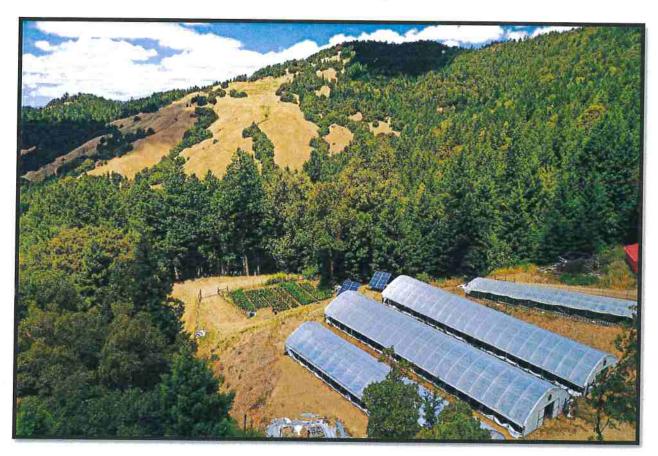
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# Cultivation and Operations Plan Benbow Valley Farms



Humboldt County Commercial Medical Cannabis Land Use Ordinance
APN 223-032-004 Reed Mountain Road

January 2020 (v2)

Submitted to:





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### **Preface**

This Cannabis Cultivation and Operations Plan (CCOP) is hereby submitted to comply with the California Emergency Regulations for Cannabis Cultivation (CERCC). Compliance is required by CalCannabis Cultivation Licensing which is a division of the California Department of Food and Agriculture (CDFA). The CCOP is required to be in compliance with CERCC Article 2 §8104 General Environmental Protection Measures, Article 2 §8105 Property Diagram, Article 2 §8106(a)(1) Cultivation Plan Requirements, and Article 4 Cultivation Site Requirements §8300 to §8308, as applicable. The following items within the CCOP are regulated by CDFA:

- A. Canopy area(s), including noncontiguous aggregate square footage.
- B. Area(s) outside of the canopy where only immature plants shall be maintained.
- C. Pesticide and other agricultural chemical storage area(s).
- D. On-site processing area(s).
- E. Designated on-site packaging area(s).
- F. Secured area(s) for cannabis waste.
- G. Composting area(s), if composting cannabis waste on site.
- H. Storage area(s) for harvested cannabis.
- I. Compliance with California Water Code §13149 policies for cannabis cultivation.
- J. Compliance with any conditions requested by the California Department of Fish and Wildlife (DFW) and the State Water Resources Control Board (SWCB).
- K. Dark Sky policies to avoid nighttime glare.
- L. Discovery of human remains policies as required by California Health and Safety Code §7050.5.
- M. Renewable energy requirements.
- N. Generators use requirements.

Further, Humboldt County requires a CCOP for a cannabis business permit under Humboldt County Code (HCC) Chapter 3 Division 1 Title III §313 55.4, known as the Commercial Medical Marijuana Land Use Ordinance (CMMLUO). The CMMLUO regulates compliance at the local governmental level to ensure that conditions required under state and local law, or those requested by any agency with jurisdiction, are implemented as proposed within the CCOP. Therefore, the purpose of this CCOP is to identify and outline the methods to be used to meet the minimum requirements for CDFA licensing, Humboldt County Planning and Building Department permitting, and any other local or state requirements.

### I. Project Location

Benbow Valley Farms is located south of Benbow on the southern aspect of Reed Mountain at the Humboldt County line (Figure 1). It is a one hundred sixty-six acre (166ac) homestead created in 1917 by President Woodrow Wilson. The general elevation of the parcel is two thousand four hundred feet (2,400') above sea level. The site is accessed via Highway 101 heading three and one-half miles (3.5mi) west on Reed Mountain Road.

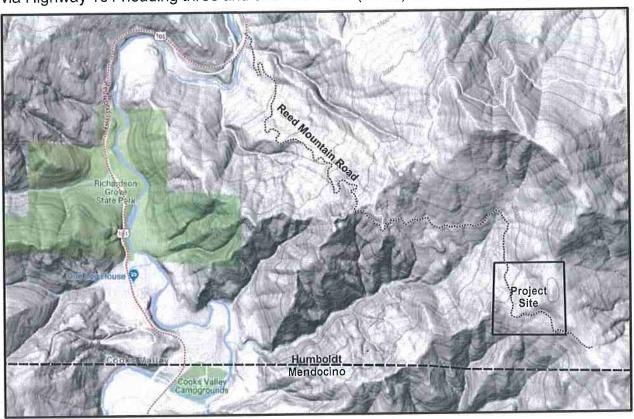


Figure 1: Project Location

# A. Zoning

The intent of Humboldt County Zoning Code is to implement the policies and elements of the Humboldt County General Plan. The Code is based upon Principle Zones and has further Combining Zones. All uses and development regulations of the Principal Zone apply in the Combining Zone, except, they are modified by the uses and regulations allowed within the Combining Zone regulations.

Benbow Valley Farms is generally Principally Zoned as Agriculture Exclusive (AE) with a Combining Zone with a Special Building Site of 5 Acres (B-5) on One Hundred Sixty Acres (160). Within the parcel there are also Principally Zoned areas of Timberland Production (TPZ). These zones determine overall development and allow the following:

# 1. Agriculture Exclusive

a. Principally Permitted: all agricultural uses, farm dwellings, windmills, greenhouses, silos, tank houses, barns and outbuildings, coops, drainage

facilities and structures, roadside agricultural sales, public stables, and other necessary or customary uses.

b. Uses with a Permit: animal or fur farms, feed lots, auction yards, animal or timber processing plants, irrigation equipment sales and storage, veterinarian hospitals, labor camps, or anything compatible but not enumerated within Zoning Code.

### 2. Timberland Production

- a. Principally Permitted: growing and harvesting timber, farm dwellings, windmills, greenhouses, silos, tank houses, barns and outbuildings, coops, drainage facilities and structures, roadside agricultural sales, public stables, and other necessary or customary uses.
- b. Uses with a Permit: watershed management, fish and wildlife management, roads, log landings, log storage areas, portable chipper and sawmill, utility transmission infrastructure, grazing and agricultural uses, single family dwelling, temporary labor camp, and public recreational use for profit.

### **B. Principally Permitted Uses**

Principally permitted uses in both zones are similar with the only difference of use is agricultural versus timber production. All agricultural uses found under Principally Permitted shall require a simple "Agricultural Exempt Permit". It shall be necessary to apply for such permitting using the Plot Plan and simple forms from the Humboldt County Building Department for the following items:

- 1. Home.
- 2. Greenhouses.
- 3. Water Tanks up to five thousand gallons (5,000gal).
- 4. Processing facilities (barns).
- 5. Storage sheds.

# C. Site Hydrology

The area of use on parcel is located on a flat ridge of Reed Mountain which drains to the Eel River watershed. The western and southern portion of the parcel flows in to the South Fork Eel River in both Humboldt and Mendocino County within Cook Valley. The parcel's eastern side is a gentle ridgeline which slopes towards the mainstem Eel River within Humboldt.

On the northwestern side a spring feeds an unnamed Class II Stream which flows into Milk Ranch Creek. The southern side of the parcel drains into Low Gap Creek within in Mendocino County. The cultivation site is clustered on flats at the two thousand four hundred feet (2,400') contour, located more than four hundred sixty feet (400') from any stream, and in areas of gentle slope.

Cultivation areas are contained within raised beds inside of greenhouses or planted directly into the ground with minimal soil infiltration occurring beyond the rootzone. Overall the parcel is less than fifteen percent (>15%) on the ridge to more than fifty percent (<50%) slope on the western side. As such, the environmental impact is minimal, and discharge of runoff to surface waters are low risk with proper implementation of control measures as identified within State Water Board Discharge requirements.

### D. Climate

Rain gauge records accessible via Western Regional Climate Center's (WRCC) are for Richardson Grove State Park (Figure 2). This gauge location provides a reasonable understanding of local climate as it is approximately at the same elevation and three and one-half miles (3.5mi) by air to the east of the project site. The area experiences sixty-eight inches (68") of rain annually on average, can see extreme precipitation as high as one hundred twenty-eight inches (128"), and as low as thirty inches (30") during a drought. Average temperature during the summer months of agricultural production is eighty-three degrees Fahrenheit (83°F) and can reach over one hundred degrees Fahrenheit (100°+F) during extreme heat conditions.

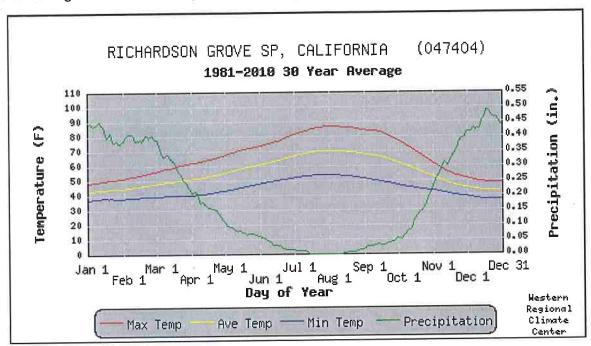


Figure 2: WRCC Richardson State Park Station Climate Data Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7404

### E. Fisheries

There are many Species of Concern within the project site, some of which have state and federal protection, including Threatened and Endangered Species status. Operations can have an impact to these species at any time due to noncompliance with environmental regulations. These species can be vegetation, aquatic lifeforms, and terrestrial wildlife including the Northern Spotted Owl (*Strix occidentalis caurina*).

