

# **HIGHLAND FARMS** **PROPERTY MANAGEMENT PLAN**

## **Project Location**

7408, 7522, 7527, & 7634, 7746 Highland Springs Rd.  
and 7257 & 7357 Amber Ridge Rd.,  
Lakeport, CA 95453

## **Project Parcels**

Lake County APNs:

Cultivation/Project Parcels: 007-006-34, 35, & 40

Collocation/Clustering parcels: 007-006-27, 41 and 007-057-02

Contiguous parcels owned under five acres: 007-057-01

**UP 20-96**

## **Project Manager:**

Autumn Karcey

Submitted On: December 14<sup>th</sup>, 2020

Amended: August 10<sup>th</sup>, 2023

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## **PROJECT DESCRIPTION**

Highland Farms, LP is seeking a major use permit for nineteen (19) A - Type-3 "Outdoor" Cultivation Licenses for the 2024 cultivation season for Phase 1 of the project. In addition, during phase 2 of the buildout, Highland Farms is applying for two (2) A & M -Type 3B "Mixed-Light" Licenses and one (1) Type 13 (B & C) Distribution License from the County of Lake Community Development Department (CDD). In addition, Highland Farms is applying for (1) type N Nursery License under a separate entity, Lake County Farmz Development, LLC, per DCC regulation.

The properties mentioned herein are located at 7522, 7527, 7746, 7634, 7408, Highland Springs Rd. and 7257 & 7357 Amber Ridge Rd. Cultivation will take place on APNs: 007-006-34, 35, and 40. This Project is being proposed with additional contiguous parcels (APNs: 007-006-27, 41, and 007-057-02) to allow for the collocation/clustering of permits. Additionally, parcel number 007-057-01 will not be counted towards the Project's total acreage as it is under 5 acres and does not qualify for clustering. However, it may be merged into a contiguous parcel at a later time. Therefore, any mention of the project parcels or property beyond this point will only describe APNs 007-006-34, 35, and 40 unless expressly noted.

### **PHASE 1**

During phase 1, Highland Farms will plant in the ground using the native soil and organic amendments.

- Area (A) encompasses 83,229  $ft^2$  of fenced-in area; the total area with canopy and aisleways included is around 59,347  $ft^2$ .
- Area (B) encompasses 69,568  $ft^2$  of fenced-in area; the total area with canopy and aisleways included is around 47,527  $ft^2$ .

- Area (C) encompasses 376,532  $ft^2$  of fenced-in area; the total of area (C) with both canopy and aisles included is 317,443  $ft^2$ .
- Area (D) encompasses 321,955  $ft^2$  of fenced-in area; the total space with both canopy and aisles included is 278,312  $ft^2$ .

Highland Farms proposes twenty-eight (28) 5,000-gallon plastic tanks for phase 1 for irrigation and fire suppression if needed. An additional 2,500-gallon NFPA-rated tank will be added for fire suppression.

*\*See attached map for details*

## **PHASE 2**

After UP 20-96 is approved, building permits will be submitted; once obtained, grading and construction will occur.

### ***PHASE 2 of UP 20-96 includes the following:***

- Area (A) encompasses 82,229  $ft^2$  of the total fenced-in area; the entire area, including both canopy and aisleways, equals roughly 59,347  $ft^2$ .
- Area (B) includes a total fenced-in area of 69,568  $ft^2$ ; the area, including both canopy and aisleways, equals roughly 47,527  $ft^2$ .
- Area (C) includes a total fenced-in area of 193,717  $ft^2$ ; the area, including both canopy and aisleways, equals roughly 149,771  $ft^2$ .
- Area (D) includes a total fenced-in area of 321,955  $ft^2$ ; the area with both canopy and aisleways equals roughly 278,312  $ft^2$ .

- Building (E) is a prefabricated (up to 30' tall) two-story metal processing building 100'x 60' = 12,000  $ft^2$ . The processing building will mainly be used for administrative services, drying, and storage.
- Greenhouse building (H) is 160 x 296'  $ft^2$  – 90  $ft^2$  (for loading zone) = 47,270  $ft^2$  and includes 34,428  $ft^2$  of mixed-light canopy area with (57) 151' long x 4' wide benches.
- Greenhouse nursery building (J) is 100 x 296' = 29,600  $ft^2$  and includes 20,748  $ft^2$  of mixed-light nursery canopy area with (57) 91' long and 4' wide benches.
- Building (I) is a single-story 281' x 100' = 28,100  $ft^2$  single-story prefabricated metal processing building, mainly used for drying and storage.

*\*Canopy and isles may be subject to change based on cultivation style and time of planting*

### **Supplemental Information**

The property's current owner is Leventhal Realty Highland Springs, LLC, leasing the property to Highland Farms, LP. Highland Farms, LP, is a subsidiary of Obsidian Enterprises, operated by Autumn Karcey, Founder and CEO. The nursery will be leased to Lake County Farmz Development, LLC, and managed by Founder and CEO Autumn Karcey.

The total acreage of the qualified parcels is 508.19 acres. The project parcels are zoned Rural Land (RL) and are not located within any exclusion zones, including the Farmland Protection Zone. The property is roughly two miles Southwest of Highland Springs Rd. and East Highland Springs Rd.

All greenhouses and processing buildings are prefabricated and manufactured by reputable third-party companies that include structurally engineered stamped plans and comply with all IBC, CBC, and Title 24 building codes. The material used for exterior walls in the greenhouse and the metal buildings will be insulated metal panels (IMP); Therefore, no light can penetrate

through the sidewalls of the greenhouse. The greenhouse roof is comprised of an 8mm twin-wall polycarbonate material with 80% light transmission and 95% Light diffusion.

Lighting in all Greenhouses and nurseries will automatically switch off when the useable sunlight inside the greenhouse exceeds a conservative 600 watts per square meter. All lighting fixtures in the nursery and greenhouse will utilize LED lighting technology; LED lighting offers a minimum 35% decrease in power consumption, with a potential 50% saving over standard greenhouse HPS lighting. Highland Farms will use state-of-the-art electronic thermostats with advanced sensors for accurate temperature control and real-time climatic data monitoring.

Highland Farms will install variable frequency drives (VFDs) on exhaust fans, heat buffering systems, zone pumps, and mixing valves to utilize energy efficiently. In addition, Highland Farms will install retractable insulation curtains in all greenhouses and nurseries to reduce heat loss and gain more control over natural light levels and excess greenhouse temperatures, reducing the need for mechanical cooling systems. Environmental impacts of all structures will be addressed in the CEQA Initial Study prepared by Analytical Environmental Services (AES), now Montrose Environmental.

### **Pesticide and Fertilizer Use:**

The cannabis cultivation area will have a minimum setback of 50' feet from the top of the bank of any body of water. There will be no surface water diversions proposed with this project.

Highland Farms plans to supplement its cultivation with both dry and liquid fertilizers. All fertilizers and pesticides used with this project will be from the approved list set forth by the Department of Cannabis Control (DCC) prior to use. All fertilizers, nutrients, and pesticides will be purchased and delivered to the property only as needed; All products will be stored in their original containers and used as directed by the manufacturer. All pesticides and fertilizers will be mixed/prepared on an impermeable surface with secondary containment, at least fifty feet

from all surface bodies of water. Empty containers will be disposed of in a separate seal-tight bin with a fitted lid and disposed of at the County's local solid waste facility.

In accordance with State Water Resource Control Board's Cannabis General Order, at no time will fertilizers or nutrients be applied at a rate greater than 319 pounds of nitrogen per acre per year. Water-soluble fertilizers will be delivered via micro-drip irrigation and electrostatic spray-on foliar feed to promote optimal plant growth and flower formation while reducing the use of fertilizers and water.

Highland Farms proposes three (4) 300-gal storage tanks, one for diesel, one for gasoline, and two for propane. Tanks will be delivered, serviced, and maintained by an authorized third party who follows EPA CODE § 112.7. All general spill prevention, control, and countermeasure plan requirements will be met.

Petroleum products will be stored year-round in State of California-approved containers with secondary containment and separate from pesticides and fertilizers within the storage areas. During phase 1, Highland Farms will keep agricultural chemicals associated with cannabis cultivation (fertilizers, pesticides, and petroleum products) in a lockable secure cabinet inside a structure less than 120'  $ft^2$ . During phase 2, Highland Farms will store agricultural chemicals associated with cannabis cultivation (fertilizers, pesticides, and petroleum products) within the secure proposed processing buildings (E & I) within a lockable secure cabinet.

The well water will be pumped from the wells to twenty-eight (28) 5,000-gallon water storage tanks near the cultivation areas during phase 1. Highland Farms will use water lines comprised of schedule 80 PVC piping from the wells to the storage tanks.

*\* Please see the Water Use Section for methodology and water calculations.*

Straw wattles are proposed around the cultivation areas to filter sediment from stormwater.

The natural existing vegetated buffer will be maintained between all project areas and waterways on the property.

### **Biology and Archaeology**

A Biological and Habitat Assessment was completed on December 9, 2020, with a site visit completed on May 25<sup>th</sup>, 2020, prepared by Pinecrest Environmental Consulting, 105 Morris Street, Suite 184, Sebastopol, California 95472. Three plant surveys have been completed for the proposed project: March 2021, May 2021, and June 2022, covering the bloom periods for all potentially occurring special-status plants (Attachment 3 of the ISMND). Therefore, no further plant surveys are needed. Additional surveys were conducted by Analytical Environmental Services (AES), now Montrose Environmental.

A minimum of 50-foot buffers around wetlands and Class III streams and 100-foot buffers around Class II streams have been incorporated into the project design. BMPs to protect wetlands and watercourses, as well as the demarcation of wetlands, shall be prepared by a qualified biologist. All compliance shall be adhered to per mitigation measures BIO-2 and BIO-3 of the ISMND.

An onsite Cultural Resource Evaluation of the parcels was completed on December 5<sup>th</sup>, 2020, prepared by Konocti Cultural Resource Management. As no "significant" historic sites or features were found, the proposed project has been recommended to be approved as planned. Please see the report submitted with this application for full results and recommendations.

Konocti Cultural Resource Management performed an additional onsite Cultural Resource Evaluation on August 11, 2021, to determine any impact 4290 compliance may have on the existing roadway leading into the project area. Upon Dr. Douglas S. Prather's site visit, no cultural resources were noted along the private road leading to the project area. The recommendation for the project to be approved as planned was upheld.



Highland Farms is aware that if any archaeological, paleontological, or cultural materials be discovered during site development, all activity shall be halted in the vicinity of the find(s), and the local overseeing tribe shall be notified. A qualified archeologist would be retained to evaluate the discovery(s) and recommend mitigation procedures, if necessary, subject to the approval of the Community Development Director.

In the event human remains are encountered, The Applicant shall halt all work and immediately contact the Lake County Sheriff's Department and the CDD. If discovered, all human remains shall be treated in accordance with Public Resources Code Section 5097.98.

## **Electrical**

Highland Farms will not require a high amount of electricity during Phase 1. The cultivation will be all outdoors using natural sunlight. The well water pumps will be the primary source of power consumption at Highland Farms, with a light demand from security equipment and charging electronic devices. The farm will achieve power requirements throughout phase 1 by utilizing solar panels and (3) 45kw propane generators. The generators will be used during the startup of the well pumps and when solar is insufficient. All generators will be purchased new or gently used and will meet or perform below the maximum decibel requirement at the property line, as set forth by Lake County Zoning Ordinance Article 41, and will meet all California Air Resource Quality Board requirements.

During phase 2, a new electrical service will be applied for to support the proposed structures. Highland Farms will use an approximate combination of 75% PG&E, 25% Solar, and backup generators will be used for supplementation during power outages. Backup generators will be used as a supplemental power source during a power outage. PG&E electrical will be brought in through overhead lines as a new service. The estimated site power requirements are around 4000 kVA, collectively distributed between all structures. Solar site power is supplied by seventy-five (75) x 315w solar panels connected to twenty-four (24) 12v deep cycle batteries

supplemented by three (3) 45kw diesel generators. Solar production can be increased by adding 600+ rooftop panels to the processing structures to accommodate additional energy offset of PG&E requirements loads.

