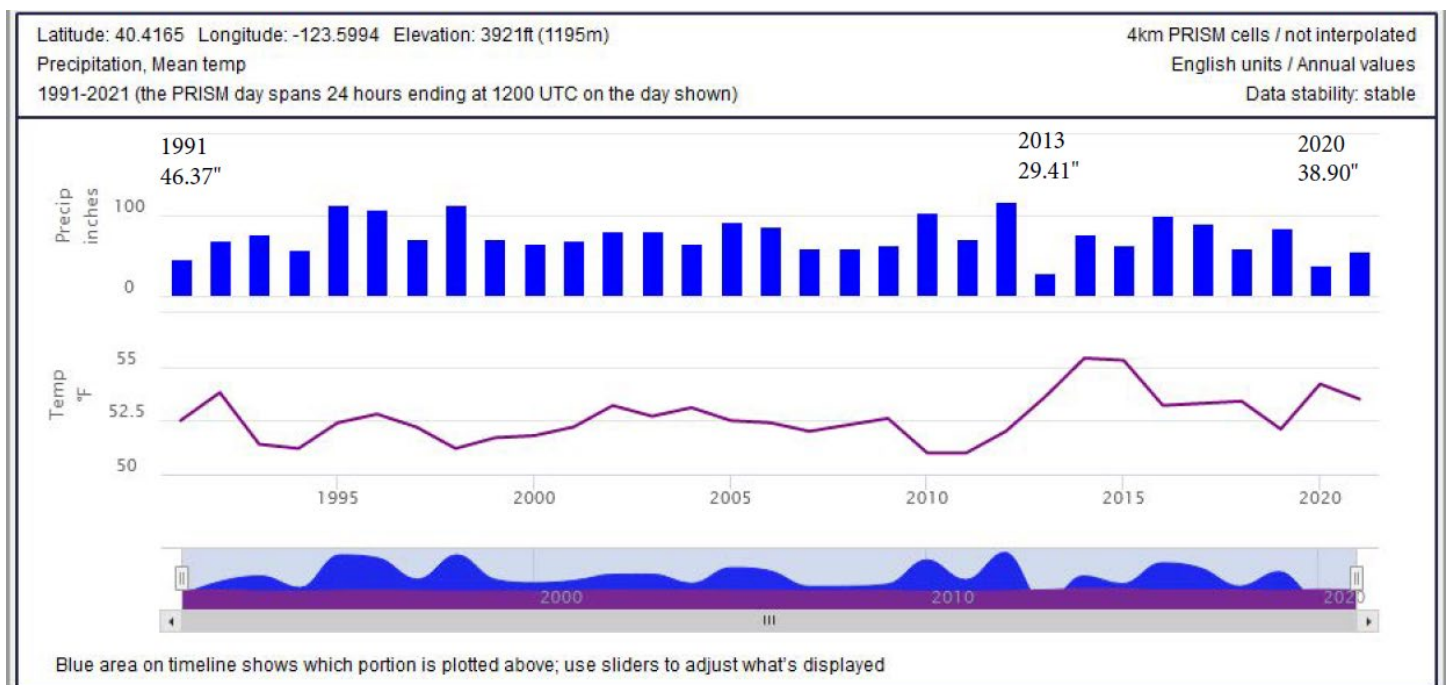
The total catchment area for Pond A & B is 19,700 ft². Using the rainwater catchment calculations and the data above, we arrived at 19,700ft² x 38.22 x 0.6234 which means that 469,379 gallons annually can be collected from both ponds. Without pond liner, Pond A has a capacity of 306,900 gallons and Pond B has a capacity of 159,030 gallons for a total of 465,930 gallons. With an addition of the existing hard tank storage of 32,400 tanks; in the current configuration, as of

Rainwater Catchment Analysis

Conclusion (cont.)