Species of most concern regarding operations and direct impacts are salmon found within local rivers and streams (Figure 3). These species require clean, cool, and flowing river conditions to survive. Local fisheries which are dependent upon water quality for spawning and rearing include:

- 1. Fall-run California Coast Chinook salmon (Oncorhynchus tshawytscha)
- 2. Southern Oregon Northern California coho salmon (O. kisutch)
- 3. Winter-run and summer-run North California Coast steelhead (O. mykiss)

- 4. Resident rainbow trout (*O. mykiss*)
- 5. Anadromous coastal cutthroat trout (O. clarkii)
- 6. Pacific Lamprey (Entosphenus tridentatus)
- 7. Green sturgeon (Acipenser medirostris)

Operations can potentially have a direct impact upon the water quality of the Class II stream. This in turn affects the salmonid fishery of the Eel River. Impacts to the Eel River fishery can be created through a number of ways including:

- 1. Diversion during forbearance period which directly reduces in-stream flows and increase temperatures for juvenile rearing habitat.
- 2. Diversion rates higher than allowed which reduce instream flows needs for seasonal migration and spawning.
- 3. Infiltration of nutrients beyond the crop root zone into the stream which contribute to in-stream algae blooms and reduce dissolved oxygen levels.
- 4. Improper implementation of sediment and erosion control measures can result in increased water turbidity damaging fish gills and covering up spawning gravels.
- 5. Improper use and storage of hazardous materials which can cause environmental spills and contamination.

The impacts listed above are only a few of the way's operations can have a direct impact upon the environment. The fisheries in the area have evolved to a life cycle that is timed with the local water cycle of rain from late fall to early spring (Figure 4). Water use for seasonal cannabis operations are in direct opposition to the salmonid fishery life cycle which is protected by state and federal law.

Therefore, it shall be a primary concern that project operations minimize and mitigate impacts to the local environment. How this shall be accomplished is through the implementation of all requests made by the SWB or DFW. All requirements shall be adhered as found within permits, including discharge and water forbearance periods, development of environmentally responsive business policies and procedures, and regular monitoring with recording of on-site conditions.

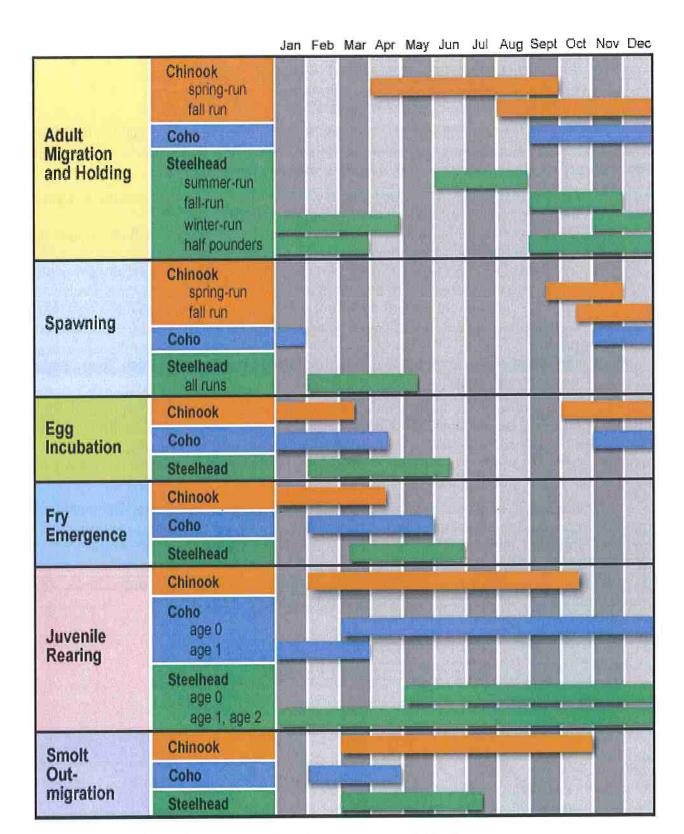


Figure 3: Northern California Salmon Life Cycle Calendar

Source: http://www.trrp.net/wordterrain/wp-content/uploads/2017/07/fishresources1.gif

### F. Historic Resources

The project site is located in the Benbow Valley area. This area was historically occupied by Eel River Athapaskans, specifically the Sinkyone Tribe, who were violently exterminated by settlers, and their lands taken through force. Many areas are historic with unknown sites of past activity including displacement, homicide, hunting or gathering, or other important tribal resources; including the parcel. Any and all tribal resources which may be found would come under the jurisdiction of the Bear River Tribe, a Federally Recognized Tribe, for the cataloging and preservation of historic resources.

### G. Utilities

The parcel lacks basic services for utilities as it is remote and commercial electrical or telephone services are not provided. On-site services for human sanitation need of septic for wastewater has been developed for the eastern processing facility and a perk test with permit submitted for the development of septic in the western processing facility. A well for potable water was drilled under permit in 2016 by Fisch Drilling, is one hundred sixty feet deep through an impermeable clay layer into the local sandstone aquifer, with water at seventy-three feet (73'), powered by a solar system, and yields twenty gallons per minute (20gpm).

### II. Past Cultivation

### A. Past Cultivation Area

A review of publicly available satellite imagery shows that the site was first used for cultivation in 2012 (Figure 4). Past cultivation can clearly be seen in Google Earth dated August 23, 2012. This site is at latitude 40° 0'32.40"N longitude123°44'13.50"W. These areas are located in both the AE-B-5(160) and TPZ zones.

Within a few years the cultivation area was expanded according to TerraServer imagery dated June 9, 2015 which confirms there were five (5) cultivation sites (Figure 5). Overall, total cultivation equaled fifty-five thousand one hundred sixty square feet (55,860'2). This area was further divided out to forty-seven thousand seven hundred square feet (47,700'2) outdoor cultivation and mixed light was eight thousand one hundred sixty square feet (8,160'2) as follows:

- Site #1 = Twenty-eight thousand square feet (28,000'2) outdoor
- Site #1 = Two thousand six hundred square feet (2,600'2) mixed light
- Site #2 = Seven thousand two hundred square feet (7,200'2) outdoor
- Site #3 = Seven thousand three hundred square feet (7,300'2) outdoor
- Site #4 = Five thousand seven hundred sixty square feet (5,760'2) mixed light
- Site #5 = Five thousand two hundred square feet (5,200'2) outdoor

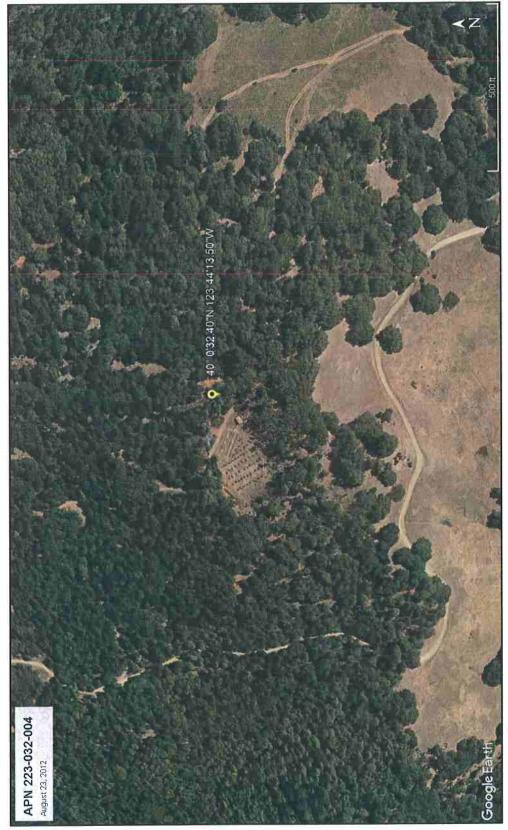


Figure 4: 1st Year of Cultivation 2012

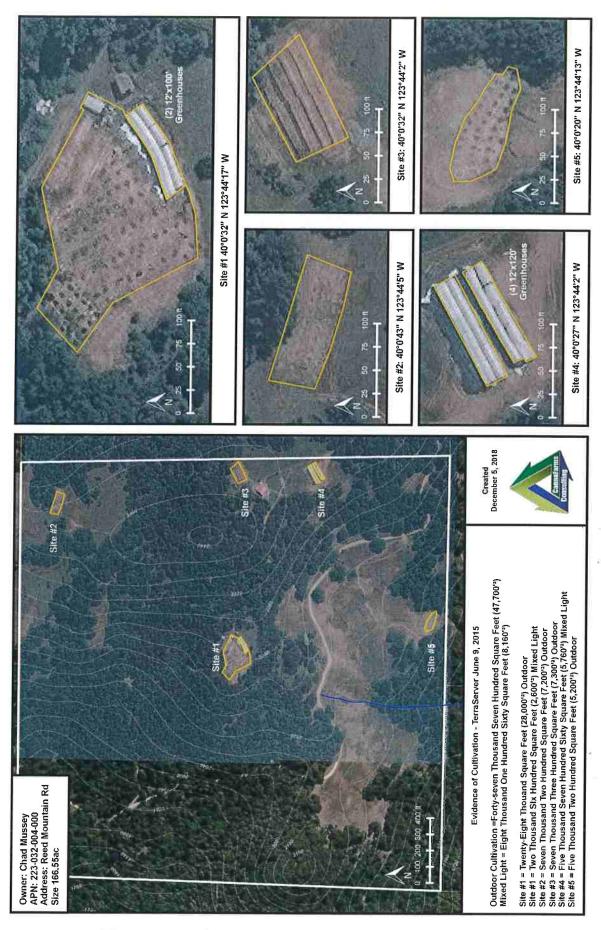


Figure 5: Evidence of Past Cultivation June 9, 2015

### B. Water Source

Cultivation has been undertaken in the past on the parcel utilizing a combination of seep springs, developed rain catchment ponds, and a well. The first year of cultivation in 2012 used a spring located longitude 40°0'36" N and latitude 123°44'20" W (Figure 6). This diversion was undertaken without a water right or appropriation submitted to the SWCB Division of Water Rights (DWR) nor was a §1602 Notification of Lake or Stream Alteration (§1602 LSA) to DFW.



Figure 6: 2012 Water Source

By 2014 a seep spring was developed into a pond for the five thousand two hundred square feet (5,200<sup>12</sup>) outdoor cultivation area at Site #5 (Figure 7). Sometime in 2015 to 2016 two more ponds were developed to capture rainwater and spring water along with the installation of a permitted well (Figure 8). The development of the ponds with tree removal was undertaken without a water right or appropriation submitted to DWR, nor was a §1602 LSA to DFW, neither was a CalFire Less Than 3 Acre Conversion Exemption or Humboldt County 314-61.1 Streamside Management Area Ordinance (SMA) permit.