*\*Please see the preliminary load calculations attached to the site maps for details.*

## **Waste**

All organic waste will be placed in the designated composting area within the cultivation area. All solid waste will be stored in bins with secure-fitting lids until disposed of at the Eastlake Landfill, at least once a week during the cultivation season, mid-April for auto flower crops, and June – October for the full-term crops. The greenhouses, once constructed, will dispose of waste on a biweekly basis. The Eastlake landfill is the closest Lake County Integrated Waste Management facility.

## **Employees**

Highland Farms' hours of operation will occur between 8 a.m. - 7 p.m., with deliveries and pick-ups restricted to 9 a.m. - 7 p.m. Monday through Saturday and on Sunday from 12 p.m. - 5 p.m.

Highland Farms is currently being operated and managed by Autumn Karcey—Ms. Karcey has completed her local Lake County Sherriff's Department and CA State background checks.

All Highland Farms' future employees will undergo a background check by the Lake County Sheriff's Department prior to starting employment. All employees shall be United States citizens or eligible for employment within the US with proper documentation.

The Community Liaison/Emergency Contact, Autumn Karcey, may be contacted at (530) 379-8588 or [autumn@alchemy29.com](mailto:autumn@alchemy29.com). Ms. Karcey will be available to contact twenty-four hours a day, seven days a week, including holidays.

## **Accessibility and Parking**

The project's Property is accessed from Highland Springs Rd. by a private access driveway connecting Amber Ridge Ct and the proposed project area. The total access roadway is approximately 6,500' in length, with an approximate slope of 0% to a maximum of 15%. The roadway is twenty feet wide with unobstructed vertical clearance and fourteen feet of unobstructed horizontal clearance at the gate. A 6-inch gravel layer will be added to the entire length for erosion and dust control. The driveway will be maintained and improved as needed in accordance with PRC 4290 as structures are added.

During phase 1, forty-four (44) temporary spaces are available onsite. During phase 2, once the commercial structures are implemented, Highland Farms proposes fifty-nine (59) parking stalls and four (4) ADA spaces. The proposed parking area will have 6" of compacted gravel. A dedicated hammerhead turnaround will be provided at the terminus, 60' wide and 20' in length within the parking lot area.

There will be a dedicated loading zone outside building I for the distribution license. Parking lots and roadways will be covered with compacted gravel to control dust. Highland Farms will utilize unmarked transport vans to transport products off-premises. All transport vehicles shall comply with all California Cannabis Track-and-Trace requirements per the DCC.

The access driveway to the parcel currently has a security gate at the property entrance. The gate entrance is more than 2 feet wider than the width of the traffic lane, with a minimum of fourteen feet of unobstructed horizontal clearance and fifteen feet of unobstructed vertical clearance. The gate will be locked outside core operating/business hours (8 a.m. to 7 p.m.) and whenever Highland Farms personnel are absent. The gate will be secured with a heavy-duty

chain, commercial-grade padlock, and a Knox Box to allow 24/7 access to emergency services. Only approved Highland Farms managerial staff and emergency service providers can unlock the gates on the project's property.

A 6-foot-tall fence with security cameras will surround the cultivation area during both phases and all buildings where Cannabis is grown, stored, or processed. The proposed processing buildings (E & I) will contain cannabis processing activities such as administrative offices, drying, trimming, curing, packaging, and storage.

## **SUPPLEMENTAL DATA FOR INITIAL STUDY**

*\*Please Note that a CEQA Initial Study (IS/MND) in the Lake County template has been included in this submission in a Microsoft Word Document/PDF. It has been submitted through File Transfer and emailed directly to Andrew Amelung and Mary Claybon at the Lake County CDD. The CEQA Analysis IS has been completed by Analytical Environmental Services (AES), which is now formally known as Montrose Environmental. For more information, please contact Kathleen Shotly at (916) 447-3479. Montrose Environmental is located at 1801 7<sup>th</sup> St., Suite 100, Sacramento, CA 95811.*

### **Description of the Project and its operational characteristics**

#### **Type of Business:**

*Commercial Cannabis Cultivation, Nursery, and Distribution*

#### **Product or service provided:**

*Cannabis and related products and services*

#### **Hours of Operation:**

*Highland Farms' regular business hours are from 8 a.m. to 7 p.m. PST Monday – Sunday, during peak season. Deliveries and pick-ups are limited from 9:00 a.m. – 7:00 p.m. PST Monday – Saturday and 12:00 p.m. – 5:00 p.m. PST on Sundays.*

**Number of shifts:**

*Highland Farms proposes one shift during regular operating times and two shifts at peak operating times during planting and harvest. Therefore, the maximum number of Employees is needed only at certain times of the cultivation season, mainly during planting and harvest.*

**Number of employees per shift:**

*During Phase 2's peak operating times, Highland Farms estimates between 20-30 employees during planting and harvest, allowing two weeks for each process. Year-round, 5-10 full-time employees will be needed to manage the day-to-day operations. Employees required will vary depending on the stage of the cultivation season and the land management needs of the property.*

*The greenhouse will have a maximum of five (5) full-time employees to manage the day-to-day operations year-round. The maximum number of employees and subcontractors on-site during the peak season will be, at most (30) people. Employees needed will vary depending on the different stages of cultivation.*

*Once the proposed greenhouse nursery is built, it will run year-round. Outdoor Cultivation season runs from Mid-April – Late July for auto flower crops. Depending on the market, auto-flowers are planned for April 2024, and the full-term crop runs from June - October.*

*The applicant has two other farms and a processing facility within the County of Lake. Employees and subcontractors will be on a rotating schedule to work all properties, creating less of a County-wide environmental impact and, simultaneously, creating more full-time jobs for residents as opposed to seasonal farm work.*

**Number of deliveries per day:**

*The average number is determined when cultivation begins; however, it is estimated to be a minimum of one (1) per day with a maximum of three (3) per day during peak times, such as planting and construction.*

**Number of pick-ups per day:**

*This average number is determined when cultivation begins; however, it is estimated to be a minimum of one (1) per day with a maximum of five (5) per day during harvest.*

**Lot Size:**

*508.19 acres in total. The number is based on contiguous qualifying parcels).*

**Number and type of company vehicles:**

*Highland Farms estimates four (4) pick-up trucks and two (2) 26' box trucks. Vehicles are split between Applicant's three other farms and a processing facility within Lake County, CA. Therefore, creating less of an environmental impact than if four different license holders owned these farms.*

**Type of loading facilities:**

*During Phase 1, a designated open loading zone will be near the cultivation sites' front entrance. After Phase 2's construction has commenced, a loading zone will be provided in the parking lot outside the processing facility (I) and near the cultivation site's front entrance.*

**Floor area of existing structures:**

*Not applicable*

**Proposed building floor area:**

*Buildings H, I, and J are single-story structures (up to 30' tall) measuring 360' x 296' – 1,590 ft<sup>2</sup> (for loading zone) = 104,970 ft<sup>2</sup>; of that, the nursery portion of the greenhouse building (J) is 100' x 296' = 29,600 ft<sup>2</sup>, and the mixed-light cultivation portion of the greenhouse building (H) is roughly 154' x 296' – 90 ft<sup>2</sup> (for loading zone) = 47,270 ft<sup>2</sup>.*

*Attached to the greenhouses is a single-story processing facility building (I) measuring 100' x 281' = 28,100 ft<sup>2</sup>.*

*In addition, there is a processing facility building (E) that is 100' x 60' = 6,000 ft<sup>2</sup> two-story (up to 30 ft. tall). The total proposed area equals 116,970 ft<sup>2</sup>, including the second story of buildings (E).*

*\*See site plan for details*

**Number of parking spaces:**

*During phase 1, forty-four (44) temporary spaces are available onsite near the front gate of the cultivation area. After UP 20-96 is approved, and structures are built, Highland Farms proposes a total of fifty-nine (59) parking stalls and four (4) ADA spaces. The proposed parking area will be comprised of a 6" compacted gravel base.*



**Number of floors:**

*Building (E) is a two-story (up to 30' tall) structurally engineered metal building, while the greenhouse and attached processing building are single-story structures.*

**Additional Relevant Information:**

*Highland Farms will not build any structures or modify the project area until full approval of UP 20-96 and all required permits are obtained. Highland Farms would like to cultivate upon approval in the summer of 2024 under Phase 1.*

**Description of Site Prep/Construction Activities**

● **When do you anticipate starting construction?**

*After the building permits have been approved, Applicant anticipates construction beginning in September of 2023 or earlier upon permit approval and weather permitting.*

● **How long will construction take?**

*Construction will take approximately six to nine months to complete all facilities; timelines are subject to approvals and inspections by County Officials and DCC.*

● **What days/times will construction occur?**

*Construction hours are limited to 7:30 a.m. to 6:00 p.m., Monday through Saturday.*

- **What type of construction equipment will be used?**

*Trucks, hand tools, tractors, excavators, dump trucks, and other general construction equipment will be used as needed.*

- **How many truck vehicle trips will be necessary for construction?**

*Based on a 40-yard truck, it is estimated that approximately twenty-four (24) truck trips will be required to deliver supplies for onsite farming activities.*

*During Phase 2, it is estimated that based on a 30' flatbed truck, approximately 150 to 160 truck trips will be required during construction.*

- **Will equipment be idling during construction?**

*All equipment will be shut off when not in use.*

- **Where will construction equipment be staged/stored?**

*During Phase 1, construction equipment will be stored near the cultivation site's front entrance, the existing driveway's shoulder, and in the area of operation, as needed.*

*During Phase 2, equipment will be stored on the existing driveway's shoulder and the parking lot (once constructed).*

- **Will any trees or vegetation be removed? If yes, please provide type and amounts.**

*Low Shrub removal will be performed as needed; no tree removal is necessary.*

- **How much grading is anticipated to occur, and where?**

*The Grading permit shall include the following:*

**Project Area Earth Moved:**

Area (A, B, C, D, & E) total earth moved (sum of cut & fill)

Total estimated cut volume = 108,202 CY

Total estimated fill volume = 48,542 CY

Total estimated net volume of 59,660 CY (CUT)

**Road & Culvert Improvement Earth Moved:**

Total estimated cut volume = 8,920 CY

Total estimated fill volume = 8,920 CY

Total estimated net volume of = 0 CY (CUT)

**Access Road Slope Upgrades (near the entrance):**

Total estimated cut volume = 6,167 CY

Total estimated fill volume = 372 CY

Total estimated net volume = 5,795 CY (cut).

