Cultivation and Operations Plan
For
Whipsawasons, LLC
APN# 217-391-012

Proposed Cannabis Cultivation Facilities

Lead Agency:

Humboldt County Planning Department
3015 H Street
Eureka, CA 95501

March 2024

Project Description:

Whipsawasons, LLC is proposing a Special Permit to expand the existing Cannabis Conditional Use Permit (app # 12216) of 12,000 square-feet (SF) consisting of (13) outdoor light-deprivation hoop houses to an additional 8,400 SF for a total cultivation area of 20,400 square-feet (SF). The proposed expansion would add an additional (12) 10'x70' (8400 SF) light deprivation hoops to a pre-existing graded flat on the parcel. The proposed expansion would include adding an additional 800 SF to the ancillary nursery space for a total of 2,000 SF. Water is sourced from the pre-existing 550,000-gallon rain catchment pond. There is an additional 30,000-gallons in hard water storage tanks for irrigation use. Domestic water is supplied from a ground water well. Power is sourced from a pre-existing solar system with a backup 7000 KW Honda generator used for backup to charge the batteries. The generator is located within a shed and is directly connected to the solar system. There is an additional solar panel used to operate the well pump. Three seasonal employees will be required to manage the cultivation operation. Processing will occur offsite.

Site Description:

The project site is located approximately 59 miles southwest of Eureka CA. To reach the site from Eureka take US-101 South for 17 miles to exit 685 to HWY 36 east. Continue on HWY 36 for 24 miles then take a right onto Alderpoint Road. Stay on Alderpoint Road for 18 miles and take a right onto Sunset Ridge Road for 3.4 mile and the driveway is located on the left at 2555 Sunset Ridge Road Blocksburg CA. Approximate drive time from Eureka Ca is 1 hour and 40 minutes with a distance of 85 miles. The site is located at Latitude 40.2874 and Longitude -123.6701. The subject parcel is approximately 40 acres in size (per Humboldt County WEBGIS).

Land Use:

The subject property has a General Plan designation of Dispersed Housing as identified by the Northern Humboldt General Plan (NHGP) and is zoned RA40; FR-B-5(40) Forest Recreational: The Surrounding parcels are zoned Agricultural Exclusive (AE), Timber Production Zone (TPZ).

California Department of Fish and Wildlife:

An LSAA (1600-2018-0038-R1) was issued by CDFW on May 20, 2020. There is a total of 4 ephemeral Class III watercourses that exists on this property which are outside of County and Agency setback. All CDFW upgrades have been completed.

Invasive Species:

Whipsawasons, LLC adheres to the recommendation from CDFW to monitor, report and control Invasive Species. Please see the Bull Frog Management Recommendation provided in the Appendix.

Invasive plant species were not discovered to any impact on the property during the botanical early and mid-season evaluations. Monitoring will continue and any sign of invasive species evaluated by a qualified botanist to further advise on control and remove of said species.

State Water Resources Control Board:

A total of (4) ephemeral class III watercourses exist on this property. All road crossing culverts have been upgraded to Corrugated Metal Pipes (CMP) and sized according to LSA issued by CDFW. Water for irrigation is sourced from a 550,000-gallon rain catchment pond. Domestic water is provided by a groundwater well. Groundwater well is located at 40.2874, -123.6701. The water registration number is WDID# 1_12CC403573.

North Coast Regional Water Quality Control Board:

Whipsawasons, LLC has enrolled with the North Coast Regional Water Quality Control Board (NCRWQCB) for coverage under Tier 1 low risk of Order No. 2015-0023 *Waiver of Waste Discharge Requirements and General Water Quality Certification for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects in the* A Water Resources Protection Plan was developed for the project by Natural Resources Management Corporation and has been implemented for activities associated with onsite cultivation since August 2017 and all corrective measures per the WRPP have been completed. The Site Management Plan has been developed by Elevated Solutions and will encompass new corrective measures installing rolling dips and be implemented in the 2021 season.