The capacity of the ponds from North to South are unknown, although, the maximum surface area according to GIS is approximately:

- 1. Eleven thousand square feet (11,000'2).
- 2. Nine thousand five hundred square feet (9,500'2).
- 3. Nine thousand square feet (9,000'2).

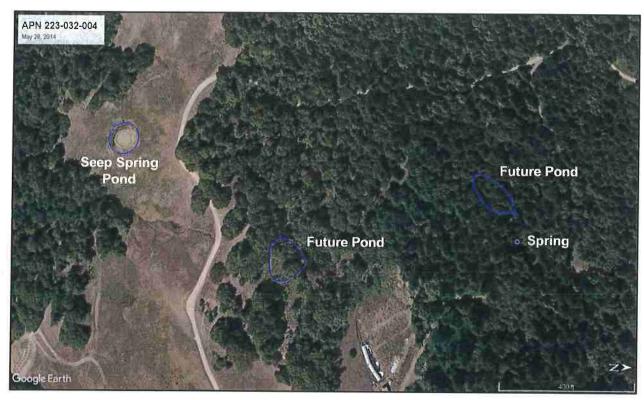


Figure 7: 2014 Water Source



Figure 8: 2018 Water Source

### III. Operations Plan

The following Cultivation and Operations Plan is to identify and outline the methods to be used to meet the minimum requirements for CDFA licensing, Humboldt County Planning and Building Department permitting, and any other local or state requirements related to cannabis production. These methods shall be requirements of maintaining compliance with local and state regulatory agencies. Strict adherence to development and implementation of the project site as stated shall be of the utmost importance.

### A. Implementation Schedule

Implementation of this project shall be ongoing to maintain compliance with ever changing regulations from numerous agencies, including but not limited to, the County of Humboldt and the State of California. Fully meeting compliance with State laws is dependent upon a Humboldt County Cannabis Permit before any construction can occur under a Building Permit. The SWB Discharge Permit 1\_12CC417656 issued September 6, 2019 has a five (5) year deadlines to meet compliance.

The intent is to complete compliance requirements within two-(2) years once a Humboldt County Cannabis Permit has been issued (Figure 1). Implementation shall occur during allowed construction and operational season under a six-month (6mo) Building Permit. There are different schedules allowed for construction related activities, which the State begins on April 1 with winterization November 15, whereas the County season starts April 15 with winterization by October 15.

All construction related activities shall be implemented under a Building Permit. Construction to meet compliance shall occur between April 15 and October 15. Compliance shall be undertaken immediately upon receipt of the Cannabis Permit and are scheduled to be completed within two (2) years.

	Table 1: Compliance Schedule				
Permit/License	Agency	Number(s)	Start	Compliance Schedule	Deadline
Discharge Permit	CA SWB	1B161115CHUM	3/16/2018	Apr 1 to Nov 15	Superseded 8/13/2020
Discharge Permit	CA SWB	1_12CC417656	9/6/2019	Apr 1 to Nov 15	9/6/2024
1600 LSA	CA DFW	TBD	Not Issued	Apr 1 to Nov 15	TBD
Well	Humboldt DEH	15/16-0655	Completed 4/25/2016	Monthly Recorded Metering	SWB Reporting
Small Irrigation Use Registration	CA DWR	Reg H505082	12/17/2018	Annual	SWB Reporting
Interim Cannabis Permit	Humboldt Planning	11802	2/6/2018	Annual	Active
Temporary License	CDFA CalCannabis	TCA18-0016595 TCA18-0016601 TCA18-0016604 TCA18-0016609	12/01/2018	Temporary	Inactive
Temporary License	CDFA CalCannabis	LCA19-0002282 LCA19-0002285 LCA19-0002294 LCA19-0002297	04/08/2019	Temporary	Inactive
Provisional License	CDFA CalCannabis	CCL19-0002282 CCL19-0002285 CCL19-0002294 CCL19-0002297	09/26/2019	Annual	Active 09/26/2020
Cannabis Permit & CEQA	Humboldt Planning	TBD	TBD	2 Years	TBD
Building, Electrical, Septic, Grading, Ag Exempt, & AOB	Humboldt Building	TDB	Dependent upon Cannabis Permit	Construction April 15 to Oct 15	Awaiting Cannabis Permit Within 2yr
Septic Permit	Humboldt Department of Environmental Health	TDB	Dependent upon Cannabis Permit	Completed	Awaiting Cannabis Permit

# B. Discovery of Human Remains or Archeological Resources

California Health and Safety Code §7050.5 requires operations to cease in the advent of the discovery of human remains. Further, Humboldt County requires cessation of activities should archeological resources be inadvertently found. There are potential to find such remains or resources due to the history of the area. Disturbance without notification, with intent to possess or to maliciously destroy such items, carries the weight of the law, including and not limited to, felony charges.

# The following actions shall immediately occur upon the discovery of human remains or archeological resources:

### 1. Human Remains

- a. Operations shall immediately cease in the advent of the discovery of human remains.
- b. The Humboldt County Sherriff Department shall be notified at (707) 445-7251.
- c. The Humboldt County Coroner shall be notified at (707) 445-7242.
- d. The Bear River Tribal Heritage Preservation Office shall be notified at (707) 733-1900.
- e. The Humboldt County Planning Department shall be notified at (707) 445-7541.

### 2. Archeological Resources

- a. Operations shall immediately cease in the advent of the discovery of archeological resources, including but not limited to:
  - i. Obsidian or chert tools such as arrowheads, axes, knives, or spears.
  - ii. Obsidian or chert flakes.
  - iii. Stone tools.
  - iv. Groundstone artifacts.
  - v. Locally darkened midden soils.
- b. The Bear River Tribal Heritage Preservation Office shall be notified at (707) 733-1900.
- c. The Humboldt County Planning Department shall be notified at (707) 445-7541.

# The following has been surveyed:

1. In December 2018 Archaeological Research and Supply Company performed an Archeological Survey of approximately 75% of the parcel which found "This project will not have an affect on significant historic resources" (pg 3).

# C. Agricultural Employer

Benbow Valley Farms shall be an is an "agricultural employer", as defined in the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5

commencing with §1140) of Division 2 of the Labor Code, to the extent not prohibited by law. On site-housing shall not be provided to agricultural employees.

The farm shall be owner operated employing persons for hire as allowable by law.

- 1. The owner and his wife shall be managing the daily operations of the farm.
- 2. There shall be two (2) full-time employees.
- 3. Up to three (3) temporary part-time employees may be hired as seasonally required for planting, harvesting, or processing.
- 4. If ever over 20 employees are hired, they shall be allowed to unionize and negotiate a Labor Peace Agreement according to MCRSA §19322(a)(6).

Farm operations shall 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, Americans with Disabilities Act (ADA), and the Humboldt County Code (including the Building Code). At all times, employees shall have access to safe drinking water, toilets, and handwashing facilities that comply with all applicable federal, state, and local laws and regulations.

Operations shall implement safety protocols to protect health and safety, property, and the environment through adequate planning and training relevant to specific operations including, and not limited to, the following:

- 1. *Track & Trace with training* in accordance with the policies of County of Humboldt and State of California.
- 2. **Private Applicator Certification** shall be undertaken with the Humboldt County Agricultural Commissioner.
- 3. Potable water shall be provided by the on-site well.
- 4. Human wastewater shall be managed by on-site permitted septic systems.
- 5. Equipment required for the safe handling of cannabis shall readily be available on-site at all times.
  - a. All personal equipment shall meet all local and state requirements while being OSHA compliant.
  - b. OSHA certified safety glasses (tinted and clear), hats, disposable and reusable gloves, disposable face masks, and filtered respiratory protection shall be on-site and used as required.
  - c. Training in the use of personal protective equipment shall be undertaken on an annual basis.
- Standard Operating Procedures shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable County of Humboldt and State of California regulations. Additionally, this plan shall incorporate:
  - a. Policies concerning CPR & 1<sup>st</sup> Aid shall be developed and implemented.
     i. 1<sup>st</sup> Aid Station(s) shall be provided on-site.
  - b. Fire prevention meeting CalFire Fire Safe standards shall be incorporated and implemented.

- i. A minimum of five thousand-gallons (5,000gal) of water shall be dedicated for CalFire Fire Safe purposes and not connected to the Cultivation Area.
- ii. A minimum of two (2) dry chemical fire extinguishers shall be maintained and certified on an annual basis with a twenty-pound (20lb) capacity in easily accessible locations.
- 7. **Transportation Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all County of Humboldt and State of California regulations;
- 8. **Receiving and Inventory Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable County of Humboldt and State of California regulations.
- 9. **Processing and Packaging Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable County of Humboldt and State of California regulations.
- 10. **Security Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable County of Humboldt and State of California regulations.
- 11. **Pesticide Management Plan** shall be developed with training for **Private Applicator Certification**, and a written copy of the plan and certification shall be on premises at all times in accordance with all applicable Humboldt County and State of California regulations.

# D. Employee Safety Practices

Farm operations and processing operations shall implement safety protocols to protect the health and safety of its employees. ADA compliant processing facility, restroom, and parking shall be provided. All employees shall be provided with adequate safety training relevant to their specific job functions, which may include:

- Emergency action response planning.
  - a. Managers shall be trained and certified in basic CPR & 1st Aid.
  - b. CPR& 1st Aid Kit Stations shall be provided within the cultivation areas, bathroom, and drying facility.
  - c. Employees with known allergies that could be a health concern in an agricultural setting shall inform management, and if require an EpiPen, shall carry said provisions with them at all times while on-site.
  - d. If feasible, a working phone connection or emergency call button connected to a monitored security system shall be put into use.
  - e. Emergency call buttons, depending on circumstances, may or may not be placed within the greenhouses and processing facility.
  - f. Employees shall be provided with handheld communication devices with a secure channel for on-site use.
- 2. Employee accident reporting and investigation policies.
  - a. All accidents shall be reported to management.