The following are increased disturbed areas that account for a 5' buffer from the grading limits; total disturbed area = 27.7 acres

*\* Please see grading plans for further details.*

- **Will soil be imported or exported to/from the site? If so where and what amount**

*During phase 1, a reputable agricultural supply company will deliver around 2,500 yards of compost, which will amend the current soil. All media will be tested for heavy metals under CDFA standards and require third-party agronomists' approval before being delivered onsite.*

*During Phase 2, Highland Farms will compost organically onsite to amend the existing soil. Organic amendments will be brought in as needed, supplementing the soil mix currently on the property after each growing season.*

- **Is trenching required? If yes, please provide location, dimensions, and cubic yards.**

*Highland Farms will require trenching for both the irrigation and electrical; all plans are subject to approval from the CDD. Please see the stamped Civil plans prepared by Summit Engineering submitted with this application for further details.*

- **How much water will be used for construction, operation, and maintenance? What is the water source?**

*The estimated amount of water needed for this project's construction is unknown at this time; a rough not-to-exceed estimate is 3,000 GPD. The water source used for construction and maintenance will come from the three existing in-ground wells located on the property. The well logs indicate that all three wells are between 140' - 200' in depth. An estimated sustainable yield of all three wells combined is approximately 336 GPM.*

*The three onsite wells also provide water for the Cultivation. In addition to the civil plans, Summit Engineering has prepared a water availability analysis (WAA), also submitted with Project.*

## **Other questions and information needed for the Initial Study**

- **Describe how scenic views or vistas are impacted by the cultivation site.**

*Views will not be impacted at all; due to the topography of the site, surrounding vegetation, and the distance from public roadways, the site is unlikely to be seen off the property. No nearby residences have visibility into the cultivation areas or support structures.*

- **What lighting is proposed for the Project? Will areas be lit at night?**

*Motion lighting is proposed in the parking areas and the future processing facility. All lighting will be fully shielded, downward casting, and will not spill over onto other properties or the night sky.*

*The greenhouse has a twin-wall polycarbonate roof with 80% light transmission and 95% light diffusion. Light pollution will be reduced by 95% through black-out curtains and insulation screening. The greenhouse is unlikely to be seen offsite as it is located in a remote area with no visible neighbors.*

- **Are there existing agricultural uses onsite besides Cannabis? Will they be removed?**

*There are no existing agricultural uses.*

- **Will the Project result in the loss of forest land? If so, describe how many acres and what type of trees.**

*No removal of trees will take place during phases 1 or 2. Low brush will be removed as needed for fire clearance.*

- **How will dust, ash, smoke, fumes, or odors generated by the cultivation site be managed?**

*The cultivation operation will not generate any ash or smoke.*

*Dust will be mitigated by watering or placing seed/mulch/gravel on bare soil.*

*Odors from the processing facility will be managed using carbon filters and a ventilation system within the buildings. Filters will be changed every quarter in accordance with Highland Farm's air filtration SOP.*

*Outdoor odors will be managed by planting fragrant native flowering vegetation surrounding the cultivation area.*

- **Are there any water features (drainages, streams, creeks, lakes, rivers, vernal pools, wetlands, etc.) onsite or immediately adjacent to the Project? If yes, will any work take place in them or near them?**

*There are watercourses on the property over 50 ft from the cultivation area and all structures. A minimum of 50-foot development setbacks will be maintained from all waterways.*

- **Will there be a loss of any wetland or streamside vegetation? If yes, describe where total area and type of vegetation lost.**

*No streamside vegetation will need to be removed for the project's development; the project is a minimum of 50 feet from all waterways and protects riparian areas.*

- **Describe any site or buildings that have archaeological or historical significance.**

*There are no known sites of archaeological or historical significance.*

*\*Please see the attached archeological report for further details.*

- **What are the slopes of the cultivation site?**

*During phase 1, the cultivation area is relatively flat, between 0-15%. During Phase 2, grading will occur to achieve a maximum of 10% grade in all cultivation areas and 0%-3% for all buildings. Area A and B slopes are around 9-10% and will be graded to a 6% even plane. Area C is 2 -2.5% and will be graded flat (0-1%) for building area and 3%, creating an even plane for the remainder of the site. Area D is 4-6% and will be graded to an even plane at 6%.*

- **Describe the soils found at the site and their potential for landslides, erosion, lateral spreading, subsidence, liquefaction, or collapse.**

*The soils on this property are classified as Maymen-Estel-Snook, mainly composed of weathered shale and sandstone, which contributes well-drained soil with low permeability and a medium runoff classification. This soil is optimal for cultivation in various agricultural applications, including cannabis.*

- **Describe methods to be taken to reduce greenhouse gases.**

*During phase 1, Highland Farms will use a limited amount of equipment to produce low emissions and offset emissions by planting native vegetation surrounding the cultivation area. Highland Farms will implement sustainable farming models that include out-of-season cover cropping and inter-cropping with beneficial plants.*

*In addition, during Phase 2, Highland Farms will install a robust solar system to reduce greenhouse gasses.*

- **Will solid waste be produced? If yes, how will it be disposed of?**

*Highland Farms will produce some solid waste. Any solid waste that cannot be composted or recycled will be disposed of at the Lake County Integrated Waste Management facility closest to the proposed project, Eastlake Landfill. Highland Farms anticipates one solid waste pick-up per week with a maximum of two pick-ups per week during peak season.*

- **Will hazardous waste be produced? If yes, how will it be disposed of?**

*No hazardous waste will be produced as a result of this project.*

- **How will vegetative waste be managed?**

*Vegetative waste will be composted within the designated composting area and used as fertilizer in subsequent farming phases of the project. Any non-compostable disposable plant matter will be rendered unusable and disposed of off-site per CDFA/DCC regulations.*

- **How will growth medium waste be managed?**

*In-ground planting will be used as the method for outdoor cultivation. A growth medium comprised of soil, peat, and coco from the greenhouse will be mixed within the composting area and used in subsequent outdoor plantings.*



- **Will any material be taken to a landfill? If yes, which one and how much material is anticipated?**

*Solid waste materials consistent with regular business waste/trash will be taken to the Eastlake Landfill every week at an average of two deliveries per week during peak season and once per week. Waste material will be transferred using two to three (2-3) 2-yard dumpsters. All trash and debris containing any cannabis waste material that is non-compostable will be rendered legally unusable and stored within a closed, locked receptacle until adequately disposed of per CDFA/DCC and County regulations.*

- **Describe the existing drainage patterns on the site and how they may be alternated, and to what degree as a result of this Project.**

*Highland Farms has worked with Summit Engineering to develop a Civil Plan that protects the natural landscapes and preserves existing drainage patterns. There will be no alterations specifically proposed, and due to the low slope of the land, the proposed project will not change any existing drainage patterns.*

*\*See attached grading plan for details*

- **What Best Management Practices (BMPs) or measures will be implemented in order to prevent erosion and impacts to water quality?**

*Native vegetation being maintained within the minimum 50 ft. setbacks from all watercourses.*

*Straw wattles will also be implemented around the entire cultivation area to buffer runoff.*

- **Is wastewater treatment required for the Project? If yes, what is the source?**

*During Phase 1, Highland Farms will use portable restrooms supplied and serviced by an authorized third-party vendor.*

*During Phase 2, two new septic systems will be implemented for the restrooms located within the processing buildings (E&I).*

*\*See site plan for details*

- **Describe how this Project is consistent with the County's General Plan and Zoning Ordinance.**

*Highland Farms is zoned (RL), approved by the cannabis zoning ordinance. Additionally, the general plan and zoning ordinance sections pertaining to cannabis cultivation were referenced throughout the design phase and consistent with Civil documents prepared by Summit Engineering. Highland Farms maintains the appropriate setback requirements for sensitive areas designated by the County of Lake, including the "Farmland Protection Zone." Highland Farms will adhere to the General Plan and Zoning Ordinance throughout construction, implementation, and operations.*

- **Describe the level and frequency of noise or vibration that will be generated from this Project.**

*Short-term increases in ambient noise levels could be expected during the construction phases. Therefore, construction hours are limited to 7:30 a.m. to 6:00 p.m., Monday through Saturday. Deliveries and pick-ups are limited to 9:00 a.m. – 7:00 p.m. Monday – Saturday and 12:00 p.m. – 5:00 p.m. on Sunday. In addition, the Project is not located near any existing*

*residences or commercial businesses. The property is situated on private contiguous parcels totaling over 500 acres.*

- **Describe what measures have been taken to maintain or improve the level of service for the appropriate fire district and CalFire.**

*Highland Farms will maintain the land by helping to reduce the fuel load for fires. Highland Farms will remove the underbrush and clear downed and dead material within the area surrounding the cultivation and elsewhere on the property as needed.*

*Highland Farms will coordinate and work with Cal-Fire on an ongoing basis to implement best practices for land management. Irrigation water tanks will be available onsite for fire suppression if needed. A separate 2,500-gallon NFPA-rated tank will be available for Cal Fire to use in the case of an emergency.*

*After UP 20-96's building permits are approved, the driveway leading to the cultivation area will be improved to comply with all necessary 4290 standards.*

- **How is this site accessed?**

*The parcel's central access is located from a turning 1.5 miles west of Highland Springs Rd. An additional emergency exit is located 1 mile south of Vernal Dr and Amber Ridge Ct., in Lakeport, CA.*

- **Describe the amount of traffic the Project will generate?**

*During the height of the cultivation season, mainly planting and harvest daily employee trips are anticipated to be between 35 and 52 visits during peak operation (April to November) and between 10-25 during regular operation December to March). The total impact is about*

*the equivalent of 5-6 new single-family dwellings (which averages 9.55 average daily trips according to the "International Transportation Engineer's manual," 9th edition). Highland Farms will support employee rideshares and carpooling and provide incentives for such activities.*

- **Are there any road improvements that would be required? If yes, please provide specs (type of materials and dimensions)**

*The brush overgrowth on the sides will be cut back as general maintenance. Once construction permits are approved, a six-inch layer of crushed rock/gravel will be applied to the private access road in compliance with 4290 standards reducing dust and increasing road durability. Once construction permits are approved, Highland Farms will improve the approach from Highland Springs Rd. and straighten a short section at the end of the existing road for more direct access to the buildings. Additionally, all existing road crossing culverts will be upgraded and improved during phase 2. An additional culvert will be added for access between areas A and B.*

- **Describe if this Project will result in increased traffic hazards to motor vehicles, bicyclists, or pedestrians?**

*Highland Farms will not increase traffic hazards and will educate all employees to adhere to County imposed speed limits on all public roadways. Highland Farms will set a 15-mile-per-hour speed limit on the private driveway to avoid increasing traffic hazards. Highland Farms does not pose a high risk for traffic hazards. Highland Farms maintains daily traffic patterns similar to that of 5-6 average households located on over 500 acres, with the peak number of vehicles commuting on a seasonal basis.*

- **Are greenhouses or other accessory structures proposed? If yes, what are the dimensions of the structures and materials/colors they will be constructed out of?**

*Building H, I, J are contiguous single-story structures (up to 30' tall) measuring 360' x 296' – 1590 ft<sup>2</sup> (for loading zone) = 104,970 ft<sup>2</sup>; the nursery portion of the greenhouse building (J) is 100' x 296' = 29,600 ft<sup>2</sup> while the mixed-light cultivation portion of the greenhouse building (H) is roughly 154' x 296' – 90 ft<sup>2</sup> = 47,270 ft<sup>2</sup>. Attached to the greenhouse is a single-story metal processing facility (I) measuring 100' x 281' = 28,100 ft<sup>2</sup>. In addition, there is a two-story (up to 30 ft. tall) processing facility (E) 100' x 60' = 12,000 ft<sup>2</sup>. The total proposed area equals 116,970 ft<sup>2</sup> including the second story of buildings (E).*

*The material used for the exterior walls in the greenhouses and the metal buildings are insulated metal panels (IMP) in either surrey beige or sandstone that blend well with the natural environment. No light can exit through the sidewalls of the greenhouse. The greenhouse roof is an 8mm twin-wall polycarbonate material.*

*\*See maps and attached spec. sheet for detail*

- **What sources of energy will be used?**

*Highland Farms will achieve power requirements throughout phase 1 by utilizing (3) 25kw propane generators and solar panels. All generators will be purchased new or gently used and meet or perform below the maximum decibel requirement at the property line, as set forth by Lake County Zoning Ordinance Article 41, and shall meet all California Air Quality Resources Board regulations.*

*During Phase 2, a new electrical service will be applied for at the property once; Highland Farms will use an approximate combination of 75% PG&E, 25% Solar, and backup generators for supplementation. All electrical will be brought in through overhead lines as a*

*new service. Solar site power will be supplied by seventy-five (75) x 315w solar panels connected to twenty-four (24) 12v deep cycle batteries supplemented by three (3) 25kw and one (1) 40kw diesel backup generator. The rooftop solar design can be expanded to accommodate more than 600 panels to meet load requirements.*

*\*Please see attached load preliminary load calculations provided by Summit Engineering.*

## **PLANTING SCHEDULE**

### **Purpose**

The Planting Schedule is intended to portray the time of year and how much mature cannabis cultivation be cultivated on the premises. Due to the nature of the cannabis licensing processing times and farming being highly variable, all the timings estimated below are entirely contingent on market conditions and permitting process. The timing and planting schedules listed below are estimated to the best of the Applicant's ability. However, they may be changed at the Applicant's discretion or Lake County Planning Departments' request. The timing can vary, so these should be used as a roughly estimated time frame.

