

ATTACHMENT 1B

Addendum to the Cultivation and Operations Plan

High Grade 007, LLC.

Humboldt County Application #12569
Humboldt, County APN: 208-341-021

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November 18, 2021



Summary of Intent

In November 2021, a permit transfer request was submitted to Humboldt county Planning and Building Department that transferred the responsibility of the cannabis project on APN 208-341-021 to a new owner and operator, High Grade 007. This 2021 Operations Plan Addendum adopts the existing Operations Manual for the project (AgDynamix, 8.6.2021) with the clarifications/changes in the following areas:

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1. Project Overview

1.1 Site Plan

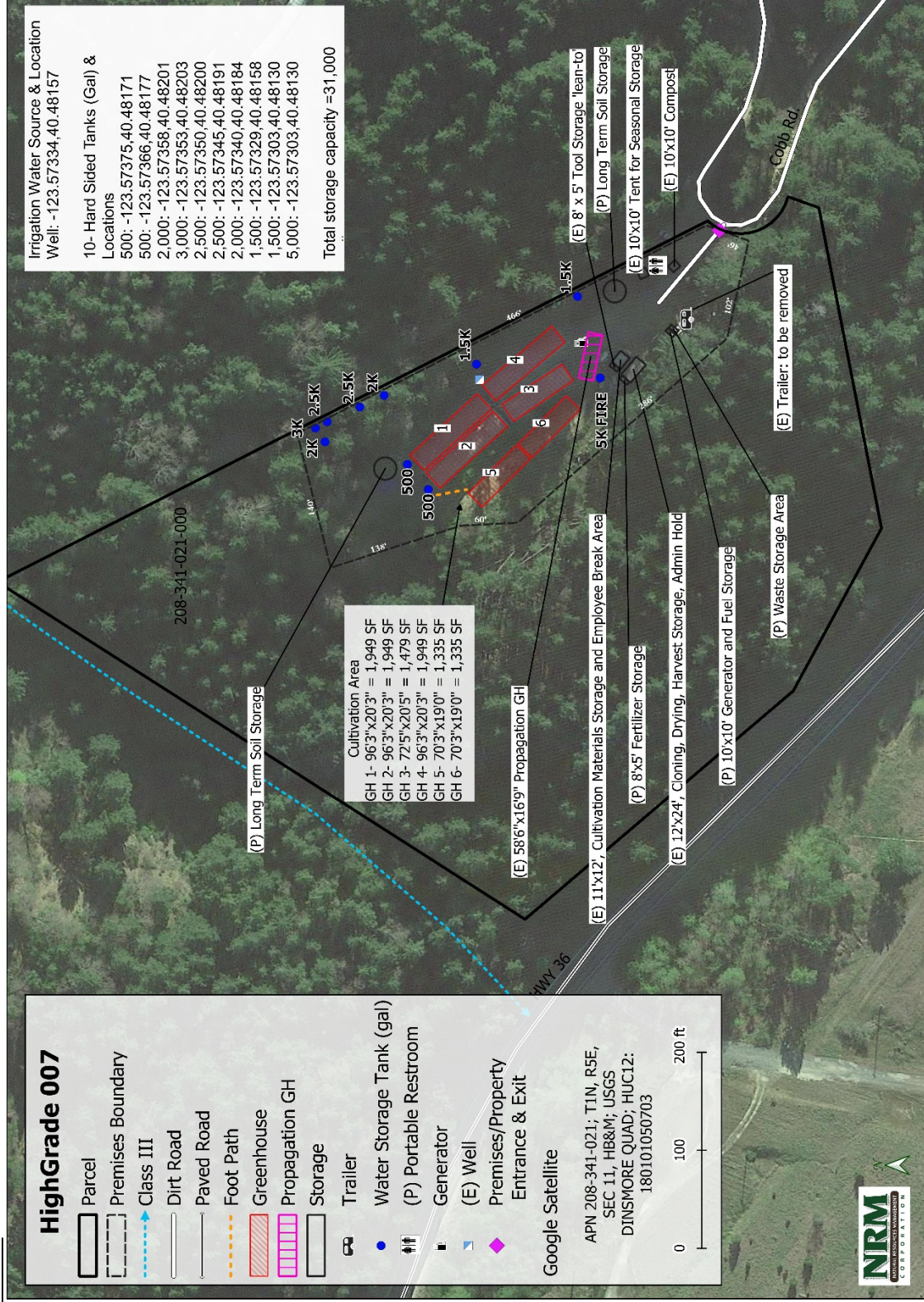


Figure 1. High Grade 007 LLC: Site Map; NRM November 2021

1.2 Cultivation Area/ Greenhouse detail

The layout of the cultivation is reduced from previous project iterations. There will be approximately 10,000 square feet of outdoor cultivation in six (6) existing greenhouses. The location and allocated square feet is based on existing (pre 2016) cultivation activity. The area was reduced and moved into greenhouses (2) sometime between 2014 and 2016 with additional greenhouses added prior to cultivation in 2019 by a previous operator.