- b. Management shall investigate and keep written reports of accidents.
- c. If required, the employee shall be immediately sent to medical services for assistance, and written records kept on file.
- d. Reporting to authorities shall be according to the requirements of law.
- 3. Fire prevention.
  - a. CalFire Fire Safe regulations (Title 14 Code of California Regulations: Division 1.5, Chapter 7, Subchapter 2, Articles 1-5) shall be met.
  - b. Processing facilities shall meet F-1 Occupancy standards.
  - c. Climatized greenhouses or finished agricultural building with insulation, heating, or air conditioning shall meet U Occupancy standards.
  - d. All employees shall be trained with fire safe methods and in the proper use of fire extinguishers.
  - e. Fire extinguishers shall be available in the cultivation areas and drying facility in the advent of an emergency.
  - f. Fire extinguishers shall be maintained and certified on an annual basis.
  - g. The dedicated water storage tank and nipple shall be inspected on an annual basis to ensure viability.
- 4. Hazard communication policies, including maintenance of material safety data sheets (MSDS).
  - a. Employees shall be trained in the proper handling of all hazardous materials, if any are ever used.
  - b. Employees shall be provided secure communication devices for communication and emergencies.
  - c. MSDS of any applicable hazardous materials shall be posted visibly on-site at all times.
- 5. Materials handling policies.
  - a. Employees shall be trained on handling cannabis and other related materials on an annual basis.
- 6. Job hazard analyses.
  - a. Employees may be exposed to agricultural related risks and informed of such.
  - b. Within the first year of operations on-site risks shall be assessed by an independent expert to reduce job hazards within a risk management plan to ensure OSHA compliance.
  - c. The risk management plan shall be implemented to reduce identified issues.
- 7. Personal protective equipment policies; including respiratory protection.
  - a. Bear Butte Farms shall provide personal safety equipment for use such as OSHA certified safety glasses (tinted and clear), hardhats, disposable and reusable gloves, disposable face masks, and filtered respiratory protection.
  - b. Employees shall be trained in the use, expected to make use, and have ample access to personal protective equipment provided by Bear Butte Farms.

c. Storage areas for personal safety equipment shall be provided.

### E. Emergency Contacts

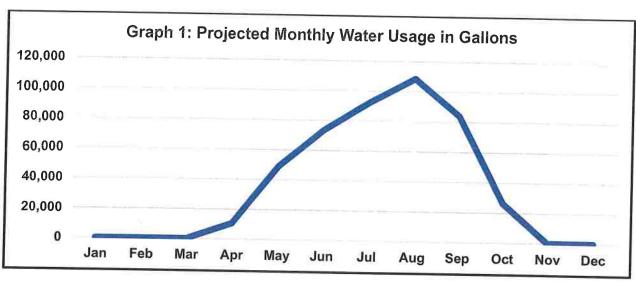
The Humboldt Cure operations and processing facilities shall visibly post and maintain an emergency contact list which includes at a minimum:

- Operation manager contact(s):
  - a. Owner: Chad Mussey (707)223-3377
- 2. Emergency responder contact(s):
  - a. EMERGENCY CALL 911
  - b. Nonemergency Sheriff: (707) 445-7251
  - c. Garberville Volunteer Fire Department: (707)923-3196
  - d. City Ambulance: (707) 445-4907
- 3. Poison control contact(s):
  - a. EMERGENCY CALL 911
  - b. Poison Control Centers 1-800-222-1222

### F. Schedule of Operations

Operations shall follow a fairly consistent annual set schedule of events (Table 1). Record keeping of past water use through meters was not undertaken. Therefore, water use has been conservatively estimated to peak in August at three thousand five hundred thousand gallons per day (3,500gal/day). Total estimated water use for operations are approximately four hundred twenty thousand gallons (420,000gal) per year, utilizing hand watering an agronomic rate just after sunrise and/or sunset, and based upon seasonal tapering of need (Figure 9).

Active Months	Both Vegetation	Outdoor Flowering	Mixed Light Flowering	Both Harvests	ule of Activities  Both Drying	Projected Water Usage
Jan						0gaì
Feb						0gal
Mar						0gal
Apr	ML Planted					10,500gal
May	ML OD Planted		Mid-May			48,825gal
Jun	OD		First			73,500gal
Jul	OD		Cycle	ML	ML	92,225gal
Aug	OD ML Planted	Variable				108,500gal
Sept		Strain	Second	OD	OD	84,000gal
Oct		Dependent	Cycle	ML & OD	ML & OD	26,250gal
Nov		·				0gal
Dec						0gal
Totals	5 Months	2 to 3 Months	5 Months	3 Harvests	3 Months	417,550gal



Graph 1: Projected Monthly Water Use

### G. Water Source Plan

Past operations were dependent upon diversion from a spring into a seep pond. This spring fed an unnamed Class II stream which flowed into Milk Ranch Creek and the South Fork Eel River and was diverted into the northwestern pond. The unpermitted spring diversion was utilized since 2012 in the northernmost pond and on December 17, 2018 was registered with DWR Registration H505082 Small Use Irrigation Registration.

On June 13, 2016 Fisch Drilling successfully installed a one hundred sixty feet (160') deep well under HCDHHS Permit #15/16-0655 and registered under DWR WCR2016-003934. The well is located at 40.0554274° Latitude and -123.7908819° provides twenty gallons per minute (20GPM). This water is struck at a depth of seventy-three feet (73') under a brown clay cap, within brown/blue sandstone, and has a drawdown of ninety-seven feet (97'). Power is provided during the day by a solar panel.

Since 2016 the well has provided irrigation water for cultivation. The use of the spring and ponds were registered as required due to past use. Though the intent of the project is to continue using the well into the foreseeable future instead of the spring and ponds as in the past. The SWB Site Management Plan further identifies the replacement of a few culverts to allow nature flow of the seep spring to continue down a natural watercourse.

# The project SHALL NOT utilize the Spring and Ponds:

- 1. Spring Diversion shall require the installation of several eighteen-inch culverts as identified within the SWB Site Management Plan to allow natural flow back into its streambed.
- 2. The ponds shall be used for livestock, aesthetics, and wildlife purposes.

# The project SHALL utilize the Well:

- 1. The well which is not hydraulically connected to surface waters.
  - a. Installed by Fisch Drilling under Humboldt County Permit #15/16-0655 at 40°0'33" N by 123°44'6" W.

b. The well is one hundred sixty feet (160') deep, through a sixty feet (60') clay layer that begins at thirteen feet (13') from the surface, water is at seventy-three feet within sandstone bedrock continuing eighty-seven feet (87') down, and has an output of twenty gallons per minute (20gpm).

# The following are compliance requirements for Water Use:

- 1. State Water Board compliance with all measures identified within the Site Management Plan shall be implemented.
  - a. Installation of several eighteen-inch (18") culverts to realign the spring flow.
  - b. Installation of a Spring Diversion Box with Gauge and Shut-off Valve which shall be monitored and recorded on a monthly basis to prove non-irrigational use.
  - c. Installation of a Water Meter on the Well which shall be monitored and recorded on a monthly basis with a copy kept on premises at all times.
  - d. Installation of Water Meter on the Outlet of the Water Tanks which shall be monitored and recorded on a monthly basis with a copy kept on premises at all times.
  - e. Irrigation water shall be used at an agronomic rate consistent with the Site Management Plan.
- Standard Operating Procedures shall be developed, implemented, and a written copy on premises at all times in accordance with all State of California regulations.

### H. Pond Plan

The ponds developed in the past were deemed safe by SHN Engineering on April 4, 2019 through a Geologic Evaluation of the lining and embankments to determine the future risk failure while providing recommendations as appropriate. Their determination was that the ponds were appropriately built by a licensed contractor with a thorough understanding of pond construction, meeting industry standards, and have low potential for environmental impacts. The intent of the ponds include livestock, esthetic, and wildlife uses and shall not be used for cultivation.

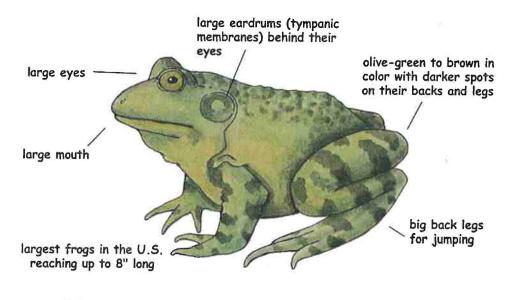
Within Humboldt county, the invasive American bullfrog (*Lithobates catesbeianus or Rana catesbeiana*), and they have the potential to impact local wildlife. They are a non-native invasive amphibious frog species with an olive green back, sides blotched with brownish markings, a whitish belly spotted with yellow or grey, upper bright green lip, and yellow or white throat (Figure 9). The species inhabits permanent freshwater ponds and is usually found along the water's edge. Bullfrog tadpoles are green to yellow in color with small, dark spots on their backs, and can grow up to 6 inches in length (Figure 10). Bullfrogs have a distinctive croak, which is an indicator of an invasion, and can be heard here: <a href="https://www.youtube.com/watch?v=wbXltUDliuo">https://www.youtube.com/watch?v=wbXltUDliuo</a>

Bullfrogs have voracious appetites and will eat anything they can fit into their mouths including native species such as birds, bats, rodents, frogs, salamanders, lizards,

snakes, and turtles. Bullfrog tadpoles mainly eat algae, aquatic plant material, and invertebrates, but they will also eat the tadpoles of other frog species. As a result of these feeding behaviors, at all life stages bullfrogs' prey upon and are able to out-compete native species. They are also a known carrier of chytrid fungus which causes a potentially fatal skin disease in native amphibians called chytridiomycosis.