#### **I. Phase 1**

Highland Farms would like to begin cultivation for Phase 1 as soon as the project is deemed completed by the CDD. During phase 1, Highland Farms will cultivate in areas C and D.

If the project is deemed complete before February 2024, Highland Farms is prepared to begin cultivation in April 2024.

#### **II. Phase 2**

During Phase 2, Highland Farms will submit all plans required for grading and proposed building structures. Highland Farms will cultivate as listed above in phase 1 until all structures are implemented. During phase two, Highland Farms will cultivate outdoors in areas A, B, C, & D. Buildings H, I, J, and E will be utilized for cultivation, nursery, and processing.

Depending on market demands, the outdoor cultivation season will utilize both the auto-flower and full-term crops from early April until late November. The proposed greenhouse nursery will function year-round and use supplemental lighting.

## **AIR QUALITY MANAGEMENT PLAN**

### **Purpose**

This Air Quality Management Plan is intended to maintain the high-quality air in Lake County by managing the emissions of activities associated with commercial Cannabis and the off-site drift of odors. Information in this section will be pertinent to meeting the standards of Finding (1) in Section 51.4 (a) of the Lake County Zoning Ordinance, which protects the County's health, safety, and welfare of its residents. This Air Quality Management Plan will detail the mitigation techniques to lessen or remove the negative externalities concerning odor and air quality that stem from applicants' commercial cannabis cultivation. Additionally, sources of emissions and odors will be described, and the agent to contact for any air quality and odor problems will be provided in this section.

#### **I. Project Contact and Community Liaison**

The Community Liaison/Emergency Contact, Autumn Karcey, may be contacted at (530) 379-8588 or autumn@alchemy29.com. Ms. Karcey will be available to contact twenty-four hours a day, seven days a week, including holidays. Any residences within 1,000 feet of the property boundaries will receive this contact information directly before project implementation. The Community Liaison/Emergency Contacts will be responsible for responding to or employing someone to respond to all odor complaints 24 hours a day, seven days a week, including



holidays. It is highly encouraged that neighboring residents contact the above Community Liaison/Emergency Contacts to resolve any operational problems before reaching out to any County Officials/Staff.

When an odor complaint is received, the Community Liaison/Emergency Contacts will immediately take action to eliminate the odor as soon as possible. The first step will determine the odor source from which the complaint was received (cultivation area, processing facility, or other). Then the best mitigation method will be implemented depending on the source. Some mitigation methods include windscreens, upgrading odor control filtration systems/ventilation systems, or installing additional odor control equipment.

## **II. Emission Sources**

No single source or combined sources are expected to be harmful or detrimental to neighboring residences or the community of Lake County. However, the following sources are anticipated to be the most significant odor emitters, air pollutants and particulates from the cultivation operation.

Gasoline, propane, and diesel-powered equipment: The proposed cultivation operation will generate small amounts of carbon dioxide from the operation of generators used to power wells, small gasoline engines (tillers, weed eaters, lawnmowers, etc.), and from vehicular traffic associated with staff commuting. The generation of carbon dioxide is partially offset by cultivating cannabis plants and cover crops, which removes carbon dioxide in the air through photosynthesis.

Fugitive Dust: The proposed cultivation operation and associated construction activities may generate fugitive dust emissions through ground-disturbing activities, uncovered soil or compost piles, and vehicle or truck trips on unpaved roads. Fugitive dust will be controlled by wetting soils with a portable water tank and hose, delaying ground-disturbing activities until

site conditions are not windy, and eliminating soil stockpiles. Fugitive dust may also be generated temporarily during the construction period.

Odors: Cannabis cultivation can generate objectionable odors, mainly when the plants are mature/flowering. Additionally, the proposed processing facility's ventilation system, in which the processing of raw cannabis plant material from the proposed cultivation area occurs, is equipped with carbon filters/air scrubbers to mitigate odors emanating from the building.

### **III. Wind Erosion Control Measures during Grading and Construction:**

Fugitive dust will be controlled by wetting soils with a portable water tank and hose, delaying ground-disturbing activities until site conditions are not windy, and eliminating soil stockpiles. Protection of soil stockpile areas with impermeable covers will also be implemented. Access roads are either asphalt or gravel to reduce any erosion from vehicular traffic. Cover crops will be used to protect soils in distributed areas after grading is complete and in the cultivation area in the off-season. Highland Farms will limit the movement of any detached or loose soil.

Wildfire prevention will be achieved by maintaining the project grounds. The vegetation surrounding the cultivation area will be well-trimmed to reduce the fire fuel load. All gasoline and diesel-powered equipment will only be used by trained personnel and turned off and stored indoors when not in use.

### **IV. Mitigation Measures, Monitoring, and Maintenance**

To help reduce odor impacts from this project, native vegetation will be maintained on the property to mask off-site odor drift. In addition, the future processing facility, which will hold dried/drying cannabis plants, will install fans and carbon filters/air scrubbers to prevent odors from leaving the premises during all processing phases. The filtered air combined with the

distance from the processing facility to neighboring properties should help further mitigate the smell of Cannabis.

All air filtration and odor mitigation equipment will be inspected and maintained every other month of operational use by Highland Farm's personnel to ensure each one is running at optimal efficiency. In addition, all carbon filters/air scrubbers within the facilities will be replaced each quarter (or sooner) in accordance with Highland Farms' Standard Operating Procedures (SOP). Highland Farms' supervisory staff will log and maintain accurate records of the replacement and repairs to any odor mitigation system and retain records for at least three years. In addition, annually, Highland Farm's managerial staff will review all documentation regarding equipment's performance to determine further ways to improve odor mitigations. All data and information will be available to Lake County authorized personnel and Lake County Air Quality Management District officials upon request.

## **GROUNDS**

### **Purpose**

The Grounds section is intended to ensure that the project property is well maintained to prevent the buildup of pests and bacteria, eliminating the chance that potential problems could arise and create health problems or contaminate the environment. Information in this section will be pertinent to meeting the standards of Finding 1 in Section 51.4 (a) of the Lake County Zoning Ordinance, which protects its residents' health, safety, and welfare. The Grounds section will outline the proper storage and maintenance procedures implemented in conjunction with this project, keeping the premises clean and preventing any potential contamination from the equipment or substances used.

### **I. Storage Procedures**

All employees will be trained to use all equipment according to the manufacturer's procedures properly:

- Any products' pouring activities will occur on a non-permeable surface and within a secondary containment area to reduce the chances of a spill.
- Any chemicals and substances that are potentially hazardous or could create contamination problems will be stored at least 100 feet from all designated surface bodies of water.
- All chemicals and hazardous substances will be stored appropriately according to CDFA/DCC regulations.
- All products, including chemicals, fertilizers/nutrients, pesticides, petroleum products, and sanitation products, will be kept in their manufacturer's original containers/packaging when not in use and stored under cover inside dedicated cabinets

within 120' sq. ft. lockable storage sheds or within the secured processing facility (once constructed).

- Petroleum products are held separately in a covered area in California-approved containers with secondary spill containment.
- Sanitation products, dedicated spill containment, and cleanup equipment will be stored in their manufacturer's original containers/packaging within 120' sq. ft. lockable sheds or within the secured processing facility (once constructed).

*Please note: No effluent will occur as part of the proposed cultivation operation.*

## **II. Site Maintenance**

Trash and recycling receptacles will be provided on-site to dispose of waste properly. The designated grounds manager or maintenance personnel will visually sweep the parcels and collect any rubbish that must be appropriately disposed of at the end of each day. During this daily property check, all areas of vegetation will be inspected to ensure they are not overgrown, and all access roads and parking areas will be inspected to verify they are in good order. According to the county ordinance standards, the necessary equipment to maintain the property will be stored in the processing facility or maintenance shed.

Highland Farms' portable sanitation facilities will be appropriately cleaned and maintained by an authorized third-party vendor during phase 1. Once Phase 2's permits are approved, and construction commences, ADA-compliant restrooms will be built within the processing facility (E) and in the greenhouse's processing building (I).

Wildfire prevention will be achieved by maintaining the project grounds. The vegetation surrounding the cultivation area will be well-trimmed to reduce the fire fuel load. All gasoline and diesel-powered equipment will only be used by trained personnel and turned off and stored indoors when not in use.

### **III. Cal Fire 4290 and 4291 SRA requirements**

All requirements below shall be in accordance with the CDD's Building Division prior to starting the project.

- a) Property line setbacks for structures shall be a minimum of 30 feet.
- b) Per NFPA 1142, water storage tanks for commercial use will be steel or fiberglass (not plastic).
- c) The project's private driveway shall meet all 4290 standards approved by Cal Fire or authorized personnel.
- d) All-weather roadway surfaces are engineered and maintained to support the imposed load of fire apparatus weighing 75,000 lbs. at a minimum (including bridges). Private roads and driveway surfaces are engineered and maintained to support the 40,000 lb. vehicles at a minimum (including bridges). All roadways/driveways' surfaces do not have standing or flowing water that vehicles must travel through.
- e) The maximum roadway slope for any road is 16% and 20% if paved.
- f) Gate width is at a fourteen-foot minimum, and Gate setbacks are a minimum of 30 feet from a public roadway.
- g) Parking allows for a turnaround/hammerhead T or similar.
- h) A minimum fuel reduction of 100 feet of defensible space.

## **GRADING AND EROSION CONTROL BMPs**

### **Purpose**

This Grading and Erosion Control BMP section aims to highlight all the practices that will take place during the project's pre and post-construction phases. This section aims to outline all environmental areas that could be impacted and the mitigation strategies that will take place to lessen this impact. This section is broken down into pre-, during, and post-construction, which will take place during the project's life. The BMPs below are drafted by Summit Engineering and in compliance with the California Stormwater Quality Association BMP Handbook, The California State Water Quality Control Board BMPs, and the Lake County Water Resources Construction & Development BMPs.

### **I. Grading and Pre-Construction**

The entire cultivation area is minimally sloped to allow for in-ground planting. All Future grading will be submitted to CDD's Building Department for approval; please see the proposed cut and fill volumes referenced above.

The activities listed below will be implemented before the project begins. Once Project is complete and the CDD and permits are granted, the Applicant will start preparing erosion control measures around the outlined cultivation areas.

All Future grading is addressed in the signed grading plans provided by Summit Engineering and has been submitted with this application.

The activities listed below will be implemented before beginning the project. Once the project is complete and the CDD requests no further changes or clarifications, the applicant will

prepare the following erosion control measures around the outlined cultivation areas and the roadway.

- a) Fugitive dust will be controlled by wetting soils with a portable water tank and hose or by delaying ground-disturbing activities until site conditions are not windy.
- b) A 6" gravel/crushed rock will be freshly layered onto the roadway to mitigate any air quality impacts from dust/debris before any vehicular traffic related to the cultivation is permitted.
- c) Straw wattles will be placed around the cultivation area and along the driveway to prevent sediment runoff and erosion into natural drainages.
- d) If required, local jurisdictions having authority shall be notified by Highland Farm's personnel 72 hours before beginning any work.
- e) All necessary permits will be obtained before Highland Farms begins construction activities.

## **II. BMPs During Construction**

The construction management team will implement the BMPs listed below. As construction/groundwork will occur once the building permits have been approved, these BMPs will remain in effect until the entire Project's setup is completed.

Page 3 of Summit Engineering's Grading Plan: Lake County erosion and sediment control notes: Erosion and sediment control measures, as indicated on the plans, will include but not be limited to the following:

- a) Stabilized construction entrance and exit to reduce tracking of mud and dirt onto public roads by construction vehicles.
- b) Earth berms to divert runoffs away from the work area or to contain runoff within a specified area.