The current landowner and operator believes that the greenhouses are necessary for the project to protect product from smoke damage as well as an important economic tool for competing in the cannabis market as greenhouses allow for the use of light deprivation techniques (4 out of 6 greenhouses have a mounted tarp pulling 'arm,' 2 are manually pulled).

Greenhouse dimensions:

GH 1- 96'3"x20'3" = 1,949 SF

GH 2- 96'3"x20'3" = 1,949 SF

GH 3- 72'5"x20'5" = 1,479 SF

GH 4- 96'3"x20'3" = 1,949 SF

GH 5- 70'3"x19'0" = 1,335 SF

GH 6- 70'3"x19'0" = 1,335 SF

Greenhouses 1-4 are located on an upper graded flat of approximately 19,000 square feet. Greenhouses 5 and 6 are downslope (west) of the upper flat on a lower flat of approximately 3,500 square feet. Aggregate greenhouse area is 9,996 sq.ft.

1.3 Ancillary Structures (existing and proposed)

Existing ancillary structures include one (1) 971 sq.ft existing propagation greenhouse (58'6" x 16'9"), one 132 sq.ft. (11'x12') shed for cultivation materials storage and for employee breaks (herein 'storage shed'), and one 288 sq.ft. (12'x24') shed for drying, cloning, harvest storage, and admin hold (herein 'drying shed'). Smaller structures include a small, 8'x5' lean-to storage area on the back of the storage shed and a temporary 10'x10' pop up tent that is used for additional materials storage.

Proposed ancillary structures include a 10'x10' shed for generator and fuel storage (herein 'fuel shed'), and an 8'x5' plastic storage 'closet,' for storage of fertilizers and pesticides (herein 'fertilizer shed').

2. Cultivation Activities and Support

2.1 Employees

The project anticipates 2-4 employees will be required to propagate, plant, tend and harvest 10,000 sq.ft. of cannabis. Based on previous operation, the employees are expected to be sourced from residents in the Dinsmore and Hayfork areas; car pooling will be encouraged by the project operator.

2.2 Fertilizers/Pesticide Use

The project will use fertilizers in the cultivation process; they will be stored in the proposed fertilizer storage shed. Liquid fertilizers will be stored in non-corrosive plastic containers with the capacity to hold the liquid amounts. Powdered/granular fertilizers will be stored on tarps or in non-corrosive plastic containers such that any spilled product can be easily cleaned up.

All fertilizers will be added wet, using mixing tanks with some top dressing possible closer to harvests. See table 1 below for fertilizer specifications.

Table 1. High Grade 007 Pesticide and Fertilizer Use

<i>Product Use</i>	<i>Active Ingredient</i>	<i>N-P-K Ratio</i>
Fertilizer		
Max Sea Grow	Seaweed powder, blood meal	16-16-16
Max Sea Bloom	Seaweed powder, blood meal	3-20-20
Botanicare CalMag	Calcium nitrate, Magnesium nitrate	2-0-0
Molasses	Sugar cane or sugar beet	n/a
Pesticide		
Lost Coast Plant Therapy	Soybean oil, peppermint oil, citric acid	n/a

Pesticide use is limited to one product, Plant Therapy; this product has plant based ingredients with no ingredients having residue tolerance limitations.

The project has not had and does not anticipate rodent problems. The project activities are grouped together in one operation area and employees are onsite daily during the operating season; these factors limit the potential for rodents to damage water lines or plants. No rodenticides will be used. If a problem with rodents arises, the project will utilize snap traps for rodent control.

2.3 Propagation

Propagation will take place in two locations on the Project parcel, the propagation greenhouse (58'6"x16'9") and in the westernmost building (12' x 24'), the drying shed. The drying shed will be used seasonally for cloning and will hold both immature clones ('babies') and non-flowering ('mothers'). Mother plants will also be stored in the probation greenhouse.

2.4 Drying

Drying will take place in the westernmost existing building (12' x24'), the drying shed. This building will be climate controlled with fans and dehumidifiers as the climate demands. Dried product will be picked up for processing by an authorized company. No trimming or packaging will take place onsite.

2.5 Waste Management (Solid Waste, Plant/Soil)

A designated area for waste and recycling, adjacent to the fuel shed will contain two cans with locking lids. The project estimates that these cans will be removed to the Recology Eel River transfer station every other week, or as needed, while employees are onsite. During this time, a portable toilet and handwashing station will also be added to the site.

The project has an existing 10'x10' compost area; the compost area is fenced with the contents turned several times a year. This is the primary method for organic waste disposal for the project, with a cannabis waste management business (i.e.: Cannabis Waste Solutions) another option for organic waste disposal; this option is still under investigation by the project manager.

Additionally, the project proposes to have up to two (2) long term storage areas for soil. The soil piles will be used as needed to top off beds /pots. They will be tarped and weighted with fiber rolls, or tarped top and bottom with weights and fiber rolls during the off season (winter). They will be located away from slope breaks and outside of riparian area buffers.

