Drought Management Plan: Highland Farms

Use Permit: 20-96 and IS 20-116
7408, 7522, 7527, 7634, 7746 Highland Springs Rd. and 7257, 7357 Amber Ridge Rd., Lakeport CA, 95453

APNs: 007-006-34, 007-006-35, 007-006-40 007-006-27, 007-006-41, 007-057-02, 007-057-01

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 9275 Antler Hill Dr., Kelseyville, CA, 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, including limiting consumption and evaporation while minimizing 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 at a minimum on an annual basis.

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 recourses 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 first 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 wetting front 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 Grow-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's 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 be used to 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 provided 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's 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 and drastically improves 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:

When it comes to regulations, legal, 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 rate of diversion achieved at any time during each month, if available;

(4) The amount of water directly diverted and collected to storage in 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 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 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 type of activity;

ADOPTED TEXT OF EMERGENCY REGULATION

(E) stock watering, including number and type of animals;

(F) municipal, including approximate population served, and seven-digit public water system number or other identifier;

(G) domestic, including number of persons served, lawn or garden area, and seven-digit public water system number or other 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.

(d) Water diversion measurement, either 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.

(e) 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.

(f) If the use of an alternative supply of water or any water conservation efforts have 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.

Highland Farms intends on using Eno Scientific well Watch 670 and Flomec (or an equivalent) to monitor the property's well.

eno scientific®

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.

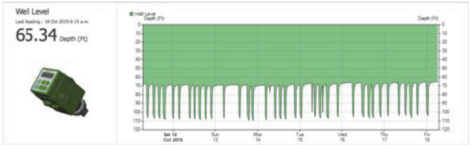
- Simple installation in any well configuration
- Data logger stores up to 25 million time/date points
- Weather resistant housing
- SCADA/Telemetry Compatible
- RS232, RS485 (Modbus), 4-20mA, 0-5V, 5V Alarm, USB Outputs
- Additional alarm features available

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 complimentarily 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



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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
- Blending
- Water
- Industrial Fluids
- Plating Solutions
- Ammonium
- Food & Beverage Processing
- Fuel Products
- Monitoring Clean Fluids
- Plant Process Water
- Chemical Feed Lines
- 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 = ½ inch
07 = ¾ inch
10 = 1 inch
15 = 1-½ 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