# American Bullfrog

Rana catesbeiana



www.exploringnature.org

OSheri Amsel

Figure 9: Bullfrog Example

Source: https://www.exploringnature.org/graphics/color\_diagram/bullfrog\_diagram.jpg



Figure 10: Bullfrog Tadpole Example

Source: http://www.californiaherps.com/frogs/images/lcatesbeianusocja1013.jpg

The life cycle of the bullfrog and their invasion can be interrupted by draining the ponds every two (2) years to dry out eggs and tadpoles (Figure 11). Bullfrogs begin its life cycle as an egg laid in tiny jelly-like mass with a ten thousand (10,000) to twenty thousand (20,000) brood. Within eight (8) days of being laid the eggs hatch and live as tadpoles with gills and tails for the two (2) weeks. It will take three (3) years for froglets to mature before they can mate and lays eggs to once begin the cycle.

# The following are compliance requirements for the Water Sources:

- 1. Invasive Species Management Plan shall be prepared by a Qualified Biologist for all ponds with a copy kept on premises at all times.
  - a. The plan shall include, at a minimum, an annual survey for bullfrogs and other invasive aquatic species. If bullfrogs or other invasive aquatic species are identified, eradication measures shall be implemented under the direction of a Qualified Biologist qualified biologist, if appropriate, after consultation with DFW (Fish and Game Code §6400). Eradication methods can be direct or indirect. Direct methods may include hand-held dip net, hook and line, lights, spears, gigs, or fish tackle under a fishing license (Fish and Game Code §6855). An indirect method may involve seasonally timed complete dewatering and a drying period of the off-stream storage facility under a Permit to Destroy Harmful Species (Fish and Game Code §5501) issued by DFW.

# It will take three years before the froglet will reach maturity and the cycle starts all over again! At twelve to fourteen weeks the tail disappears and the tiny froglet is ready to leave the water. The eggs or frogspawn are surrounded by jelly. A clump of frogspawn can contain up to 4,000 eggs. Ten to eleven weeks and the front legs have also appeared. After about 10 days a tadpole wriggles out of each egg.

Lifecycle of the Common Frog

### Lifecycle Series

At first it uses its gills to breathe, but after five weeks, the tadpole develops lungs and has to swim to the top of the water to breathe air.

After eight weeks the back legs have

# Figure 11: Bullfrog Life Cycle

Source: https://www.naturesigndesign.co.uk/wp-content/uploads/2015/01/Sign Frog Lifecycle1.jpg

### I. Water Storage Plan

It is estimate that the project shall use approximately four hundred twenty thousand gallons (420,000gal) of water for cultivation. A total of sixty-five thousand gallons (65,000gal) of hard poly water storage tanks has been developed on the parcel to support cultivation and firefighting purposes. This amount of storage has been found to be sufficient to meet operational needs with solar power and should reduce potential drawdown on groundwater sources.

# The project shall utilize the following minimum Water Storage:

- 1. Thirty-one (31) hard poly tanks totaling sixty-five thousand gallons (65,000gal) of hard poly water storage tanks.
  - a. Twenty-nine (29) five thousand gallon (5,000gal) hard poly water storage tanks totaling one hundred forty thousand five hundred gallons (140,500gal) shall be for cultivation.
  - b. Two (2) five thousand gallon (5,000gal) hard poly water storage tanks totaling ten thousand gallons (10,000gal) shall be for dedicated fire suppression.

# The following are compliance requirements for Water Storage:

- 1. **Agricultural Exempt Permits** shall be submitted to the Humboldt County Building Department for the water storage tanks.
- 2. State Water Board compliance with all measures identified within the *Site Management Plan shall be implemented.* 
  - a. Installation of a Water Meter on the Well which shall be monitored and recorded on a monthly basis with a copy kept on premises at all times.
  - b. Installation of Water Meter on the Outlet of the Water Tanks which shall be monitored and recorded on a monthly basis with a copy kept on premises at all times.
  - c. Irrigation water shall be used at an agronomic rate consistent with the WRRP.
- 3. Three (3) five thousand-gallons (5,000gal) tanks of water shall be dedicated for CalFire Fire Safe purposes and not connected to the Cultivation Area.
  - a. Three inch (3") reflectorized blue dot shall be installed on an address sign upon the gates.
  - b. Three inch (3") reflectorized blue dot shall be installed upon the fire suppression tanks or fire hydrant.
  - c. A two and one-half inch (2½") or four and one-half inch(4½") N.H. male fitting for a fire house connection shall be made available on the fire water storage tank or a remote fire hydrant connection with said fitting at least eighteen inches (18") above grade
  - d. The placement of a tank with a hose fitting or a fire hydrant connection shall be between four feet (4') and twelve feet (12') from the roadway.
  - e. Tank and fire hydrant placement shall be at least fifty (50') from buildings.

f. Tank and fire hydrant placement shall be at least eight feet (8') from

vegetation.

g. Fire suppression tanks shall be monitored for water level, topped off on a monthly basis if necessary, and a direct connection to the well with shut-off valve provided.

h. All fire hydrant connections shall be maintained for proper fit and function.

4. Standard Operating Procedures shall be developed, implemented, and a written copy on premises at all times in accordance with all State of California regulations.

### J. Roads

Operations shall require roads are suitable for commercial agricultural use. Roads have many overlapping regulations and agency jurisdiction, including but not limited to, the County, CalFire, DFW, and SWB. Improvements identified within the Road Evaluation(s), DFW 1600 LSA, and Site Management Plan shall need to be implemented while meeting Humboldt County Code and CalFire SRA requirements.

CalFire and Humboldt Code prefer a Category 4 Road Standard which is twenty feet (20') wide, two (2) lane, on a slope less than sixteen percent (>16%), inside curve radius of fifty feet (50'), and forty feet (40') radius turnarounds or forty feet (40') Slip-T turnarounds. Should the physical landscape not allow for a Category 4 Road then minimums standard Humboldt County and CalFire allows are fourteen feet (14') wide with turnouts every four hundred feet (400') on a slope less than sixteen percent (>16%). Onsite parking shall be required to occur in dedicated off-street locations to keep roadways clear at all times for emergency vehicle access.

# The project shall meet the following for Roads:

1. Reed Mountain Road shall meet functional Category 4 Road Standards.

2. All driveways shall meet Category 2 Road Standards.

3. Any ROW entrances shall be to code requirements for approach and departure.

4. Two (2) dedicated ADA off-street parking stalls shall be twenty feet by twenty feet (20'x20') on pads with two percent or less (<2%) slopes.

- 5. Standard off-street parking stalls shall measure ten feet by twenty feet (10'x20').
- 6. The property shall be addressed and the number posted on the driveways.

7. Gates shall have a three inch (3") red reflector on both sides.

8. Emergency vehicle turnarounds shall be marked with white reflectors and remain clear at all times.

# The following are compliance requirements for the Roads:

1. The road and driveway shall meet the most environmentally superior recommendation stated within the Road Evaluation performed either by

- Whitchurch Engineering on March 25, 2019 or DTN Engineering on May 23, 2019 as required by the County.
- 2. DFW §1600 LSA requirements shall be implemented with the replacement of three (3) culverts and continued maintenance.
- 3. State Water Board compliance with all measures identified within the Site Management Plan shall be implemented.
- 4. Should it be required to grade over fifty yards (<50yd) of material <u>OR</u> grade on a slope greater than fifteen percent (<15%) then the following applies:
  - a. Grading plan which shall be designed by a licensed and qualified engineer.
  - Grading permit which shall be submitted to the Humboldt County Building Department.
  - c. Road construction shall be undertaken by a licensed and qualified contractor between April 15 to October 31.
- 5. *Transportation Plan* shall be developed, implemented, and a written copy on premises at all times in accordance with all State of California regulations;
  - a. Shall incorporate a road maintenance plan to maintain compliance with road standards required by Humboldt County, CalFire, DFW, and SWB.

### K. Power Plan

Operations shall be powered by a majority of Tier 4 Generators and solar panels. A small number of solar panels are utilized during the day to run the well pump and numerous fans. Two (2) Tier 4 Generators totaling one hundred forty-five kilowatts (145kW) consisting of a one hundred kilowatt (100kW) forty-five kilowatt (45kW) shall provide power to fans, nursery lighting, processing facilities, and other connections.

# The following are compliance requirements for Power:

1. Electrical Permit shall be submitted to the Humboldt County Building Department by a Licensed Electrician who shall install the generators, switch box, conduit, and outlets to be utilized by commercial operations.

# L. 'Soils and Compost Plan

Protection from overuse of inputs and reuse of these soils shall be a key component of operations to minimize overall costs and reduce likelihood of environmental spill. All farming shall use certified organic materials with mixing, tilling, or amending of soils occurring within raised beds, containers, in ground, or compost pile. All fertilizers shall be storage in designated areas as recommended by the manufacturer.

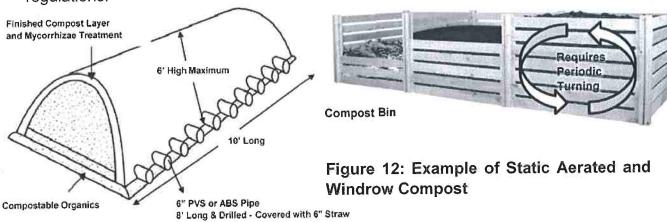
Soils shall be reused, composted in a secure area with chipped cannabis waste, and no dumping off-site shall occur. Cover crops hall be utilized when not in cultivation for a month or more to reduce soils loss. Straw and other erosion control methods shall be placed on the ground surrounding the cultivation areas.

Benbow Valley Farms recognizes the benefits of water conservation and soils management to their business, community, watershed, and fishery. Environmentally friendly good neighbor policies shall be developed and implemented. These include:

- 1. A nitrogen plan shall be developed and implemented to prevent subsurface nutrient release with the assistance of a licensed soil scientist.
- 2. All cultivation shall utilize agricultural soils in raised beds and within the ground utilizing permaculture methods.
- 3. All bare soils shall be covered soils with straw, ground cloth, or cover crop such as clover.
- 4. Operations shall be metered as required by the State Water Board.
- 5. Operations shall utilize drip irrigation controlled by a timer.
- 6. A detailed monthly schedule of watering activities shall be developed and conspicuously posted on-site.
- 7. Soils and vegetated matter shall be reused, composted on-site, and no dumping off-site shall occur.
- 8. Composting shall consist of a dedicated area and vegetated matter shall be chipped into an inconsumable humic mix.
- 9. Other methods of soil and plant moisture analysis may be implemented including the use of independent soil diagnosis, hygrometers, infrared cameras, and computerized sensors.