01/01/2023, the total storage capacity is 494,430 gallons. 8,400-gallons of Hard Tank storage will be utilized for 12323 and 24,000-gallons of hard tanks storage will be used for 12321. Once lined, the ponds will have a combined capacity to hold 571,950 gallons of rainwater for irrigation purposes. Water use for both projects PLN- 12321 and PLN-12323 is projected to be 267,875-gallons (12323 will use 142,685-gallons and 12321 will use 125,190-gallons which is 8.025-gallons per square foot). In their current configuration, Pond A and Pond B will provide an adequate irrigation supply plus additional water for both projects with a surplus of 226,555 gallons. With the installation of pond liners these ponds will have a new surplus of 304,075 gallons of water. The current water infrastructure and rainwater catchment ponds have been determined to provide more than enough water for the project.

Rainwater Catchment Analysis Graph from Prism.oregonstate.edu/explorer



Noise Control Plan

Noise from this cannabis cultivation operation would be limited to the noise from fans in the greenhouses, and fans and dehumidifiers in the greenhouses, in addition to the generator that currently powers the project. Applicant is proposing to add a solar system to eliminate the need for the generator. It is expected to take five years to get the solar system built and activated to run the operation. Noise generated by this project is not expected to extend beyond 50 decibels at 100 feet from the generator.

Invasive Species Control Plan

Invasive plant species must be managed on cultivation sites in Humboldt County, under the current regulations governing cannabis cultivation activities.

The sixteen most harmful weeds in Humboldt County include: Scotch broom (*Cytisus scoparius*), Pampas grass (*Cortaderia jubata*), gorse (*Ulex Europaea*), Himalaya berry (*Rubus discolor*), English ivy (*Hedera helix*), Cape ivy (*Delairia odorata*), European beachgrass (*Ammophila arenaria*), Ice plant (*Carpobrotus edulis*), yellow bush lupine (*Lupinus arboreus*), yellow star thistle (*Centaurea solstitialis*), spotted & diffuse knapweed (*Centaurea maculosa* & *Centaurea diffusa*), bull & Canada thistle (*Cirsium Vulgare* & *Cirsium arvense*), common reed (*Phragmites australis*), Spanish heath (*Erica lusitanica*), and Chilean cordgrass (*Spartina densiflora*). Most potential invasive species are likely limited to species such as Pampas grass, Scotch Broom, Himalayan Blackberry, Italian Thistle, Canada Thistle and English Ivy.

Invasive plant species easily colonize new and disturbed areas with increased traffic. Invasive species should be dealt with immediately by manual/mechanical labor such as removing the plant, root ball and remaining vegetation by hand shovel, cutting, and sawing. Prevention can be encouraged with mulching. Biological controls are not recommended as this is not usually an effective method and can enter streams and waterways.

The applicant employs following methods to help prevent the introduction and spread of invasive species.

- Cleans outdoor recreation gear.
- Not releasing any unwanted pets or fish into the wild
- Identifying the most troublesome invasive species, avoid spreading them, and trying to control them.
- Using only native plants that are appropriate for the region.
- Cleans all machines before and after use.
- Avoid disturbing natural areas whenever possible.
- Remove any invasive plant species using the hand pulling method to mitigate regrowth and the spread of seed.

If any of these invasive species are encountered, the applicant will use the hand pulling method to remove the invasive species, while mitigating regrowth and preventing the spread of seed. All Hand pulling of invasive species will be done wearing gloves and protective clothing. The applicant will mitigate the spread of invasive species by removing invasive species throughout the cultivation area and around the parcel using hand pulling method and dispose of them in a manner that would prevent spread.

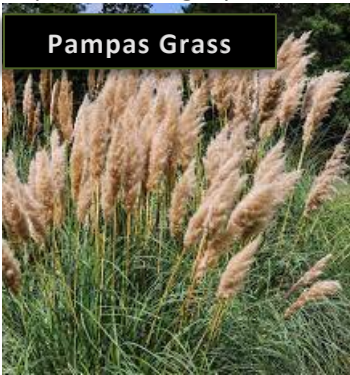
Several site visits have been conducted by our in-house biologist. He has reviewed these materials with the farm operators. All invasive species located have been removed thus far. The site will be monitor regularly for invasive species and they will be removed promptly once located and identified.