Water Source and Projected Water Use:

Agriculture irrigation water is sourced by a 550,000-gallon rain catchment pond. Domestic water is sourced from a groundwater well. The location of the groundwater wells is over 200'+ away from any water course (Latitude 40.2874, -123.6704). There is an additional 30,000-gallons of hard water storage used for irrigation use located next to the well. Water is pumped from the pond into the tanks during the winter months for additional irrigation use.

The table below outlines the estimated irrigation water usage for cultivation during a typical year. Variables such as weather conditions and specific cannabis strains will have a slight effect on water use.

Table 3.1: Estimated Annual Irrigation Water Usage (Gallons)

Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
0	0	0	0	15,000	35,000	48,000	35,000	48,000	20,000	0	0

Rainwater Irrigation and Storage:

Water used for Cannabis irrigation is sourced from rain catchment. Rain water is captured from the surface area of the 550,000-gallon pond (4,800 SF) and the roof of the 40'x50' Metal Building (2000 SF), residence 1,600 SF, 12,000 SF of existing greenhouses and an expansion of 8,400 SF. For a total of 28,800SF of surface area.
The applicant was awarded a DCC water storage grant under the second distribution of funding. With those funds the applicant will line the existing pond and add additional water storage tanks.

Total 2023 Rain Catchment (65.67") 278,208 -gallons based off of pond and building surface areas.

Rain Catchment Volume Sources:
28,800 SF of catchment surface area
688,808-gallons annual - Average Rainfall Drought Year (38.39")
1,447,233.98-gallons annual – 50yr Average Rainfall (80.66")
1,178,277.41-gallons annual – 2023 Rainfall Totals (65.67")
(28,800 x .623 x inches in rain = Total Catchment available.)

Evaporation Rate:
28.79" or 2.39' of evaporation during drought year or about 86,816-gallons
(38.39 x .75 = 28.79"/12 = 2.39')
Evaporation Area: 4,800 SF
(4800SF) x (2.39') = 11,472 ft^3 Water Conversion: (x 7.48052) = 86.816-gallons

Water demand estimate: 201,000 Irrigation + 86,816 Evaporation = 287,816-gallons.
Total Current Water Storage: 580,000-gallons

Historical data was collected via https://prism.oregonstate.edu/explorer/ based on the time period of 1968-2023. The data provided shows that the lowest rainfall totals were recorded in 2013 22.79" and the highest recorded year being 1983 115.74". The average annual rainfall during this period is 80.66". Taking into account for drought years the data from the 10 lowest rainfall years medium of 38.39" was used to calculation drought year collection possibilities

Data Source
Annual Estimated Water Use after expansion: 201,000-gallons/10-gallon per SF. Estimate based off of current water use per sf of current cultivation. Evaporation loss location was used as Willow Creek which is the closest similar monitoring location provided.

Evaporation Loss:

CALIFORNIA
MONTHLY AVERAGE PAN EVAPORATION (INCHES)

	PERIOD OF RECORD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
WILLOW CREEK 1 NW	1968-2005	0.58	1.35	1.81	2.74	4.73	6.50	7.53	6.05	3.79	1.94	0.75	0.92	38.69

*multiply by 0.75 correction factor to offset heat exchange
Source: https://wrcc.dri.edu/Climate/comp_table_show.php?stype=pan_evap_avg

PRISM Time Series Data
Location: Lat: 40.2824 Lon: -123.6666 Elev: 1775ft
Climate variable: ppt
Spatial resolution: 4km
Period: 1973 - 2023
Dataset: AN91m
PRISM day definition: 24 hours ending at 1200 UTC on the day shown
Grid Cell Interpolation: Off
Time series generated: 2024-Apr-01
Details: http://www.prism.oregonstate.edu/documents/PRISM_datasets.pdf

Date	ppt (inches)
1973	84.32
1974	64.08
1975	72.47
1976	29.10
1977	48.79
1978	56.37
1979	61.44
1980	53.77
1981	76.01
1982	83.93
1983	115.74
1984	59.37
1985	34.07
1986	72.99
1987	58.25
1988	49.31
1989	44.41
1990	44.20
1991	38.62
1992	57.35
1993	63.22
1994	47.95
1995	93.73
1996	90.12
1997	57.59
1998	93.92
1999	61.61
2000	53.72
2001	59.72
2002	64.06
2003	66.64
2004	55.29
2005	77.89
2006	72.19
2007	50.27
2008	50.64
2009	51.23
2010	85.87
2011	56.88
2012	87.65
2013	22.79
2014	60.89
2015	50.78
2016	87.00
2017	77.17
2018	50.51
2019	69.37
2020	34.30
2021	50.32
2022	39.20
2023	65.79