The State of California and Humboldt County require that the project be in compliance with the California Integrated Waste Management Act through the use of a Cannabis Waste Management Plan. All organic and solid wastes shall be collected and disposed of properly on or off site as allowed by law. Due to project site remoteness the waste plan shall focus on self-haul of solid waste and recycling. Cannabis waste shall be securely disposed on-site by composting within a static aerated or windrow compost pile and when finished mixed back into cultivation soils (Figure 12).

All cannabis waste shall be stored in a secure waste receptacle, or secured area, and disposed of in accordance with local and state regulations, CERCC, and CWMP. Public access to the designated cannabis waste receptacle or area shall be strictly prohibited. All commercial solid waste shall be stored separately from cannabis waste in disposal bins secure from wildlife and watershed discharge, divided out from trash and recyclables, and disposed in accordance local and state regulations, CERCC, and CWMP. All hazardous waste regulated by the Integrated Pest Management Plan shall be dispose of properly utilizing protocols within that plan in compliance with all local and state regulations.



# The following are compliance requirements for Soils:

- 1. Installation and utilization of a Static Aerated Compost Pile and/or Windrow Compost.
- 2. State Water Board compliance with all measures identified within the *Site Management Plan* shall be implemented.
- 3. Fertilizers stored in designated areas and maintained per manufacturer recommendations.
- 4. **Cannabis Waste Management Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable Humboldt County and State of California regulations.
- Standard Operating Procedures shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.

### M. Remediation Plan

Operations will require consolidation of past open cultivation into greenhouses, undertaking an onsite relocation and remediation, and a temporarily decommission for a future RRR.

The on-site relocation is the southern cultivation area consisting of two (2) twenty feet by ninety-eight feet (20' x 98') greenhouses outdoor DEP equal to five thousand two hundred square feet (5,200'2). This site is on steep slopes draining into Low Gap Creek at Cooks Valley in Mendocino County and was identified by Timberland Resource Consultants (TRC) as requiring remediation to meet SWB discharge requirements. TRC provided a remediation plan for requiring the removal of cultivation related materials and revegetation with native grass seed. This cultivation shall be moved to the AE-B-5(160) zone.

On the northern side of the parcel AE-B-5(160) zone a seventeen thousand square feet (17,000'²) outdoor site was overlooked by the County as past cultivation. This area shall be temporarily decommissioned and native grass seed spread for local pollinators. It is intended to reopen this area through RRR of a parcel on Murder Mountain in Alderpoint which has a valid Ordinance 1.0 Interim Permit.

# The project shall remediate using the following techniques:

- 1. All evidence of past cultivation, including imported soils, shall be removed.
- 2. The area shall be covered with straw.
- 3. Native plant seed only shall be used to cover the area.
  - a. Golden State Native Grass Erosion Control Mix (blue wildrye, California brome, and California meadow barley) <a href="https://www.larnerseeds.com/product/cngem">https://www.larnerseeds.com/product/cngem</a>
  - b. Hills of California Wildflower Mix (California poppy, farewell-to-spring, Chinese houses, mountain garland, globe gilia, bird's eye gilia, globe gilia, tidy tips, mountain phlox, blue flax, miniature lupine, sky lupine, arroyo lupine, golden lupine, blazing star, baby blue eyes, five spot, desert

bluebells, tansy-leafed phacelia, and owl's clover) https://www.larnerseeds.com/product/hills-california

c. Tomcat Clover (*Trifolium* willdenovii)
https://www.larnerseeds.com/product/tomcat-clover

d. Bull Clover (*Trifolium fucatum*) <a href="https://www.larnerseeds.com/product/bull-clover">https://www.larnerseeds.com/product/bull-clover</a>

4. Under Ordinance 2.0 the cultivation area at APN 216-393-010 at 4205 Rancho Sequoia Drive shall be relocated to this site.

### N. Cultivation Plan

Operations shall be a thirty thousand six hundred forty square feet (36,640'2) outdoor full season and DEP cultivation. Production is intended for the adult recreational market as flower for distribution and/or bulk for extraction purposes. Operations shall meet all local and state regulatory requirements.

Cultivation shall be confined to two (2) centralized areas within the AE-B-5(160) and TPZ zones on slopes less than fifteen percent (<15%) slopes within beds and pots. There shall be an eleven thousand five hundred four square feet (11,504<sup>12</sup>) full sun outdoor area within the AE-B-5(160). The remaining twenty-five thousand one hundred thirty-six square feet (25,136<sup>12</sup>) shall be located within the AE-B-5(160) and TPZ zones as outdoor DEP greenhouses.

# The project shall utilize the following Cultivation Areas:

- 1. Within the TPZ zone eleven thousand five hundred four square feet (11,504'2):
  - a. Two (2) existing Ag-Exempt three thousand six hundred square feet (3,600'2) thirty feet by one hundred twenty feet (30'x120') outdoor DEP greenhouses totaling seven thousand two hundred square feet (7,200'2).
  - b. An existing Ag-Exempt two thousand square feet (2,000'2) twenty feet by one hundred feet (20'X100') outdoor DEP greenhouse.
  - c. An existing Ag-Exempt two thousand three hundred four square feet (2,304<sup>12</sup>) twenty-four by ninety-six feet (24'x96') outdoor DEP greenhouse.
- 2. Within the AE-B-5(160) zone twenty-five thousand one hundred thirty-six square feet (25,136'2):
  - a. Full sun eleven thousand five hundred four square feet (11,504<sup>12</sup>) outdoor area.
  - b. Three (3) existing Ag-Exempt two thousand eight hundred eighty feet (2,880'2) twenty-four feet by one hundred twenty feet (24x120') outdoor DEP greenhouses.
  - c. Two (2) new Ag-Exempt two thousand eight hundred eighty feet (2,880'2) twenty-four feet by one hundred twenty feet (24x120') outdoor DEP greenhouses.
- 3. All greenhouses shall meet the following requirements:
  - a. Be wired by a Licensed Electrician under permit.
  - b. Not be air conditioned or actively heated.

- c. Not be lighted.
- d. Utilize ventilation fans.
- e. Utilize timers for fans.
- f. Utilize Light Deprivation (DEP) covers.

# The following are compliance requirements for the Cultivation Area:

- Remediation Plan by a Qualified Professional for the on-site relocation of Site #5, such as a Registered Professional Forester, Licensed Fishery Biologist, Licensed Geologist, Licensed Hydrologist, or Licensed Engineer.
- 2. Agricultural Exempt Permits shall be submitted to the Humboldt County Building Department for the greenhouses and fertilizer storage sheds.
- 3. Electrical Permit shall be submitted to the Humboldt County Building Department by a Licensed Electrician who shall install the generator, switch box, conduit, and outlets to be utilized by commercial operations.
- 4. Greenhouse **construction shall occur after April 15** as required by Humboldt County Building Department.
- 5. State Water Board compliance with all measures identified within the *Water Resources Protection Plan (SITE MANAGEMENT PLAN)* shall be implemented.
- 6. **DFW §1602 LSA undertaken by a Qualified Professional**, such as a Registered Professional Forester, Licensed Fishery Biologist, Licensed Geologist, Licensed Hydrologist, or Licensed Engineer.
- 7. Dark Sky Plan shall be developed and implemented.
  - a. Greenhouses shall utilize DEP covers.
  - b. Nursery lighting shall utilize timers.
  - c. A sunrise/sunset calendar shall be posted on-site.
  - d. Artificial lighting shall not be visible from outside of the nurseries at night after sunset or before sunrise.
  - e. Standard Operating Procedures that incorporate a Dark Sky Plan shall be developed, implemented, and a written copy on premises at all times in accordance with all Humboldt County and State of California regulations.
- 8. Initial Statement of Diversion and Use shall be submitted to the SWCB DWR.
- Registration of Small Irrigation Water Right shall be submitted to the SWCB DWR.
- 10. Application to Appropriate Water shall be submitted to the SWCB DWR.
- 11. **Track & Trace** in accordance with the policies of County of Humboldt and State of California.
  - a. Unique Identifier Designations (UID) are required for each mature plant.
  - b. A unique harvest batch name shall be created and associated with all UIDs for each individual plant, or portion thereof, contained in the harvest batch.
  - c. UIDs shall be attached to the main stem and placed in a position so it is visible within clear view standing next to a mature plant.
  - d. UIDs shall be kept free from dirt and debris.

e. UIDS are prohibited from being removed from the mature plant to which it was attached and assigned until the plant is harvested, destroyed or

disposed.

f. Cannabis plants maintained outside of the designated Cultivation Area are prohibited from flowering. Should plants outside of the canopy area(s) begin to flower, a UID shall be applied, the plants shall be moved to the designated Cultivation Area without delay and reported in the Track-and-Trace system.

12. Permit to Operate the generator obtained from the Local Air District.

13. Fertilizers stored in designated areas and maintained per manufacturer recommendations.

- 14. Nitrogen Management Plan shall be developed by a Qualified Professional, implemented, and a written copy on premises at all times in accordance with all applicable Humboldt County, State of California, and Federal regulations.
- 15. Cannabis Waste Management Plan shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable Humboldt County and State of California regulations.
- 16. Pesticide Management Plan shall be developed by a Qualified Professional, with training for Private Applicator Certification, implemented, and a written copy on premises at all times in accordance with all applicable Humboldt County and State of California regulations.

17. Private Applicator Certification shall be undertaken with the Humboldt

County Agricultural Commissioner.

18. Standard Operating Procedures shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.

19. Transportation Plan shall be developed, implemented, and a written copy on premises at all times in accordance with all State of California regulations;

- 20. Receiving and Inventory Plan shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.
- 21. Processing and Packaging Plan shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.
- 22. Security Plan shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.