The following Invasive Species occur in Humboldt County. This list is being provided for easy referral to identify potential species. ***This is not a representation of the actual site.***

French and Scotch Broom (*Genista* & *Cytisus* spp.) With many roadside and grassland populations scattered throughout Humboldt County, brooms threaten to rapidly convert productive grasslands to unproductive shrub stands. Brooms are easily identified as yellow-flowered shrubs with small or no leaves.



Pampas / Jubata Grass (*Cortaderia spp.*) Present throughout Humboldt County, Pampas grass alters native shrub, grass and post-logging forest lands by excluding native plants. It is easily identified by its tall, feather-like seed stalks. Difficult to pull once large, plants are better removed when small.



Common Gorse (*Ulex europaea*) An invader of native coastal prairies, this shrub is most easily identified by its long, sharp spines, fuzzy foliage, and yellow flowers. Like brooms, this plant threatens to change diverse, native grasslands to dense, single species stands of shrubs. The plant's flowers are a deep yellow color.



Himalaya Berry (*Rubus armeniacus*), the Himalayan blackberry or Armenian blackberry, is a species of Rubus in the blackberry group Rubus subgenus Rubus series Discolores Focke. It is native to Armenia and Northern Iran, and widely naturalised elsewhere



English and Cape Ivy (*Hedera* spp. & *Delairea odorata*) These invasive vines climb over and cover native plants and trees growing in shaded places. Ivies will smother and weigh down trees and will carpet over a previously rich forest floor.



European Beachgrass (*Ammophila arenaria*) is a clumping perennial grass (family Poaceae) found in coastal dune systems from Santa Barbara County north. European beachgrass grows more densely than native American dunegrass trapping passing sand and creating steep dunes. This stop new sand from reaching interior dunes, changing the structure and ecology of dune ecosystems. Native plants often cannot compete with dense stands of European beachgrass.



Ice plant (*Carpobrotus edulis*) is a ground-hugging succulent perennial that roots at the nodes, has a creeping habit, and often forms deep mats covering large areas. Shallow, fibrous roots are produced at

every node that is in contact with the soil.



Yellow Bush Lupine (*Lupinus arboreus*) An invader of coastal dunes, this plant overwhelms diverse native dune flowers and enriches the soil, paving the way for invasive annual grasses. It is easily identified as the shrub in the dunes with the many bright yellow spikes of flowers.



Italian, Yellow Star, Canada, and Bull (*Centaurea* & *Cirsium* spp.) This suite of invasive thistles infests native grasslands, roadsides and fields. These species displace native plants and are often noxious to native wildlife and livestock.





Spotted Knapweed (*Centaurea maculosa*) is a biennial or short-lived perennial with a deep taproot. The taproot forms a new shoot each year. Early in the season, the plant appears as a rosette, a leafy prostrate plant. Its rosette leaves develop on short stalks at the base of the plant. They are grayish green and deeply divided into oblong lobes.



Spanish Heath (*Erica lusitanica*) While this low woody shrub is native to Europe, it now grows here in open, coastal areas with sandy soils. The shrub's flowers appear as many pinkwhite bells hanging on branches with soft, needle-like leaves.



Common Reed (*Phragmites australis*) More invasive strains originated in Europe. Invasive European strains probably introduced during the 1800s Crowds out native species to prevent growth.



Chilean Cordgrass (*Spartina densiflora*) a dense-flowered cordgrass is a rhizomatous perennial grass (family Poaceae) found in salt marshes in Humboldt Bay and San Francisco Bay. Dense-flowered cordgrass may have been introduced to Humboldt Bay from Chile by lumber ships in the 19th century.



Japanese and Himalayan Knotweed (*Polygonum* spp.) Invasive knotweeds can grow from very small amounts of leaf or stem, increasing the chance that plants growing on stream banks may aggressively expand and outcompete native plants.