- c) Fiber rolls or silt fences below the toe of exposed and erodible slopes, downslope of exposed soil area, and as indicated on the plans.
- d) Cobble or riprap protection will be provided for storm drains, pipe outlets, or drainage ditches.
- e) Rock or fiber roll check dams to reduce the velocity of concentrated flow and encourage sediment settling.
- f) Earth berm sediment traps with rock filter outlets allow sediment in collected stormwater to settle out and be filtered.
- g) Drop inlet gravel filters to protect storm drain inlets that are subject to runoff from construction activities.
- h) If other measures are not in place, the protection of cut or fill slopes or borrow areas and soil stockpile areas with an impermeable cover.
- i) Moisture conditioning and track walking of all slopes and horizontal surfaces disturbed by construction operations with a heavy bulldozer to provide a firm and uniformly roughened surface free of loose material.
- j) Revegetation:
  - i. using approved seed mix as required by Lake County
  - ii. Mulch fiber
  - iii. Straw mulch and hydroseed
  - iv. Hydromulch
- k) Other stormwater management measures shall be utilized as field conditions require
- l) Vehicles will not be left staging/idling.
- m) Vehicles will only be parked on the existing roadway/driveway or areas that will be further developed as part of the Project.
- n) Petroleum products will be stored under cover and in California-approved containers within a secondary containment inside the storage area to prevent any spills.

- o) Due to the construction, a native grass seed mixture and certified weed-free straw mulch will be applied to all exposed areas.
- p) All solid waste generated from construction will be stored in bins with secure-fitting lids until disposed of at a Lake County Integrated Waste Management facility.
- q) All grading and construction will only occur from 7:30 a.m. to 6:00 p.m., Monday through Saturday.

#### **IV. Post Construction BMPs (maintained for the life of the project)**

All BMPs listed here will be implemented yearly before November 15th (or the beginning of the rainy season).

- a) To protect against hazardous spills:
  - i. All purchased products, including chemicals, fertilizers/nutrients, pesticides, petroleum products, and sanitation products, will all be kept in their manufacturer's original containers/packaging. When not in use, all fertilizers/nutrients and pesticides are stored in their manufacturer's original containers/packaging and undercover inside the secure sheds. Petroleum products are stored under cover and in State of California-approved containers with secondary containment and stored within the processing facilities. Sanitation products are stored in their manufacturer's original containers/packaging within a secure cabinet inside the processing facility. Spill containment and cleanup equipment will also be maintained within the processing facility. All employees will be trained to use all equipment according to the manufacturer's specifications. All pouring activities of any products will occur on gravel and within a secondary containment to reduce the chances of a spill.
- b) Straw wattles will remain around the cultivation area and be maintained or replaced as needed each year to prevent sediment runoff.

- c) Native vegetation around the proposed cultivation operation will be maintained as permanent erosion and sediment control measures. A Lake County-approved native grass seed mixture and certified weed-free straw mulch will be applied to all areas of exposed soil.
- d) Cover crops and straw mulching will be used within the cultivation areas during the off-season to promote soil health and erosion control.
- e) All solid waste that cannot be composted will be stored in bins with secure-fitting lids until disposed of at a Lake County Integrated Waste Management facility at least once a week during the cultivation season.

# **SECURITY MANAGEMENT PLAN**

## **Purpose**

This Security Management Plan (SMP) aims to minimize criminal activity, provide a safe and secure working environment, protect private property, and prevent environmental damage.

This SMP includes a description of the security measures proposed on the property to provide adequate security on the premises as approved by the Lake County Sheriff.

The three main goals of the security plan are to prevent unauthorized personnel access to the cultivation site, protect employees' physical safety, and prevent theft/loss of cannabis products. This SMP is also created to comply with emergency regulations for CDD/CDFA's Cal Cannabis Licensing program and the California Department of Public Health for cannabis businesses.

### **I. Secured Entry and Access**

The Project Property is accessed by private access driveway connecting to Highland Springs Rd. The total access roadway leading to the Project area is approximately 6,305 feet in length with a 6" layer of base gravel.

The access driveway to the parcel currently has a security gate at the property entrance with coded access and a Knox box to allow 24/7 access for emergency services. The gate entrance is two feet wider than the width of the traffic lane, with more than fourteen feet of unobstructed horizontal clearance and fifteen feet of unobstructed vertical clearance. The gate will be locked outside core operating business hours and whenever Highland Farms personnel are absent. Only approved Highland Farms staff and emergency service providers can open the gates on the project property.

During peak season, regular business hours are from 8 a.m. to 7 p.m., Monday – Sunday. Deliveries and pick-ups are limited to 9:00 a.m. – 7:00 p.m. Monday – Saturday and 12:00 p.m. – 5:00 p.m. on Sunday.

The fencing for this project will include a perimeter fence around the entire outdoor cultivation area. The cultivation area fence will be 6 feet tall and mounted with security cameras and a privacy mesh screen.

A 100-foot defensible vegetation space will be established around the proposed cultivation operation for fire protection and to provide clear visibility for security monitoring. A Motion-sensing alarm will be installed at the main gate's entrance to alert staff when someone/something has entered the premises. Motion-sensing security lights will be installed at the residence driveway and on the exterior of the proposed metal buildings. All lighting will be fully shielded, downward casting, and will not spill over onto other properties or the night sky.

Staff is instructed to immediately notify the Highland Farms supervisor on duty if suspicious activity is detected. The Highland Farms supervisor will investigate the suspicious activity for potential threats, issues, or concerns and immediately contact the Lake County Sheriff's Office if a threat is detected. If the active supervisor on duty is not a manager, the Highland Farms managerial staff will be contacted directly following the Lake County Sheriff's Office contact.

If a visitor arrives at the proposed cultivation operation via the main entrance during core operating hours, they will be greeted by a member of Highland Farms staff. After signing in, a staff member will verify the visitor's identification and escort them to the appropriate area for their visit (no visitors will be left unattended on site).

## **II. Theft Prevention**

All Highland Farm's staff are required to undergo a criminal background check. Visitors and staff are required to sign in and sign out and note the areas/tasks they worked on that day. Highland Farms will adhere to the California Cannabis Track-and-Trace (CCTT) inventory tracking and recording requirements. All staff members will be trained in the procedures of the CCTT system, and any cannabis movement will be reported through the CCTT system. At least two Highland Farms staff members will be designated to supervise all tasks with high potential for diversion/theft and document which staff member took part in each role. In case of diversion/theft, law enforcement, and the appropriate licensing authority will be notified within 24 hours of discovery.

## **III. Community Liaison and Emergency Contact**

The Community Liaison/Emergency Contact, Autumn Karcey, may be contacted at (530) 379-8588, [autumn@alchemy29.com](mailto:autumn@alchemy29.com) Ms. Karcey will be available to contact twenty-four hours a day, seven days a week, including holidays. The Community Liaison/Emergency Contact will be available through multiple sources, including this Use Permit, Lake County Officials/Staff, and the Lake County Sheriff's Office.

Highland Farms will encourage neighboring residents to contact the Community Liaison/Emergency Contact to resolve problems before contacting County Officials. If an active crime is committed, neighboring residents are encouraged to call the Lake County Sheriff's immediately and contact Community Liaison/Emergency Contact directly after. When a complaint is received, the Community Liaison/Emergency Contact will document the complainant, their contact information, and the reason for the complaint. The Community Liaison will then take action to resolve the issue as quickly and efficiently as possible and follow up with the complainant to update them on the measures being taken to resolve the issue

brought up. A summary of complaints/issues will be provided in Highland Farm's "Annual Performance Review Report."

#### **IV. Video Surveillance**

Highland Farms uses a closed-circuit television (CCTV) system with a minimum camera resolution of 1080p at a minimum of 30 frames per second to record activity in designated areas. All cameras will include motion sensors that are color capable, with all exterior cameras being rated I-66 waterproof and all interior cameras being moisture-proof. In addition, cameras monitoring the cultivation area will be equipped with thermal technology. The CCTV system feeds into a monitoring and recording station in the locked security shed, where video from the CCTV system is digitally recorded. Once the processing facility is completed, it will hold the monitoring and recording station for all the recorded video within a secured locked office. In addition, Highland Farms will obtain video management software that will integrate the cameras of the CCTV system to door alarms and will be equipped with a failure notification system that immediately notifies staff of any interruptions or failures. All cameras of the CCTV system operate continuously 24 hours a day, seven days a week, recording the current date and time on the feed. All recordings are kept for a minimum of ninety days and seven years for any corresponding reported incidents caught on tape. CCTV system will be connected to a backup generator system in the event of power failure.

Proposed camera placements can be found on the accompanying Security Site Plan. Areas that the CCTV system will cover include:

- a) Entryways to the property, cultivation areas, and the processing facility and greenhouse (once constructed)
- b) The perimeter of the cultivation/canopy areas
- c) The monitoring, recording station, and security room

- d) Interior of the Processing Facility and greenhouse (once built)
- e) Any location where mature cannabis is stored

## **STORMWATER MANAGEMENT PLAN**

### **Purpose**

This section works in accordance with the Erosion and Sediment Control plan detailed in Summit Engineering's stamped Grading Plans and Hydrological calculations (submitted with this application). The report describes the drainage improvements and stormwater conveyance systems associated with the proposed improvements at Highland Farms. The purpose of the drainage improvements is to provide protection from flooding, reduce maintenance and erosion damage, and size the post-construction stormwater runoff or Low Impact Development (LID) measures required by the County of Lake. The analysis includes; peak runoff calculations for 100-year storm events, sizing of stormwater conveyance systems, and sizing of LID measures.

### **I. Stormwater Management, Erosion, and Sediment Control Measures**

Highland Farms plans to construct building (E) which contains one (1) 100'x 60' prefabricated two-story (up to 30' tall) metal processing building totaling 12,000  $ft^2$  (6,000  $ft^2$  per floor). Area (F) includes three (3) water tanks; one (1) fifty-thousand gallon, one (1) sixty-five thousand gallons, and one (1) seventy-seven-thousand-gallon tank. Greenhouse Building (H)'s overall dimensions are 160' x 296' – 90  $ft^2$  (for Loading Zone) 47,270  $ft^2$ . Greenhouse nursery Building (J) overall dimensions are 100' x 296' = 29,600  $ft^2$  Area (I) includes one (1) 281' x 100' = 28,100  $ft^2$  single-story prefabricated metal Processing Building, mainly used for drying and storage. The total Proposed rooftop area, including roads and parking, equals approximately 162,100  $ft^2$ ; The total impervious footprint is roughly 0.007% of the project parcels. The outdoor canopy area



itself will not increase the impervious surface area of the Project Parcels because it is proposed as outdoor in-ground cultivation and will not increase the volume of runoff from the Project Site.

## **II. Erosion and Sediment Control Measures**

Highland Farms will maintain the naturally existing vegetated buffer between the project area, filtering any runoff and removing sediment that may become mobilized. Native vegetation around the cultivation area will be kept as a permanent erosion and sediment control measure. A Lake County-approved native grass seed mixture and certified weed-free straw mulch will be applied to all areas of exposed soil. Straw wattles will be installed around the cultivation area to prevent sediment movement from the cultivation site to natural surface water. Straw wattles will be maintained throughout the project's life. Highland Farm's Site Manager will conduct regular monitoring inspections to confirm that this operation complies with California Water Code. If regions of concentrated stormwater runoff begin to develop, additional stormwater control measures will be implemented to protect those areas and their outfalls. At the County's request, or if site characteristics change over time, the applicant will extend straw wattles to mitigate sediment movement.

- a) A visual monitoring inspection program will be implemented to check the following at a minimum frequency before each rain event:
  - i. Inspect water conveyance areas and stormwater drainage areas to identify spills, leaks, or uncontrolled pollutant sources.
  - ii. Follow all BMPs to identify whether they have been appropriately implemented and remain in adequate condition.
  - iii. Inspect any stormwater storage or containment areas and ensure the maintenance of an adequate freeboard.

- b) Apply straw mulch and cover crops to the cultivation area after each growing season to prevent erosion.
- c) Implement the use of Bioretention Facilities, Riprap Energy Dissipaters, “V” Ditches, and Swales to control the transportation of sediment, prevent erosion problems and maintain the quality of nearby surface water.
- d) All BPTC Measures will be completed by November 15th.
- e) If areas of concentrated stormwater runoff begin to develop, additional erosion and sediment control measures will be implemented.