# O. Appurtenant Nursery Area

Cultivation shall be supported by four (4) on-site appurtenant nursery areas equal to eleven thousand four hundred seventy-five square feet (11,47512) in order to meet CDFA and operational requirements. This area shall occur separately where only immature plants shall only be maintained outside of the canopy area. These climatecontrolled areas shall meet Humboldt County Building Code and California Electrical Code for the use of electrical outlets for electric oil heaters, dehumidifiers, fans, and light fixtures.

# The project shall utilize the following Appurtenant Nursery Area:

1. Existing one thousand two hundred sixty square feet (1,260'2) thirty feet by forty-two feet (30'x42') greenhouse.

2. New two thousand eight hundred eighty feet (2,880'2) twenty-four feet by one hundred twenty feet (24x120') greenhouse physically separated in the middle to create two (2) nursery areas.

3. New one thousand four hundred forty square feet (1,440'2) twenty-four

feet by sixty feet (24'X60') greenhouse.

- 4. New three thousand three hundred seventy-five square feet (3,375'2) forty-five feet by seventy-five feet (45'X75') greenhouse.
- 5. All greenhouses shall meet the following requirements:
  - a. Be wired by a Licensed Electrician under permit.
  - b. May be actively or passively heated.
  - c. Not be air conditioned.
  - d. Utilize fans for ventilation.
  - e. Utilize low wattage efficiency lighting as feasible.
  - f. Utilize timers for lighting and fans.
  - g. Utilize DEP covers.

# All compliance requirements as listed for the Cultivation Area are applicable to the Appurtenant Nursery Area.

# P. Processing Plan and Wastewater Management

Operations shall be based upon a full sun outdoor dual season DEP harvests with on-site support facilities to meet operational, County, and State requirements. Product may be live harvested for extraction picked up by the manufacturer or bulk flower processed within an on-site appurtenant facility. Products processed on-site includes bucking within cultivation areas, drying of raw cannabis in a secure temperature humidity-controlled processing facility, machine and hand trimmed, and then packaged for distribution. An on-site office shall not be used for processing, instead, it will provide an area for paperwork and farm related business.

Both the processing facility and support office shall be powered by the Tier 4 generators, provided potable water from the well, and be rest areas. Respectively each building shall house an ADA restroom connected to permitted septic systems. All building development as F-1 structures shall meet Humboldt County Building Code and California Codes, including CDFA regulations in order to preserve the health and safety of the employees and the public.

# The project shall utilize the following Processing Facilities:

1. The support office shall be the existing six hundred seventy-two square feet (672'²) twenty-four feet by twenty-eight feet (24'x28') cabin within the TPZ Zone retrofitted to meet F-1 standards with ADA restroom connected

to septic. It shall provide an ADA van accessible and single standard

parking in front.

2. The F-1 processing facility shall be a new three thousand six hundred square feet (3,600<sup>12</sup>) thirty-six feet by one hundred twenty feet (36'x120') building with ADA restroom connected to septic. It shall provide an ADA van accessible and three (3) standard parking spots in front.

# The following are compliance requirements for the Processing Plan:

- 1. Building Permit shall be submitted to the Humboldt County Building Department for the temperature and humidity controlled drying facilities powered by the generator and restrooms connected to septic.
- Electrical Permit shall be submitted to the Humboldt County Building Department by a Licensed Electrician who shall install the generator, switch box, conduit, and outlets to be utilized by commercial operations.
- 3. Licensed Engineer shall perform a Humboldt County Road Evaluation Report. Should grading of over fifty yards (<50yd) of material or be located on a slope greater than fifteen percent (<15%) then the following applies:
  - a. Grading plan for internal roads which shall be designed by a licensed and qualified engineer to meet a minimum Category 2 Road Standard.
  - b. Grading permit shall be submitted to the Humboldt County Building Department.
  - c. Road construction shall be undertaken by a licensed and qualified contractor between April 15 to October 31.
- 4. **Track & Trace** in accordance with the policies of County of Humboldt and State of California.
- 5. Permit to Operate the generator obtained from the Local Air District.
- Cannabis Waste Management Plan shall be developed, implemented, and a
  written copy on premises at all times in accordance with all applicable Humboldt
  County and State of California regulations.
- 7. **Processing and Packaging Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable County of Humboldt and State of California regulations. Additionally, this plan shall incorporate:
  - a. Processed and dried cannabis procedure for weighing, packaging, labeling, and deposited in accordance with all applicable County of Humboldt and State of California requirements.
  - b. All work surfaces and equipment maintained in a clean and sanitary condition in accordance with all applicable County of Humboldt and State of California requirements.
  - c. Prevention practices against the contamination or growth of E.coli, mold, mildew, or other microbiological agent upon or within processed cannabis.
  - d. Nitrile gloves and paper facemasks shall be used at all times.
  - e. Hyenine policies for the use and maintenance of face and hand protection equipment in good operable condition.

- f. Hands washing methods policies to minimize activities which may introduce contamination.
- 8. *Transportation Plan* shall be developed, implemented, and a written copy on premises at all times in accordance with all State of California regulations;
  - a. Shall incorporate a road maintenance plan to maintain compliance with road standards required by Humboldt County, CalFire, and SWB.
- 9. **Receiving and Inventory Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.
- 10. Processing and Packaging Plan shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.
- 11. Security Plan shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.

# IV. Site Drainage, Runoff, and Erosion Control Measures

### A. Site Drainage

Benbow Valley Farms is located on the southern ridge upon Reed Mountain. The parcel has been used for agriculture in the past and is fairly flat in areas of activity. Cultivation operations are proposed upon this flat ridgeline which drains to the South Fork Eel River watershed. On the northwestern side the drainage is into Milk Ranch Creek and on the south side of the parcel a Class III Streams flows into Low Gap Creek within Mendocino County. The cultivation site is clustered on flats at the two thousand four hundred feet (2,400') contour, located more than four hundred sixty feet (400') from the stream, and in an area that has less than fifteen percent (>15%) slope.

Cultivation areas are contained within raised beds inside of greenhouses or planted directly into the ground with minimal soil infiltration occurring beyond the rootzone. Overall the parcel is less than fifteen percent (>15%) on the ridge to more than fifty percent (<50%) slope on the western side. As such, the environmental impact is minimal, and discharge of runoff to surface waters are low risk with proper implementation of control measures as identified within State Water Board Discharge requirements.

### B. Runoff and Erosion Control Measures

Benbow Valley Farms recognizes the benefits of minimizing discharge to the watershed and anadromous fisheries. The following erosion control measures are proposed to be implemented:

- 1. All measures of the Water Resources Protection Plan shall be implemented;
- 2. Training by environmental/farm professionals to further develop internal policies to minimize impacts by from farm related activities.
- 3. All cultivation shall utilize the raised beds and in the ground soils through amending and permaculture methods.
- 4. Road surfaces shall be graveled.
- 5. Outdoor soil beds shall be in ground, contained, and methods implemented to minimize soils loss.

6. Cover crops such as native clover and wildflowers, straw, or ground cloth shall be utilized on all bare soils; and,

# C. Watershed and Nearby Habitat Protection

Benbow Valley Farms shall be utilizing the following to ensure protection of the watershed and nearby habitat:

1. A Remediation Plan shall be implemented for the on-site relocation of the southern past cultivation site.

2. All measures of the Water Resources Protection Plan shall be implemented

- 3. Training by environmental and farm professionals to further develop internal policies to minimize impacts by from farm related activities.
- 4. All outdoor cultivation shall utilize the in the ground soils through amending and permaculture methods.
- 5. Raised beds shall be contained within greenhouses.
- 6. All farming shall be certified organic.

7. Graveling of the driveway.

- 8. A locked six-foot (6') perimeter fence around the cultivation area with greenhouses which shall have doors to minimize wildlife exposure.
- 9. Tier 4 generator shall be less than sixty decibels (60db) from one hundred feet (100').
- 10. Tier 4 generator shall be enclosed and obscured from wildlife.
- 11. All enclosures shall have locking doors.
- 12. Compost bin shall be covered and contained.

13. Trash bins shall be secured.

- 14. Cover crops such as native clover and wildflowers, straw, or ground cloth shall be utilized on all bare soils.
- 15. The southern pond made available for use by wildlife.

# D. Soil Management and/or Permaculture Methods.

Benbow Valley Farms shall protect from the overuse of nutrients as a key component of their business. Operations shall manage on-site soils through the following means:

- 1. All measures of the Water Resources Protection Plan shall be implemented.
- 2. A nitrogen management plan developed by a licensed soil scientist or geologist.
- 3. All cultivation shall utilize the current on-site soils through amending and permaculture methods.

4. All farming shall be certified organic.

- 5. Mixing, tilling, and amending of outdoor cultivation soils shall occur within the soils used for cultivation.
- 6. Raised beds shall be contained within greenhouses with amending occurring within the beds.
- 7. Soils and vegetated matter shall be reused, composted on-site, and no dumping off-site shall occur.
- 8. Composting shall consist of a dedicated area and vegetated matter shall be chipped into an inconsumable humic mix.

9. Cover crops such as clover, straw, or ground cloth shall be utilized on all bare soils.

# V. Fertilizers, Pesticides, or Other Regulated Products

### A. Storage Protocols

Benbow Valley Farms intends to be a certified organic farm. Operations shall not be using regulated products, such as pesticides or herbicides. The following are fertilizer storage protocols:

- 1. All measures of the Water Resources Protection Plan shall be implemented;
- Temporary storage of all fertilizers or other regulated and nonregulated organic products shall occur utilizing cargo container(s) until the processing facility is constructed. Products shall be stored according to manufacturer requirements;
- 3. A permanent storage shed on a foundation shall be constructed with shelf and floor space for products to be stored according to manufacturer requirements;
- 4. Clean-up and containment protocols shall be developed and implemented to minimize discharge;
- 5. Clean-up and containment equipment shall be maintained in good operating condition on-site at all times; and,
- 6. Safe handling practices and protocols for using clean-up and containment equipment shall be developed and posted conspicuously.