Soils Management Plan

Cultivation Soils

All soil from cultivation site will be reused and never dumped. Reused meaning the applicant either tills the soils in place in the garden areas or creates a pile with straw waddles at the bottom and covers with black plastic. These areas will meet all BMP's required. Applicant amends the garden soils every year with basic amendments. Greenhouses plants are planted in beds directly in the ground. Protection from overuse of inputs and reuse of these soils shall be a key component of operations. Operations will protect the resources through the following means:

The Site management plan will be implemented, Cultivations will occur in beds, air pots, or in the ground. Mixing, tilling, and amending of soils will occur within the receptacles. Composting is in a secure dedicated area. Vegetative materials will be chipped back into the compost pile. Cover crops will be utilized when not in cultivation for a month or more to reduce soil loss. Garbage from the cultivation is limited to bags from amendments and fertilizer containers. All items will be cleaned out properly into the garden area, recycled if possible and if not removed to the transfer station.

Cultivation-related wastes including, but not limited to, empty soil/soil amendment/ fertilizer/pesticide bags and containers, empty plant pots or containers, dead or harvested plant waste, and spent growth medium shall, for as long as they remain on the site, be stored at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into surface water or groundwaters.

Stormwater management Plan

Erosion Control

This cultivation site is flat. Daily inspections to verify that spoils are not stored or placed in or where they can enter any surface water. Spoils will be adequately contained or stabilized to prevent sediment delivery to surface waters. Spoils generated through development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas shall not be side cast in any location where they can enter or be transported to surface waters. We will use appropriate erosion control measures to minimize erosion of disturbed areas, potting soil, or bulk soil amendments to prevent discharges of waste. Fill soil shall not be placed where it may discharge into surface water. Weed-free straw mulch is used on exposed soils and, if warranted by site conditions, shall be secured to the ground. We will not plant or seed

Stormwater management Plan

Erosion Control cont.

noxious weeds. Prohibited plant species, only locally native, non-invasive, and non-persistent grass species will be used for temporary erosion control. We will incorporate erosion control and sediment detention devices and materials into the design, work schedule, and implementation of all cannabis cultivation activities. Measures to limit or prevent erosion, include, but are not limited to, removal of fill from watercourses, stream restoration, riparian vegetation planting and maintenance, soil stabilization, erosion control, upgrading stream crossings if needed, road out sloping and rolling dip installation where safe and suitable as needed, installing ditch relief culverts and over side drains if prescribed, stabilizing unstable areas, reshaping cut banks, and rocking native- surfaced roads. We will do our best to implement all applicable Erosion Control and Soil Disposal and Spoils Management Requirements in addition to the Winterization Requirements below by the onset of the winter period (November 15).

Measures to Protect Watershed

All spraying of plants for any type of pest control, mildew/mold control or foliage feeding is done when winds are at 0 and sprayed directly onto plants without over spray. No generators or household projects of any sort happen within 200 ft feet of the watershed. No pumping or dumping ever occurs in watershed. All fertilization of plants is monitored closely. Fertilizer comes from separate tanks. Implementing water conservation measures, irrigating at conservative rates, applying fertilizers at conservative rates, applying chemicals according to the label specifications, and maintaining stable soil and growth media should serve to minimize the amount of runoff and the concentration of chemicals in that water. If irrigation runoff occurs, measures shall be in place to treat/control/contain the runoff. We try to be water conservative and use no more than what is required. Irrigation runoff will be contained so that any pollutants are trapped in the ditch relief. Irrigation runoff will be managed so that any entrained constituents, such as fertilizers, fine sediment and suspended organic particles, and other oxygen consuming materials are not discharged to nearby watercourses. We will do our best to ensure that irrigation tailwater is not discharged towards or impounded over unstable features or landslides.

Light Pollution Control Plan

The only light applicant uses is supplemental light for immature plants. Immature plants located in the propagation greenhouse. Area is well maintained and inspected for light leaks every day that plants are under this light. The light is small supplemental light 30-40 22w light bulbs. Entire propagation greenhouse is blacked out with black plastic to prevent light leaks. Applicant guarantees that there are no light leaks coming from the propagation greenhouse.