Site Drainage, Runoff, and Erosion Control:

Whipsawasons, LLC is enrolled with the North Coast Regional Water Quality Control Board (NCRWQCB) for Tier 1 low risk coverage, and a Water Resources Protection Plan (WRPP) has been developed utilizing best management practices (BMP's) in accordance with the NCRWQCB's recommendations. The drainage and erosion control measures described below are referenced from the WRPP in Appendix E. A transition was made into the State Water Resource Control Board Order (SWRCB) as a tier 1 risk (WDID# 1_12CC403573.) and a Site Management Plan (SMP) was developed to replace the WRPP.

Site investigation for the development of the Site Management Plan showed no evidence of surface runoff associated with the cultivation, nor was there evidence that it had occurred in the past. This area has good vegetation ground cover consisting of native grasses with no evidence of leaching from cultivation related activities.

Erosion Control:

The Water Resource Protection Plan (WRPP) includes erosion and sediment control BMP's designed to prevent, contain, and reduce sources of sediment. The WRPP was developed by Natural Resources Management Corporation in 2017 and the corrective measures have been completed. The SMP done by Elevated Solutions also includes corrective actions to reduce sediment delivery, including stream crossing culvert maintenance and replacement and access road maintenance. Additionally, the WRPP and SMP requires mulch piles and spoils from any grading to be stored in a designated location away from watercourse. See the WRPP section titled *Best Management Practices for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities* in Appendix E for complete BMP recommendations and specifications. The Site management plan was developed and has the current erosion control plans defined. Please refer to the Site Management Plan (SMP) for additional information regarding site specific plan and the updated corrective measures for the 2021 season.

Watershed and Habitat Protection:

Adherence to the SMP ensures that the watershed and surrounding habitat are protected. The cultivation activities and associated structures are >100+ feet from the nearest watercourse, providing a suitable buffer between the cultivation operation and habitat. Additionally, site development and maintenance activities utilize BMP's in accordance with the SWRCB & NCRWQCB's recommendations. Any grading and earthwork activities will be conducted by a licensed contractor in accordance with approved grading permits and the SMP.

Annual inspections are completed to identify any the presents of invasive species. If identified action is taken to eliminate the risk of infestation or spread.

Please see that attached Bull Frog Management Plan as advised by the California Department of Fish and Wildlife.

Monitoring and Reporting:

Monitoring will be conducted to confirm the effectiveness of corrected measures listed in the SMP and determine if the site meets all Standard Conditions. Inspections will include photographic documentation of any controllable sediment discharge sites as identified on the site map. Visual inspection will occur at those locations on the site where pollutants or wastes, if uncontained, could be transported into receiving waters, and those locations where runoff from roads or developed areas drains into or towards surface water. The inspection will also document the progress of any plan element subject to a time schedule, or in the process of being implemented. A monitoring plan is included in the SMP with photo points identified on the SMP map.

Onsite monitoring shall occur:

Before and after any significant alteration or upgrade to a given stream crossing, road segment, or controllable sediment discharge site. Inspection should include photographic documentation, with photo records to be kept on site.

Prior to October 15 and December 15 to evaluate site preparedness for storm events and storm water runoff.

Following any rainfall event with an intensity of 3" precipitation in 24 hours. Precipitation data can be obtained from the National Weather Service by entering the site zip code at http://www.srh.noaa.gov/forecast.

Water Meters are installed on all water sources to monitor water use. Water use logs are updated monthly and are available on-site upon request.

Al Storage Tanks are inspected on a regular basis for links or faulty float valve.

A Monitoring and Reporting will be submitted on an annual. Monitoring reports will be send to SWRCB, CDFW and Humboldt County Planning.