### B. Fertilizers and Amendments Utilized

Benbow Valley Farms shall be utilizing any or all of the following certified organic amendments and fertilizers in Table 2.

Table 2: Organic Soil Fertilizers and Amendments					
1. Bat Guano	6. Fishbone	11. MycoApply Endo Ultra *			
2. Bone Meal	7. Grape Compost	13. Neem Meal			
3. Cascade Worm Castings	8. Gypsum	14. Phytamin Fish 3-2-0*			
4. Crab Shell	9. Kelp Meal	15. Seabird Guano			
5. Epsom Salt	10. Kickstart 6-1-2*	16. Shrimp Meal			
*Organic Material Review Institute listed and California Department of Food & Agriculture registered organic input material.					

### C. Pesticides

Benbow Valley Farms methods and care during cultivation typically require minimal pest management, though, there may be situations requiring the potential use of any the following agriculturally exempt products in Table 3.

Table 3: Legal Pest Management Practices for Marijuana Growers in California			
Active Ingredient	Pest or Disease		
Azadirachtin	Aphids, Whiteflies, Fungus Gnats, Leafminers, Cutworms		
Bacillus subtilis QST	Root Diseases, Powdery Mildew		
Bacillus thuringiensis subsp. aizawai or kurstaki	Moth Larvae (E.G., Cutworms, Budworms, Borer)		
Bacillus thuringiensis subsp. Israelensis	Fly Larvae (E.G., Fungus Gnats)		
Beauveria bassiana	Whiteflies, Aphids, Thrips		

Cinnamon oil	Whiteflies
Gliocladium virens	Root Diseases
Horticultural Oils (Petroleum Oil)	Mites, Aphids, Whiteflies, Thrips; Powdery Mildew
Insecticidal Soaps (Potassium Salts of Fatty Acids)	Aphids, Whiteflies, Cutworms, Budworms
Iron phosphate, sodium ferric EDTA	Slugs And Snails
Neem Oil	Mites; Powdery Mildew
Potassium bicarbonate; sodium bicarbonate	Powdery Mildew
Predatory nematodes	Fungus Gnats
Rosemary + peppermint essential oils	Whiteflies
Sulfur	Mites, Flea Beetles
Trichoderma harzianum	Root Diseases
Active ingredients that are exempt from residue tolerance	requirements and either exempt from registration

Active ingredients that are exempt from residue tolerance requirements and either exempt from registration requirements or registered for a use broad enough to include use on marijuana. <a href="http://www.waterboards.ca.gov/water">http://www.waterboards.ca.gov/water</a> issues/programs/enforcement/docs/cannabis enfrcmnt/pest mgmt

### VI. Operations and Safety Practices

### A. Commercial Operations

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Benbow Valley Farms shall be an "agricultural employer", as defined in the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5 commencing with §1140) of Division 2 of the Labor Code, to the extent not prohibited by law. Operations shall be employing persons for hire as allowable by law.

- 1. 1. The owner and his wife shall be managing the daily operations of the farm.
- 2. There shall be two (2) full-time employees.
- 3. Up to three (3) temporary part-time employees may be hired as seasonally required for planting, harvesting, or processing.
- 4. If ever over 20 employees are hired, they shall be allowed to unionize and negotiate a Labor Peace Agreement according to MCRSA §19322(a)(6).

Benbow Valley Farms shall 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).

At all times, employees shall have access to safe drinking water, toilets, and handwashing facilities that comply with all applicable federal, state, and local laws and regulations. On site-housing provided to employees shall not be provided.

# **B. Employee Safety Practices**

Benbow Valley Farms operations and drying operations shall implement safety protocols to protect the health and safety of its employees. All employees shall be provided with adequate safety training relevant to their specific job functions. Further, safety needs of employees shall be a priority and implemented to the best of operational abilities.

- 1. Drinking water and wastewater
  - a. Potable water shall be provided from off-site bottle or cooler water.

- b. A restroom connected to a septic system.
- 2. Emergency action response planning.
  - a. Training and certification in basic CPR & 1st Aid.
  - b. A CPR & 1st Aid Kit Station shall be provided within the drying facilities.
  - c. An emergency response plan shall be designed and implemented.
  - d. A monitored security and active video camera system may be installed.
- 3. Fire prevention.
  - a. Fire suppression tanks shall be monitored for water level and topped off on a monthly basis if necessary.
  - b. All fire hydrant connections shall be maintained for proper fit and function.
  - c. Smoke detectors shall be installed and may be connected with a monitored security system.
  - d. The appurtenant drying facilities shall have at a minimum one (1) dry chemical fire extinguishers with a twenty-pound (20lb) capacity in each building.
  - e. Fire extinguishers may also be installed within convenient locations accessible during working hours.
  - f. Fire extinguishers shall be maintained and certified on an annual basis.
- 4. Hazard communication policies, including maintenance of material safety data sheets (MSDS).
  - a. Pesticide Management Plan shall be developed.
  - b. Private Applicator Certification and a written copy of the plan and certification shall be on premises at all times in accordance with all applicable Humboldt County and State of California regulations.
  - c. MSDS of all pesticides used shall be on premises at all times.
  - d. A pesticides management plan shall be on premises at all times.
  - e. Training in the proper handling of all hazardous materials, if any are ever used.
  - f. If any regulated substances are ever used, MSDS of any applicable hazardous materials shall be posted visibly on-site at all times.
- 5. Materials handling policies.
  - a. Training in the handling of cannabis and other related on-site materials shall occur on an annual basis.
  - b. All Track and Trace requirements shall be implemented.
  - c. A transportation plan shall be developed and implemented.
  - d. Standard Operating Procedures shall be developed and implemented.
- 6. Job hazard analyses.
  - a. Risks assessment audit shall be implemented and activities modified to reduce job hazards.
- 7. Personal protective equipment policies; including respiratory protection.
  - a. Certified safety glasses (tinted and clear), hats, disposable and reusable gloves, disposable face masks, and filtered respiratory protection may be on-site and used.
  - b. Training in the use, expectations, and access to personal protective equipment.

### VII. Processing Practices and Plan

Benbow Valley Farms shall utilize up to two (2) full-times and up to three (3) employees who shall not be provided on-site housing by the employer. Compliant restrooms and breakrooms shall be within four hundred feet (400') of the area of operations and connected to the installed septic systems. There shall be potable water from the well provided at each facility for employee use.

### A. Processing Practices

Benbow Valley Farms shall implement and practice the following Processing Practices on-site at all times:

- 1. All work surfaces and equipment shall be maintained in a clean and sanitary condition:
- 2. Prevention against contamination, mold, and mildew growth on processed cannabis:
- 3. Facemasks and gloves shall be in good operable condition; and,
- 4. Hands shall be sufficiently clean when handling cannabis or use gloves.

### B. Processing Plan

Benbow Valley Farms processing plan of cultivated cannabis consists of:

- 1. Harvesting cannabis is shall occur twice (2) a year and records kept consistent with CDFA regulations.
- 2. Product may be harvested in bulk, frozen, and transported off-site in a matter of hours by a manufacturer.
- 3. Bucking of vegetative leaf for compost use shall occur within the cultivation areas
- 4. Drying of harvested cannabis shall only occur within the processing facility.
- 5. On-site processing of product utilizing a mechanical and hand trimming, weighing, packaged, labeled, and distributed to licensed dispensaries or distributors, as allowable under California law, and shall adapt as changes occur.

# C. Parking and Road Usage

- 1. The entrance shall be engineered according to code requirements for approach and departure.
- 2. The driveway shall be at a minimum of ten feet (10') wide, with two feet (2') shoulders, graveled, and culverted.
- 3. There shall be a total of two (2) ADA van accessible and six (6) standard sized parking stalls.
- 4. Employees shall be encouraged to carpool to the site whenever possible.

# VIII. Security Plan

Operations shall be conducted securely. At all times shall operations be visibly obscured, discreet, nor draw attention. The purpose of operational security is to avoid being a nuisance activity which could attract burglary, robbery, or diversion of cannabis for unlawful use.

### A. Security Measures

The intention of security measures is to meet the minimum requirements to secure product while protecting the health and safety of employees and the public. The location of the site, setback of operation areas behind trees, and other features not only present natural security but also present security issues in regards to support infrastructure and law enforcement response times. More than the minimum security measures may be implemented at any time to increase the health and safety of employees and the public.

# The following are Security Measures:

- 1. Locks shall be installed on all structures.
  - a. Commercial-grade, non-residential door locks at all points of entry and exit.
  - b. It is recommended that alarmed lock systems be considered to ensure restricted access.
- 2. Secure road gates shall utilize a commercial grade lock which is locked at all times. Gates and roads may be surveilled.
- 3. Operations shall be secured by a fence at least six feet (6') in height with a locking gate utilizing a commercial grade lock.
  - a. Fencing over six feet (<6') shall require a Humboldt County Building Permit.
- 4. On-site monitored security and fire system may be installed, if feasible, and accessible only to permitted individuals.
- 5. Digital video surveillance system, if feasible, with 1280×720 resolution connected through the internet 24/7 to a licensed alarm monitoring company.
- 6. Passive audible trespasser alarm system may be installed.
- 7. Cameras may be installed.
- 8. Video recording system may be installed within the processing facilities
- 9. Any security personnel employed must possess a valid Guard Card and be compliant with the California Department of Consumer Affairs.

# The following are compliance requirements for Security:

- 1. Electrical Permit shall be submitted to the Humboldt County Building Department by a Licensed Electrician who shall install the generator, switch box, conduit, and outlets to be utilized by commercial operations.
- 2. Track & Trace in accordance with the policies of County of Humboldt and State of California.
- 3. Permit to Operate the generator obtained from the Local Air District.
- 4. **Cannabis Waste Management Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable Humboldt County and State of California regulations.
- Standard Operating Procedures shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.
- 6. **Transportation Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all State of California regulations;

7. **Receiving and Inventory Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.

8. **Processing and Packaging Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of

California regulations.

9. **Security Plan** shall be developed, implemented, and a written copy on premises at all times in accordance with all applicable State of California regulations.