During Construction, these BMPs will be implemented and maintained throughout the life of the Project:

- a) Straw wattles will be installed and maintained throughout the entire life of the proposed cultivation operation along the western and northern borders of the outdoor cultivation.
- b) Piled topsoil that is exposed will be covered with a tarp while not in use to maintain sediment control and reduce dust impacts.
- c) Gravel will be placed along all access roads to reduce exposed dirt.
- d) If required during the grading/construction phase, Highland Farms will incorporate fiber rolls, gravel bags, silt fence, hydroseeding, and erosion control mats and follow the Storm Water Pollution Prevention Plan (SWPPP) to protect against contaminated stormwater runoff.

### **III. Regulatory Compliance (Stormwater)**

Highland Farms proposed cannabis cultivation operation is enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (Order No. WQ 2019-0001-DWQ) as a Tier 2 Low-Risk Discharger (WDID: 5S17CC429031). In addition, a Site Management Plan was developed for the proposed commercial cannabis cultivation operation. It will be

reviewed by the Central Valley Water Board's Cannabis Cultivation Waste Discharge Regulatory Program before cultivation. Highland Farms will submit annual reports to Central Valley Water Board.

As mandated by the development standards in Article 27, Section (at), all development will be located at least 50 feet from any surface water, and all pesticides and fertilizers will be stored at a minimum of 100 feet from all surface water; this includes the unnamed seasonal creeks identified on the property.

Stormwater runoff from the proposed cultivation operation will not discharge into any Lake County-maintained drainage system. Along with the erosion and sediment control measures, the BMPs will not increase the volume of stormwater discharge from the project's property onto adjacent properties or flood elevations downstream. A Storm Water Pollution Protection Plan (SWPPP) will be in place during the grading and construction phases to ensure no sediment or erosion is released during rain events.

#### **IV. Monitoring and Reporting Program**

The following are the Monitoring and Reporting Requirements for Highland Farm's proposed cannabis cultivation operation from the Cannabis General Order:

- a) Winterization Measures Implementation
- b) Tier Status Confirmation
- c) Third-Party Identification (if applicable)
- d) Nitrogen Application (monthly and annual total)

An Annual Report shall be submitted to the State Water Quality Control Board by March 1<sup>st</sup> of each year. The Annual Report shall include the following:

- a) Facility Status, Site Maintenance Status, and Storm Water Runoff Monitoring.
- b) The name and contact information of the person responsible for operation, maintenance, and monitoring.

A letter transmittal shall accompany each annual report; the letter shall summarize the number and severity of violations found during the reporting period and actions taken or planned to correct and prevent any future violations. Highland Farms will adhere to all monitoring requirements to maintain compliance with the Cannabis General Order and submit a copy of the Annual Monitoring Report to the County upon request.

#### **V. Cannabis Vegetative Material Waste / Growing Medium Management**

Depending on the growing methods for the year, it is estimated that around 14,400 lbs. of vegetative waste will be generated annually. However, to reduce waste and recycle nutrients, all vegetative waste, even if more than 14,400 lbs., will either be mulched within the composting area or chipped and stored to be used when soil cover is needed. All solid waste will be held in bins with secure-fitting lids until disposed of at a Lake County Integrated Waste Management facility at least once a week during the cultivation season. The Eastlake Landfill is the closest Lake County Integrated Waste Management facility to the proposed cultivation operation.

Highland Farms proposes to plant in the ground during Phases 1 and 2. Additional growing approved amendments will be purchased as needed between seasons. All applicable fertilizers and recyclable vegetative waste will be composted on-site and used to supplement the existing soil.

# **WATER USE MANAGEMENT PLAN**

## **Purpose**

This Water Use Management Plan is designed to conserve Lake County's water resources and ensure that the proposed cultivation operation's water use practices comply with all applicable County, State, and Federal regulations. This Water Use Management Plan focuses on designing a water-efficient delivery system and irrigation techniques and accurately monitoring and reporting water use practices. The Water Use Plan aims to provide details for all the water sources on the property, how they will be used, and their amount of use.

## **I. Water Sources and Irrigation**

Water is provided to Highland Farm's proposed cultivation operation from groundwater wells. Well, # 1 is located at N 38.05636 and W -122.05537. The 12/15/2020 well test reported 75 GPM over a 4hr test. The well depth is 176 feet, and the pump is set at 160 feet with the static water level at 48 feet. In the first five minutes, the initial drawdown was to 64 feet and then down to 92 feet over the remainder of the 4-hour test. It recovered to 61 feet forty-five minutes after test completion. Well, # 2 is located at N 38.93982 and W -122.93969. The 12/17/2021 well Test reported 129 GPM over a 4hr test. The well depth is 140 feet, and the pump is set at 100 feet with a static water level of 54 feet. The water level stabilized at 73 feet after 30 minutes of pumping, and the level remained between 73 and 74 feet for the entire 4-hour test. The water level returned to 54 feet thirteen minutes after test completion. Well, # 3 is located at N 38.94015 and W -122.92661. The 12/17/2021 well Test reported 132 GPM over a 4hr test. The well depth is 200 feet, and the pump is set at 160 feet with a static water level of 52 feet. The water level stabilized at 107 feet after 30 minutes of pumping, and the level remained between 107 and 109 feet for the entire 4-hour test. The water level returned to 52 feet nine minutes after test completion.

There will be twenty-eight (28) 5,000-gallon plastic water tanks during phase 1. During phase 2, after the buildings have been added to the site, three (3) structurally engineered water tanks will be used. We estimate the tanks will potentially include (1) 50,000-gallon tank, one (1) 65,000-gallon tank, and one (1) 77,000-gallon tank; Tanks are NFPA rated and constructed from either steel or fiberglass.

A meter compliant with Title 23, Division 3, Chapter 2.7 of the California Code of Regulations will be installed and attached to the water system to record continuous data. It will be maintained for a 5-year duration minimum. All records will be available to all interested state and county departments upon request.

The 2 meters required to be installed on the well will be:

- a) A totalizing well meter that continuously measures the total water output. Highland Farms will use a GPI G2 Series meter or equivalent, depending on the well configuration.
- b) A continuously recording water level monitor. The Applicant will use the Well Watch 670 or equivalent.

*\*If the hired professional installation company recommends different meters, the new well meter specifications will be supplied to water resources. Please see the attached product sheet for current specifications.*

## **II. Projected Water Use**

Due to the variations in cultivation styles and the federally illegal status of Cannabis, the industry is far behind other crops in water use studies. While few exist, it is probable that the resulting water use data from these studies are only accurate to a certain degree, particularly as water use is highly dependent upon the natural conditions of the cultivation's location.

According to Bauer et al. (2015), a study of water use in Northern California determined that

cannabis plants used approximately 22.7 liters per day, translating to roughly 5.99 gallons per day. It has also been documented through Cal Cannabis's Final Programmatic Environmental Impact Report that outdoor Cannabis uses between 25-35 inches per year, based on Hammon et al. (2015). The PEIR also stated that it is comparable to other crops such as corn, tomatoes, alfalfa, and hops. However, projecting cannabis water use in line with that of tomatoes (20 inches per year) would likely be the absolute minimum as the few water use studies published have been more in line with 25-35 inches per year.

It is almost certain that water use will differ between projects, based on soil type, irrigation method, and growing methodology, among other factors; however, through well monitoring, these estimates can be replaced with much more robust numbers in the future. For this Water Use Management Plan, the following table below will display water use estimates based on the range of probable outcomes starting at 20 inches (a likely best-case scenario) up to 35 inches (a possible worst-case scenario) of water per year and a maximum total.

We would like to note that the general water use numbers are commonly given per acre based on a full canopy crop, not including aiseways; the crop planted during Phase 1 will run in 60" rows with 36" aisles at full capacity; this will likely result in a much-reduced water use per acre to levels below those regularly reported for Cannabis. The calculations below are based on a full canopy crop to show maximum potential usage for each scenario using the entire fenced-in area, not considering aiseways. The average (27.5 inches) is the projected water use total for the Project until further data is captured. While it is not optimal from a cultivation standpoint, due to the fluctuation in market pricing and current County tax rates, the Applicant may decide to plant the entire fenced-in area leaving no aiseways; the calculations are based on a maximum amount of usage per acre.

**III. Methodology:**

Approximately 27,154 gallons of water equals one inch of water per year for one acre (USGS). The gallons per inch per acre were multiplied by the number of inches to achieve the total amount of gallons. A foot is 12 inches; therefore, one-acre foot of water would be approximately 325,850 gallons of water, with inches yielding a value of 814,620 gallons per acre for outdoor crop canopy utilizing 30% of the total fenced-in area.

**IV. Phase 1:**

Depending on market conditions, Highland Farms is prepared to plant its first crop, an auto-flowering variety planted in April and harvested in June, followed by a full-term crop planted in mid-July and harvested in October.

<b>Outdoor Area Estimated Water Use Total for Project in Gallons Phase 1</b>	
<i>30 Inches</i>	4,516,933

<b>Outdoor Area Monthly Water Use Estimates in Gallons Phase 1 at 30% canopy coverage of total fenced-in area</b>							
April	May	June	July	Aug	Sept	Oct	Nov
281,330	542,241	656,152	749,928	749,928	749,928	542,241	246,185



## V. Phase 2:

Depending on market conditions, during Phase 2, Highland Farms intends to cultivate two (2) outdoor crops per season; the first crop is an auto-flowering variety planted in April and harvested in June, followed by a full-term crop planted in mid-July and harvested in October.

The greenhouse building's (H & J) water usage shown herein reflects the maximum potential water use per year and month. The nursery and mixed-light greenhouse water usage estimates below do not show Highland Farms' intention to use irrigation water collection gutters to collect and reuse fertilizer drain water consistently. Instead, the data shows the maximum possible water usage based on the same formula as the outdoor crop, with a Crop coverage of roughly 70%.

Highland Farms intends to use all possible means to reduce water usage; the collection and reuse of fertilizer drain water are common in professional greenhouse operations worldwide and will significantly reduce water use. Water fed to the crops is collected in linear gutters underneath the plants; this fertilizer drain water is collected, sterilized, and reintroduced to the irrigation system. It is a closed-loop continuous system that reuses the initial 20-30% drain water volume from the crop inputs. The following tables do not reflect this system as we want to show the maximum amount of water used by the crop, therefore offering a theoretical usage maximum per acre that will not be exceeded at any point during the life of the Project.