Energy Generation and Consumption Plan

The applicant, Green with Envy LLC cultivates cannabis in greenhouses, using light deprivation cultivation techniques. There is a small amount of supplemental lighting in the propagation greenhouse, that is in use February through June. Propagation Greenhouse lighting, water and air pumps, atomizer (for foliage feeding and pest/disease), fans, power tools, surge protectors, dehumidifiers, cannabis trimming machine and all electrical supplies and equipment as well as all domestic power in the residence is sourced from one 25kw diesel generator at this time. There is an additional 25kw generator, and several small EU3000i Honda Generators that are used for emergency back-up purposes. Small Honda Generators will only be used in severe cases of emergency, when both 25kw generators are malfunctioning. Honda Generators would be used for domestic purposes, to power supplemental lights during propagation, and to power fans and dehumidifiers during harvest. Honda generators would only be used to power fans in greenhouses when someone was present working in the greenhouse. Generator is always monitored by someone at site while in operation.

Energy Generation and Consumption Plan cont.

Energy conservative methods are employed throughout the property. Domestic generator purposes limited to actual use time and generators are never left running without power loads. Domestic generator use is year-round, from the residence daily in the morning and at night,

Cultivation activities and cultivation with light deprivation will occur seasonally with 2 harvests. The following energy information describes the current project as it is, while on generators. Lights are only used in the propagation greenhouse to supplement natural light and keep plants in a vegetative state. Drying and processing activities consume power but are executed quickly in an efficient manner to minimize time of generator use.

Generator #1 is 25kw and is used primarily for all domestic purposes and cannabis activities. See chart below for monthly rates.

Generator #2 is a 25kw Diesel Generator that is only used for emergency back-up purposes. If the 25kw generator is used, it is only used short term, until repairs can be made on primary generator.

Emergency Back Up- The applicant owns eight (8) Honda EU3000i generators that are used for emergency back-up purposes, only in severe cases when both 25kw generators are broken.

Current power requirement for propagation greenhouse is 460 watts of power. Supplemental lighting fixtures in propagation greenhouse are small, two sets of string lights with ten 23watt bulbs each for a total of 460 watts. Each light deprivation greenhouse contains several industrial fans. The drying shed also has fans and dehumidifiers.

Cultivation occurs in two cycles. Cycle one begins in late February of every year and cultivation ends in early July. Cycle two begins in May and ends in late Oct/ early Nov depending on Cannabis strain choices. Propagation Space is utilized from Feb through April and vegetative plants are moved into flowering greenhouses in April. New vegetative plants are started in the propagation greenhouses in May and moved into Flowering Greenhouses in July.

Flowering greenhouses do not receive light assistance. Fans and dehumidifiers are used frequently in these greenhouses year-round and powered by the 25kw generator.

OSHA requirements have been met by the applicant and Hazmat training will be completed by the end of 2022. All hazmat materials are removed from site immediately and not stored in amounts that exceed threshold hold requirements for CUPA.

Plans for Photovoltaic solar system consisting of 16 250w photovoltaic panels and 16 deep cycle batteries with inverter is in progress. Applicant anticipates that all solar equipment installed and operational by 2026. At that time only one generator will stay on-site as a backup power source in cases of bad weather and low solar output.

Energy Consumption Table

Type of Power Use	Hours per month												
Generator	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
25 kw Diesel Cannabis Operations (Hours in use while no domestic)	0	112	124	180	186	60	129	60	180	128	124	0	1,283 hours
Total hours of energy generation Cannabis	0	112	124	180	186	60	129	60	180	128	124	0	1,283 hours
Type of Power Use	Hours in operation per month												
Generator	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
25 kw Diesel Domestic Operations	196	178	196	190	196	190	196	196	190	196	190	196	
Total hours of energy generation Domestic	196	178	196	190	196	190	196	196	190	196	190	196	2,310 hours
Total hours of energy generation Property	196	290	320	370	382	250	386	256	370	324	314	196	3,654 total hrs/yr

Energy calculations include fans, dehumidifiers, and trim machines. Trim machines only used during harvest in July, October, and November.

February through June propagation greenhouse will require an additional 4 hours a day of power.

In July, October and November drying and harvesting as well as processing will occur. Power usage will increase by 4 hours a day on 25kw domestic use generator.

Domestic Calculations based on 2 hours in the morning and 4 hours in the evening of generator use for domestic purposes. Additional 10 hours of emergency use added per month.