Best Management Practices:

Best Management Practices (BMP's) are employed when storing, handling, mixing, application and disposal of all fertilizers, pesticides, and fungicides. All nutrients, pesticides and fungicides are storage in an 8'x20' SF storage container with secondary containment. Application rates will be tracked and reported with the end of the year monitoring report required in the Water Resources Protection Plan (WRPP) and Site Management Plan (SMP). Employees responsible for application are trained to handle, mix, apply or dispose of pesticides/fungicides with proper hand, eye body and respiratory protection in accordance with the manufacturer's recommendations. See the SMP for complete BMP specifications for the use and storage of regulated products.

California Department of Cannabis Control:

Whipsawasons, LLC currently has an Annual State License # CCL21-0002955.

Cal Fire:

The subject property is located within a State Responsibility Area (SRA) for fire protection. Several improvements are proposed in order to meet SRA requirements, including designating a fire turn-around and pull-out area for emergency vehicles, and management of trees and vegetation around existing structures to maintain the required 100-foot defensible space. All structures on the property meet the 30-foot SRA setback requirement from property lines. There is a 3000-gallon water storage tank designated for fire use marked with a blue reflector located by the well at the upper cultivation area. There is an existing on-site pond that can be used for additional fire repression in case of an energy.

PESTICIDE AND NUTRIENT MANAGEMENT

Fertilizers and pesticides are currently stored in an 8'x20' conex box with secondary that meets all requirements for secondary containment. Winterization and Erosion control measure are applied to prevent run off.

Signage is posted on the exterior of all structures after pesticides are applied with pesticide used and allowable reentry times.

Pesticide use logs are stored onsite and all personnel are trained on proper recording and management technics. The MSDS for all products is stored in the Pesticide use log and is available for all personnel. The Humboldt County Agriculture Department will be provided and updated of all Pesticide and Nutrient being used by Whipsawasons, LLC. Below is a list of all current products on site.

Pesticides:

Green Cleaner

Dr Zyme

Plant Therapy

Nutrients:

Organic Compost Tea

MaxSea

Fuels and Oils

Fuels and oils stored on-site will be storage in a secured storage shed near the residence. The applicant will register and follow all necessary requirements for CUPA.

Solid Waste Management:

Trash and recycling containers are located near the processing building in safe enclosed location. Solid waste and recycling are hauled off-site to the nearest transfer station at least once per week.

Cultivation Waste and Soil Management:

Cultivation Waste is chipped and composted onsite. Spent potting soil is stored in a contained area with environmental measures in place. Spent soil is cover during winter months and then amended in pots before the further use. All packaging from soil amendments and fertilizers will be collected and disposed at Redway Transfer Facility in Redway CA. All green cultivation waste is either composted to off hauled to Eel River Salvage and Disposal a license cannabis disposal company located in Fortuna California.

Wastewater Management:

There is a working septic system on-site located by the residence. The applicant will obtain a permit for the septic system upon approval. The septic is maintained as recommended every 2-5 years by Steve's Septic Service. There is also a portable toilet onsite that is serviced by Six Rivers Portable Toilet.

Soil Management Plan:
Cultivation occurs in a mixture of native soil and amenities. Soil is reused and amended as need in accordance with soil test results. Cover crops are planted after the cultivation season to assist in balancing to soil and to prevent runoff.

Cultivation Plan & Schedule:

Clones are purchased from a licensed nursery or propagated on site from 'mother plants' in the ancillary nursery area. Purchased clones are delivered by a licensed nursery and are placed in the ancillary nursery to harden off and grow until they reach the appropriate size and weather permits to plant in the flowering light deprivation hoop houses. Clone propagated on site from Mother plants. Mother plants remain in the vegetative stage under lights solely for propagation. Cuttings are taken from the mother plants and are rooted into a growing medium, typically oasis cubes, to produce 'clones.' The clones remain in the nursery until they are planted in their flowering greenhouses. The juvenile plants are irrigated using hand watering methods. The ancillary nursery uses deprivation tarps to prevent light pullulation.