<b>Outdoor Area Estimated Water Use Total for Project in Gallons UP 20-96 Stage</b>	
<i>30 Inches</i>	4,020,964

<b>Outdoor Area Monthly Water Use Estimates in Gallons UP 20-96 30% canopy coverage of total fenced area</b>							
April	May	June	July	Aug	Sept	Oct	Nov
250,384	482,595	583,975	667,436	667,436	667,436	482,595	219,105

<b>Nursery Area Estimated Water Use Total for Project in Gallons Phase Two: UP 20-96</b>	
<i>30 Inches</i>	387,759

<b>Nursery Building (J) Maximum Monthly Water Use Estimates Project in Gallons UP 20-96 70% canopy coverage of total Interior square footage</b>							
January	February	March	April	May	June	July	August
32,313	32,313	32,313	32,313	32,313	32,313	32,313	32,313
September	October	November	December				
32,313	32,313	32,313	32,313				

<b>Greenhouse (H) Area Estimated Water Use Total for Project in Gallons Phase Two: UP 20-96</b>	
<i>30 Inches</i>	621,555

<b>Greenhouse (H) Area Maximum Monthly Water Use Estimates Project in Gallons</b>							
<b>UP 20-96 70% canopy coverage of total Interior square footage</b>							
January	February	March	April	May	June	July	August
51,796	51,796	51,796	51,796	51,796	51,796	51,796	51,796
September	October	November	December				
51,796	51,796	51,796	51,796				

<b>Processing Building (I) Area Estimated Water Use Total for Project in Gallons</b>	
<b>Phase Two: UP 20-96</b>	
*2012 water consumption survey	792,000

<b>Processing Building (I) Maximum Monthly Water Use Estimates Project in Gallons</b>							
<b>UP 20-96 Phase Two</b>							
January	February	March	April	May	June	July	August
66,000	66,000	66,000	66,000	66,000	66,000	66,000	66,000
September	October	November	December				
66,000	66,000	66,000	66,000				

*\*Estimates for the demand of buildings (E and I) are based on the 2012 water consumption survey performed by the US Energy Information Administration's Commercial Building Energy Consumption Survey. Due to seasonality and low occupancy, the facility's water consumption is anticipated to be significantly less.*

<b>Processing Building (E) Area Estimated Water Use Total for Project in Gallons</b>	
<b>Phase Two: UP 20-96</b>	
*2012 water consumption survey	432,000

<b>Processing Building I Maximum Monthly Water Use Estimates Project in Gallons UP 20-96</b>							
<b>Phase Two</b>							
January	February	March	April	May	June	July	August
36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000
September	October	November	December				
36,000	36,000	36,000	36,000				

<b>Project Estimated Domestic Water Use Total for Project in Gallons</b>	
<b>Phase Two: UP 20-96</b>	
78 GPCD Lake County Water Demand Forecast	1,127,280

<b>Domestic Consumption Maximum Monthly Water Use Estimates Project in Gallons UP 20-96</b>							
<b>Phase Two</b>							
January	February	March	April	May	June	July	August
52,210	52,210	52,210	123,747	123,747	123,747	123,747	123,747
September	October	November	December				
123,747	123,747	52,210	52,210				

## **VI. Water Conservation**

In accordance with the State Water Quality Control Board Cannabis General Order, Highland Farms will implement the following BMPs and mitigation techniques to help conserve water throughout the Project's life.

- a) A visual monitoring inspection program will be implemented to check all water conveyance areas and stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources at a minimum before each rain event.
- b) Highland Farms will use micro-drip irrigation, which delivers only what the plants can consume without creating runoff.
- c) Mulch will be applied to any exposed soil inside the cultivation area without ground cover to conserve soil moisture within the growing area.
- d) Plastic covering will be used in all rows containing cannabis plants to help increase moisture retention in the soil.
- e) An inline water meter will be installed on the dripline's main supply line and the water storage tanks to determine where and how much water is used. Staff will record and log all data to be reviewed to determine the project's water use and potential system issues.
- f) The water storage tanks will be equipped with float valves to prevent overflow and runoff of irrigation water when full. Additionally, safety valves will be fitted to supply lines if water flow needs to be stopped in an emergency.
- g) Highland Farms will install irrigation water re-capture systems in the greenhouse and nursery; this system collects 100% of the irrigation water after it has drained through the root zone. This water is then sterilized with UV light and reintroduced back into the central irrigation system.

\*Please see Water Availability Analysis (WAA) provided by Summit Engineering submitted with this application.

## **DROUGHT MANAGEMENT PLAN**

### **Regulatory Compliance:**

Highland Farms is registered with the State Water Board's *Cannabis Cultivation Policy-Principals and Guidelines for Cannabis Cultivation (Policy)* and the *General Requirements for Discharges of Waste Associated with Cannabis Cultivations Activities*, Order No. WQ-2019-001-DWQ (General Order). Highland Farms employees will comply with all necessary rules and regulations set forth by the Policy, General Order, NOA, and the Monitoring and Reporting Program (MRP). In addition, Highland Farms will comply with all local regulatory compliance set forth by the County of Lake.

Based on the State Water Board's assessment, the proposed cannabis cultivation for Highland Farms, located at 5200 Bartlett Springs Rd Lucerne, has been classified as Tier 2, low risk.

### **Additional Drought Management Practices:**

Independent of meeting CA State and County of Lake regulatory requirements, Highland Farms, is committed to the long-term sustainability of our farm and our surrounding neighbor's water resources. Highland Farms plans to implement drought management practices that reduce water waste, limit consumption and evaporation, and minimize runoff.

All employees will be trained sufficiently in Highland Farms Standard Operating Procedures (SOPs) pertaining to drought management. These SOPs will be reviewed and updated annually, taking into account any regulatory compliance and

amendments required by the state of California or local jurisdictions. In addition, Highland Farms will review and assess both present and historical water data at the county and state levels, along with our own MRP, to make informed decisions about upcoming farming seasons. All employees will undergo ongoing training as the SOPs are updated annually.

Highland Farms will strategically plant seasonal drought-tolerant cover crops using organic soil amendments and composts to help the farm adapt to and recover from drought conditions. This process will significantly reduce water use in subsequent farming seasons due to a significant increase in soil organic matter, resulting in higher concentrations of water retention and overall soil health. Highland Farms plans to build an organic farm that integrates cultural, biological, and mechanical means to conserve biodiversity, cycle its resources and foster an ecological balance in all aspects of the farm.

The water usage assumptions for the outdoor portion of Highland Farms operations are based on a 100% canopy calculation as a not to exceed model. This effectively calculates water usage for the maximum allowable canopy. However, this does not reflect the current cultivation plan. This model was implemented when the County charged licensed cultivators' tax on 100% of the fenced-in project area. Since then, the taxes have been adjusted to encompass only the cultivation canopy area allowing for more sustainable farming practices, including less water use. Highland Farms plans on utilizing only 40% of the available canopy area. Projected annual water usage is expected not to exceed half of the stated yearly usage.

**Drought Risk Reduction Strategies:**

Highland Farms is dedicated to responsible water use on its farm. Part of this responsibility includes small but meaningful improvements to increase drought

resilience and preparedness. The first strategy is to utilize forecasting tools via data from weather stations in the California Irrigation Management Information System (CIMIS) and Highland Farms onsite state-of-the-art Davis Weather Stations to make informed production decisions during and before the crop cycle.

Early efforts of land maintenance to protect the farm and surrounding community will be conducted to minimize dry fuels related to drought conditions. These efforts include maintaining a well-manicured surrounding forested area. We aim to work with our neighbors to ensure the long-term sustainability of our ecosystem by reducing bark beetle infestations by removing any dead/dying affected trees.

Highland Farms will utilize Gro-point soil-based moisture monitoring systems throughout the farm. This technology allows farmers to irrigate smaller crop areas based on real-time data within each section. The front wetting measurement will indicate when the water has reached the bottom of the probe during irrigation, allowing irrigation to stop at the optimal time to ensure that only the water needed is applied. The Gro-point system alone has been shown to reduce irrigation water use by 20%. They significantly reduce the amount of irrigation water wasted on crops in traditional methods.





Highland Farms will invest in organic improvements and actions that enhance the soil's moisture retention capacity in conjunction with highly reliable groundwater sources operated well below known capabilities.

A variety of management practices that increase soil organic matter while reducing soil-moisture loss—such as no-till or reduced tillage farming systems, crop area mulching, and use of seasonal drought-tolerant cover crops, will help the farm adapt to drought risk. Once licensed, Highland Farms will apply for an OCal “comparable to organic” certification with the California Department of Food and Agriculture. OCal is a statewide certification program that establishes and enforces comparable-to-organic cannabis standards. The OCal Program will ensure that cannabis products bearing the OCal seal have been certified to consistent, uniform standards comparable to the National Organic Program.

The farm will minimize water loss to evaporation or runoff using high-efficiency micro drip pulse irrigation technology and low-energy precision application systems. Our pre-blended organic slow-release amendments and proven fully organic compost blends eliminate the need for drain-to-waste irrigation practices.

A system of water storage tanks will hold reserve water for the project. Management of these systems will preserve available withdrawals and help conserve water. Highland Farms' staff will conduct thorough and routine inspections of all irrigation systems and monitor usage volumes while preventing and addressing malfunctions, leaks, and potential for waste.

Windbreaks and shading techniques will reduce cross breezes, heat, and light intensity resulting in reduced crop temperatures and less moisture loss due to evaporation. Onsite nursery and greenhouse systems will be designed to capture and reuse any available runoff.

### **Drought Management Strategies:**

In the event of declared dry or drought conditions, Highland Farms will take progressive action as the situation moves from “Abnormally Dry” (D0) to “Exceptional Drought” (D4) along the U.S. Drought Monitor Classification Scheme. The farm will be dedicated to implementing strategies that reduce the impact during dry/drought conditions. Before any drought, Highland Farms will determine plant type, planting time, and crop cycles using information obtained through monitoring and forecasting. Upon declaration of “Abnormally Dry” (D0) and “Moderate Drought” (D1) periods, in-season staff will be alerted to dry/drought conditions and provide education to ensure water conservation practices are adhered to. As conditions worsen and “Severe Drought” (D2) and “Extreme Drought” (D3) conditions are declared, Highland Farms will respond by implementing voluntary water-use restrictions, reserving water for essential use only. If “Exceptional Drought” (D4) conditions and catastrophic shortages are eminent, the farm can reduce overall water consumption, minimize irrigation times, and evaluate strategies for selective watering.

### **Drought Recovery Strategies:**

Highland Farms’ use of organic amendments and drought-tolerant cover crops will help the farm preserve soil and nutrients after dry years. Using a mixture of plants with different but complementary root systems prevents erosion and promotes moisture retention in the soil. Highland Farms will combine drought-tolerant perennials and grasses to cover the ground annually, increasing the soil's organic matter. Organic matter encompasses soil microbes, fungi, crop residues, manures, and molecules from decomposed plants, drastically improving the soil's hydration capacity. Wildcat Farm’s investment in the soil will ensure success and long-term

sustainability by providing the resources necessary to recover and continue farming even after an exceptional drought year.

**Looking Forward:**

Regarding regulations, licensed commercial cannabis cultivation has the strictest compliance pertaining to any crop. Alternatively, this has given the state and its local jurisdictions a unique advantage by providing valuable information regarding water usage not found in traditional agricultural practices. We look forward to participating in this data collaboration with the County and state to make informed, scientific-based decisions for our farm, neighbors, and community.

According to State Water Resources Control Board Resolution NO. 2016-0005 Sec 920 (a) A supplemental statement shall be filed annually by July 1 after the close of the twelve-month reporting period triennially or promptly if there is a change in the name or address of the person diverting water or more frequently as directed under section 917.