2. Power

2.1 Power Source and Use

The project site is accessed immediately off of State Route 36; grid transmission and low voltage are available nearby in the Van Duzen River corridor, but are not currently servicing development on Cobb Rd.

Due to the present lack of services, the project will continue to use a gas burning Honda EU7000is generator to supply power (both direct and to batteries) during the growing season as needed.

When not in use, the generator is stored in the proposed generator and fuel storage shed; when in use, the generator is normally positioned adjacent to the propagation greenhouse. At all times, the generator will have secondary containment such that were a spill to occur, the fuel leakage would be contained.

- Cultivation
The project uses the generator to run the well pump in order to irrigate plants.
- Propagation
The project will use generator power to run lights and charge batteries to run lights in the propagation greenhouse for several weeks in the early spring. The mid-season propagation greenhouse is not expected to require additional lighting.
The drying shed will also be used in the early Spring for cloning and mother plant maintenance. Supplemental lighting will be needed in the drying shed during this time
- Drying
The drying shed will use generator power after harvests to run dehumidifiers and fans. The mid-summer harvest generally requires little to no power use due to the hot and dry conditions.
- Trimming/Packaging
N/A. All trimming and packaging will occur offsite.

2.2. Generator Noise

The project will ensure that noise from the generator will not be audible by humans on neighboring residences. The generator will not exceed 60 decibels at the property line.

The shortest distance from the generator's normal location (see Figure 1) to the property line is approximately 50-ft. Honda Specifications for the Honda EU700iS generator indicate that running at a full load will result in 58 decibels of sound at 23-feet away. Doubling that distance to 46-feet away will reduce the noise level by 6 dB resulting in a noise level of 52 dB at the property line. The position of the generator relative to the property line and principles of sound attenuation over distance (engineeringtoolbox.com) indicate that the use of the generator will meet noise requirements for generators set forth by the county in the CCLUO (Ord. 2559; section 55.4.11o.)

In order to achieve a level of 50 dBA at habitat (Marbled Murrelet and NSO), a further reduction of at least 2 dB will be achieved by adding an attenuation barrier (insulated enclosure with opening face toward greenhouses) or by moving the generator to the west until a hand held decibel reader shows a reading of 50dBA or less at the edge of the habitat (tree line).

2.3. Petroleum Product Storage

Fuel for the generator will be stored onsite in 5-gallon fuel cans. The project will not keep more than 10 container (50 gallons) onsite at any one time. These containers will be located in spill containment (PE totes) and stored in the generator and fuel storage shed. CF will be refilled by employees at commercial fuel stations when needed and transported to the site in their personal vehicles.

3. Water

3.1 Source

All water will be sourced from a permitted groundwater well. See Figure 1 for location. The well was drilled in February of 2017 by Watson Well Drilling (WCR2017-000770) to a depth of 350-ft. Depth to first water was 75-feet with a yield of 12gpm.

The well log, though a rough view only, suggests that the upper geologic layer is highly impermeable, with “yellow clay with gravel” to about 23-feet below ground level. The last 327-feet of the log describes the geologic layers as “Blackish-Blue Sandstone.” The well casing is not screened for water intake until 170-feet below the surface. The well is located approximately 1500-feet to the northeast of the Van Duzen River.

3.2 Irrigation Schedule

The project anticipates using approximately 80,000 gallons of water per year to be distributed over 7 months of cultivation associated activities with most water use occurring June through August. An approximate breakdown of expected cultivation activities and water schedule is included in Table 2 below.

During April and May, the project will water plants around 1000 gallons of water every three days. Watering will increase to every two days as the outside temperature increases. The result is that the month of June, July and August see an increased demand for irrigation. As the temperature cools, the irrigation schedule reverts to 1,000 every three days once again with all irrigation ending by the last days of October.

Table 2. Approximate Cultivation Schedule and Estimated Annual Water Use

	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Activity	-	-	-	Veg	Veg	Bloom	Bloom /Veg	Veg /Bloom	Bloom	Bloom	-	-
Irrigation Gallons	-	-	-	5,000	10,000	15,000	15,000	15,000	10,000	10,000	-	-
Estimated Annual Irrigation Water Use = 80,000 gallons (8 g/ sq.ft)												

3.3 Storage

This project will have a total of 10 hard sided poly tanks for water storage: 9 tanks hold 16,000 gallons of irrigation water and 1 tank holds 5,000 gallons of water designated for fire suppression. See breakdown in Table 3 below.

Table 3. Water Storage

	Domestic	Fire	Irrigation	Total Storage (gallons)
Existing Water Storage	0	1 -5,000gal	2- 500 gal 2- 2500 gal 2- 1500 gal 1- 3000 gal 2- 2000 gal	16,000 irrigation storage 5,000 fire storage
Total Gallons = 21,000				

Irrigation tanks are filled with the well and well pump. From the large storage tanks on the hill slope, the 500 gallon storage tanks and mixing tanks are gravity fed. The project utilizes hoses currently to water the gardens. This system works for the project as the greenhouses are located close together and the amount of water can be easily regulated by the operator. The project may incorporate a pressurized emitter system in the future.