Cultivation Cycle:

April-May: Clones grow in a vegetative state in the ancillary nursery until they are ready to be transplanted into flower greenhouses.

May-June: Plants are transplanted into beds of soil inside the greenhouse structures and remain in the grow stage until they reach 18"-24" in height.

July-August: Plants are forced into flower using light deprivation technics. Plants will remain in flower for 8-10 weeks.

August: Plants are harvested and replanting of the next cultivation cycles occurs. Plants for the second cultivation cycle are ready to be flowered as soon as replant occurs. Plants will be ready for harvest in 8-10 weeks from replant. Harvested flower from the first cultivation cycle is bucked down and prepared for transportation to processing.

September-October:
Harvest is completed on the second grow cycle. Once plants are removed from the greenhouses the tarps are removed from all greenhouse structures and beds are processed and planted with cover crops. Winterization of the property is completed, and cultivation operation are closed until the spring of the following year.

December-March: Monitoring occurs according to the SMP/WRPP.

Nursery Facility

The proposed 2,000 SF ancillary nursery area will be used to propagate plant stock for Whipsawasons, LLC. The ancillary nursery is equipped one intake and one exhaust fan. There are oscillating fans located on the walls to assure proper air flow and circulation. The use of artificial lighting is used to promote plant grow. The lights in the nursery are powered by the solar system to keep plants in a vegetive state when necessary. The International Dark Sky Standard is followed by pulling traps to block light pollution. Plants are grown in the ancillary nursery area until they are ready to station into the final flower greenhouse structures.

Irrigation Plan and Schedule:

Irrigation and fertigation of plants occurs using top-feed drip irrigation watering method. Whipsawasons, LLC maintains that irrigation and fertigation is more efficiently managed via drip watering that is monitored by daily inspection of each plant by the cultivator and tailored irrigation and nutrient application plan is designed for each greenhouse depending on plant need to prevent overwatering and run off. Monitoring reports reflect all watering/feeding schedules.

Processing/Distribution Plan:
Processing occurs off-site at a license processing facility. Once product has been processed it is transported back to the property and stored in the harvest storage area. Orders are manifested out to licensed distribution companies as they occur.

Noise Source assessment and Mitigation Plan:
Please see the attached 24-hour noise assessment.

Employee Plan:
Whipsawasons, LLC has three employees. Whipsawasons follows all employee labor law regulations, including worker comp insurance, liabilities insurance, training in sexual harassment and Cal-OSHA.

Employee Training and Safety:
The employees are trained on each aspect of the procedure including cultivation and harvesting techniques and use of pruning tools, proper application and storage of pesticides and fertilizers. Access to the onsite cultivation, drying and processing facilities is limited to authorized and trained staff. All employees are trained on proper safety procedure including fire safety; use of rubber gloves and respirators; proper hand washing guidelines, and protocol in the event of an emergency, Pesticide and Nutrient training is provided to each person using or exposed to these products. All employees will be required to complete a two-hour sexual harassment training course. The site manager will be trained in CPR and First Aid. Site manager and owner are required to complete the Private Applicator Certification (PAC) through the County of Humboldt Agriculture Department and a 30-hour

general industry training for Cal-Osha. A copy of these training records is available onsite upon request.

Parking Plan:
Parking is located by the non-cannabis residence.

Toilet and Handwashing Facilities:

Portable ADA compliant bathroom will be used until the on-site septic system can be permitted. Portable toilets will be located on a seasonal basis by the Metal Building and the residence.

Facility Security:

An entry gate to the property is located off Sunset Ridge Road approximately 25 yards off the road. The entry gates always remain locked and access to the cultivation area is limited exclusively to employees. Restricted access signs are posted conspicuously at the entry gates. Cameras are place throughout the road system, at cultivation areas, the drying building, and the residence. The cultivation and drying facility areas have low intensity motion sensor lighting All lighting is designed and located so that limited light exposure exists. The drying/cannabis storage facilities will include an alarm system.

Hours of Operation:

Activities associated with cultivation in the greenhouses (watering, transplanting, and harvesting) generally occur during daylight hours. All other activities such as processing typically occur no earlier than 6AM and extend no later than 8 PM.