As an example, the completed supplemental statement form for Highland Farms shall include the following information:

- 1) *The name(s), address(es), and other ownership information for the diverter record with the board.*
  
- 2) *The type of water right being claimed for the water diverted under the statement.*

- 3) *The maximum diversion rate achieved at any time during each month, if available.*
  - 4) *The amount of water directly diverted and collected to storage each month and the total annual amount diverted. Each month must contain an entry. If no diversion occurred, a "0" should be entered.*
  - 5) *A description of the diversion works, including the type of diversion and capacity of direct diversion and/or storage facility.*
  - 6) *Information on the device or method used to calculate the amount of water diverted.*
  - 7) *The amount of water beneficially used in each month and the total annual amount beneficially used. Each month must contain an entry. If no beneficial use occurred in a given month, a "0" should be entered.*
  - 8) *The purpose(s) for which the water was diverted and used; Use the information to be provided includes:*
    - a) *irrigation, including crop type and acreage.*
    - b) *frost protection, including acres covered.*
    - c) *heat control, including acres covered.*
    - d) *industrial, including the type of activity.*
- ADOPTED TEXT OF EMERGENCY REGULATION*
- e) *stock watering, including number and type of animals.*
  - f) *municipal, including the approximate population served and seven-digit public water system number or another identifier.*

- g) *domestic, including the number of persons served, lawn or garden area, and seven-digit public water system number or another identifier, if applicable.*
  - h) *power generation, including installed capacity in kilowatts, megawatts, or horsepower.*
  - i) *recreational, including boating, fishing, or other water sports.*
  - j) *any additional uses not named above, including environmental use.*
- 9) *Any changes in the other information contained in the preceding statement.*
- 10) *Report of water transfers during the twelve-month reporting period, including transfer dates and approving agency.*
- 11) *Report of transferred contract water, including contract agency, contract number, source, amount of contract water in acre-feet, and projected water use in the upcoming year.*
- a) *Water diversion measurement, either a direct diversion or diversion to storage, including the type of device(s) used, additional technology used, who installed the device(s), and any alternative method(s) used in measuring the water diversion.*
  - b) *If a substitute or alternative water supply, such as groundwater, contract water, or recycled water, is being used in lieu of surface water to be reported under a statement, the report should indicate the source and amount of substitute or alternative water used and the amount of surface water offset, on a monthly basis.*
  - c) *If the use of an alternative supply of water or any water conservation efforts has resulted in a cessation or reduction in use, the report should include a description of the conservation efforts employed and indicate the extent and*

*monthly amount of the reduction in water use due to these water conservation efforts.*

*Authority: Sections 348, subdivision (a), 1058, 1840, and 10581841, Water Code.*

*Reference: Sections 348, subdivision (a), 1010, 1011, 1011.5, 5100, 5101, 5103, and 5104, Water Code.*



### G2 SERIES (PRECISION TURBINE METERS)

A full line of FLOMEC® G2 Series Precision Turbine Meters are available in a variety of housing materials. Rugged and dependable, the G2 Series offers:

- Stainless Steel for most chemicals and fuel products
- Aluminum for petroleum based products
- Brass for most water applications
- PVDF for aggressive chemicals

### FEATURES / BENEFITS

- Meter is designed for thin fluids < 100 cp
- Modular design allows for use with Output Modules, Sensors and Remote Transmitters
- 2 Totals (Batch = Resettable, Cumulative = Non-resettable); Rate of Flow, Factory calibrated in gallons and litres. Field calibratable. Includes non-volatile totals.
- High accuracy meter
- Internal parts are simple to replace for easy maintenance
- Lithium battery life: 5 years

### APPLICATIONS

- |                     |  |
|---------------------|--|
| • Batching          | • Food & Beverage Processing               |
| • Blending          | • Fuel Products                            |
| • Water             | • Monitoring Clean Fluids                  |
| • Industrial Fluids | • Plant Process Water                      |
| • Plating Solutions | • Chemical Feed Lines                      |
| • Ammonium          | • Harsh Chemicals (Sulfuric Acid & Bleach) |

## PRODUCT CONFIGURATION

### PRODUCT IDENTIFIER **1**

**G2** = Industrial Grade Flowmeter

### TURBINE MATERIAL **2**

**S** = Stainless Steel  
**A** = Aluminum  
**P** = PVDF (1/2" & 1" only)  
**H** = High Pressure Stainless Steel  
**B** = Brass

### TURBINE SIZE **3**

**05** = 1/2 inch  
**07** = 3/4 inch  
**10** = 1 inch  
**15** = 1-1/2 inch  
**20** = 2 inch

### FITTING TYPE **4**

**I** = ISO (Female) BSPT (ISO 7 Designation is RC)  
**N** = NPT (Female)  
**F** = 150# ANSI Flange - available on S10, S15 and S20 only  
**T** = Tri-Clover® fitting - available on S05-S20 only  
**X** = Electronics only - for metal meters  
**Z** = Electronics only - for plastic meters

### ELECTRONIC CHOICE **5**

#### Turbine with Local Display

**09** = 2-Button Computer, Field Configurable (Cumulative, Batch & Rate)  
**19** = Vertical Mount 2-Button Computer, Field Configurable (Cumulative, Batch & Rate)

#### Turbine, Local Transmitter, with No Display

**80** = Unscaled Pulsed Transmitter (Open Collector)  
**81** = QSI Version 1 (Scaled Pulse, RS485 [MODbus or BACnet], BTU Calculator, Bluetooth)  
**82** = QSI Version 2 (Scaled Pulse, Data Logger, BTU Calculator, Bluetooth)  
**83** = QSI Version 3 (Scaled Pulse, Data Logger, 4-20mA, Bluetooth)

#### Turbine, Local Transmitter, with 09 Display

**90** = Unscaled Pulsed Transmitter (Open Collector)  
**91** = QSI Version 1 (Scaled Pulse, RS485 [MODbus or BACnet], BTU Calculator, Bluetooth)  
**92** = QSI Version 2 (Scaled Pulse, Data Logger, BTU Calculator, Bluetooth)  
**93** = QSI Version 3 (Scaled Pulse, Data Logger, 4-20mA, Bluetooth)

#### No Electronics – Turbine Only

**XX** = No Electronics - Turbine Only

### CALIBRATION **6**

**GM** = GPM & L/min (Gallons Default)  
**LM** = GPM & L/min (Litres Default)  
**XX** = No Calibration (Use with Electronic Choices 41, 71, 72 or Turbine Only)

### PACKAGING **7**

**A** = Use for Turbine Only or 09 Electronics choice (Sizes 05-10)  
**B** = Use for Turbine Only or 09 Electronics choice (Sizes 15-20)  
 Use for 19 Electronics choice (Sizes 05-10)  
**C** = Use for 19 Electronics choice (Sizes 15-20)  
**D** = Use for Turbine Only or 09 Electronics choice, with ANSI Flange (Sizes 10) Use for 19 Electronics choice with ANSI Flange (Sizes 10)  
**E** = Use for Turbine Only or 09 Electronics choice, with ANSI Flange (Sizes 15-20) Use for 19 Electronics choice with ANSI Flange (Sizes 15-20)  
 Use for 80 thru 93 Electronics choice, with ANSI Flange (Sizes 10)  
**F** = Use for 80 thru 93 Electronics choice (Sizes 05-20)  
**G** = Use for 80 thru 93 Electronics choice, with ANSI Flange (Sizes 15-20)

----->>>> **1 2 3 4 5 6 7**  
**G2 S 15 N 09 GM B**

# Well Watch® 670

## Permanent Sonic Water Level Indicator

The Well Watch 670 water level indicator with *Sonic Sense* technology utilizes low frequency sound waves to provide accurate, continuously updated measurements for ground water management.



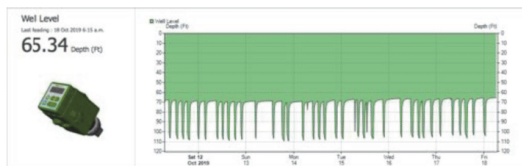
- Simple installation in any well configuration
- Data logger stores up to 25 million time/date points
- Weather resistant housing
- SCADA/Telemetry Compatible
- RS232, RS485 (Modbus), 4-20mA, 0-5V, 5V Alarm, USB Outputs
- Additional alarm features available

The Well Watch 670 is the only sensor on the market with the ability to provide continuously updated, on-site level measurements in wells up to 10" diameter. The low frequency sound waves can travel through wells drilled at any angle, around corners and partial obstructions down to 7000ft. The sensor is easily mounted in a vent hole or access port on the well and provides level data without breaking the seal of the well, thus eliminating the risk of well contamination and product corrosion. The Well Watch sensors require very little power when pulsing, so they can easily be powered from available AC/DC or with a solar kit for off the grid applications.

Water levels are updated at chosen interval rates from 1 second to 60 minutes and are displayed in real time on the LCD screen. The internal data logger can store up to 25 million time/date stamped log points downloadable in .txt format that can be viewed/graphed in any program of the user's choice. Alternatively, the sensor can be paired with a cellular modem to view data remotely on a private site or complimentary hosted page. There is no proprietary software, monthly fee or WiFi requirement.

### Product Benefits:

- Real time well levels (static, drawdown, recovery)
- Enables well management and control
- No proprietary software or monthly fees
- Save time/money compared to manual readings
- Protects the investment in pump equipment
- Built in alarm capability in case of emergencies
- Comply with State and Local usage regulations







INNOVATIVE.  
ADAPTABLE.  
ENERGY EFFICIENT.

# DM40

## Product Data Sheet Mesa Wall Panels



Our Mesa profile panel is the perfect economical choice for exterior / interior wall and ceiling applications on industrial and cold storage buildings.

### FEATURES AND BENEFITS

- The low profile linear exterior surface simplifies flashing connections designed to inhibit moisture vapor transmission compared with other deep fluted products on the market.
- The additional mesa profile on the interior face makes this panel particularly suited for thicker, long-length walls.
- The panel's overlapping joint is self-aligning and allows for easy sealant application at the panel joinery.
- The standard exterior metal surface is embossed 26ga G-90 galvanized steel with standard PVDF and SMP exterior coatings (other coatings may be available).
- The standard interior metal surface is embossed 26ga Imperial White.
- The panel arrives on site in one piece and requires a simple one step installation reducing construction time and costs.

### PRODUCT PARAMETERS

Panel Thickness:					
2"	2.5"	3"	4"	5"	6"
Insulating Values (R):**					
16	20	24	32	41	49

**Panel Width:** 40"

**Panel Length:** 8' min to 50' maximum based on a 48' flatbed trailer length. Consult your sales representative for other available lengths.

**Insulation Material:** CFC-free foamed-in-place polyisocyanurate foam 2.1 to 2.5 pcf density.

**Joint Configuration:** offset tongue and groove with concealed fastener.

**Metal facings:** 26ga galvanized steel (22ga, 24ga galvanized steel available. 26ga stainless steel available for interior use).

**Coatings:** PVDF & SMP (other coatings available).

**Accessories:** fasteners, concealed fastener clips, sealants, brake formed flashings.

*Available in fire 1-hour rated panel: DM40-F (4.5" R-32)*

### TESTED & APPROVED

*All Weather Insulated Panels' products have been extensively tested under a variety of North American standards:*

- FM 4880:** Class 1 Fire Rating
- FM 4881:** Class 1 Exterior Wall System
- CAN/ULC S101:** Fire Endurance
- CAN/ULC S127:** Flammability
- ASTM C518/C1363:** Thermal Transmission
- ASTM E283:** Air Infiltration
- ASTM E331:** Water Penetration
- ASTM E72:** Structural Strength
- ASTM E84:** Flame Spread
- AAMA 501.1:** Air/Water Infiltration

**Miami-Dade County Product Control Approved**

**FLORIDA APPROVED**



*\*\*R-Value tested in accordance with ASTM C518/C1363 at 40°F mean temperature, adjusted for a windspeed of 15 mph.*

### U.S.A

929 Aldridge Rd. Vacaville, CA 95688  
15000 Panatella Pkwy Little Rock, AR 72206  
1-888-970-AWIP (2947)  
[awipanel.com](http://awipanel.com)

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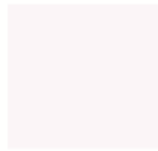
# Color Availability Chart



Sandstone



Surrey Beige



Regal White

## PVDF In-Stock Colors



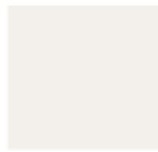
Royal Blue



Natural Green



Pearl Gray



Imperial White



Sandstone



Surrey Beige

## SMP In-Stock Colors



Warm White



Slate Gray



Evergreen

## PVDF Non-Stock Colors



Slate Blue



Colonial Red



Weathered Copper



Imperial White

## Interior Colors

The colors shown here are representative only and not necessarily true reproductions of actual coating colors. Coil coat color chips are available upon request. For further information regarding color availability, please contact your local sales representative.

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- Embossed metal surfaces are offered as a standard on wall panels and non-embossed (smooth) for roof panels. Non-embossed finishes may be available on wall panels upon request depending on color, gauge and end use.
- The standard interior paint finish for all panels is imperial White. All other colors are available as exterior facings.
- AdobeTexture™ finish is available in Sandstone, Surrey Beige, Pearl Gray and Regal White only.
- Non-stock colors and paint systems and special orders are typically subject to higher pricing and may increase lead times from point of order.
- Complete paint system specifications and standard finish warranties are available upon request.



**ALL WEATHER INSULATED PANELS**

Corporate Headquarters  
929 Aldridge Road  
Vacaville, CA 95688

TOLL FREE: (888) 970-AWIP (2947)

EMAIL: [sales@awipanel.com](mailto:sales@awipanel.com)

WEB: [awipanel.com](http://awipanel.com)