NORTHPOINT
CONSULTING GROUP, INC.

March 7, 2025

# Minor Deviation

Conklin Creek Farms, Inc. (PLN-2021-17034)
APN: 105-111-001, 105-042-002, 105-101-006

**Operations Plan Updates** (excerpts from approved Operations Manual; proposed updates shown in blue):

*Section 1.1, pg. 1: Project Objective*

> *Water will be sourced from a rainwater stored in a proposed 2.6-million gallon rainwater catchment pond. Power will come from existing PG&E service and solar panels. The applicants aim to become fully compliant with State and Local cultivation regulations.*

Proposed changes (in blue):

Water will be sourced from an existing, permitted groundwater well (lat/long: 40.31953, -124.26939) and stored in a proposed 50,000 gallons of hard tank storage (40.3156, -124.2692). Rain catchment (up to 50,000 gallons) could also be used to supplement water from the existing well. The existing, permitted groundwater well is non-diversionary and will not impact surrounding wells according to the Groundwater Well Evaluation technical memo prepared by NorthPoint Consulting Group, Inc (December 2024). Power will come from existing PG&E service and solar panels. The applicants aim to become fully compliant with State and Local cultivation regulations.

*Section 1.4.2, pg. 2: State Water Resources Control Board – Water Rights*

> *The water source for the project will be rainwater catchment. Rainwater will be collected and stored in a proposed 2.6-million gallon pond. No water rights are required for rainwater catchment at this time.*

Proposed changes (in blue):

The water source for the project will be from an existing, permitted groundwater well (lat/long: 40.31953, -124.26939). Water would be stored in a proposed 50,000 gallons of hard tank storage (GPS coordinates 40.3156, -124.2692). Rain catchment (up to 50,000 gallons) could also be used to supplement water from the existing well. No water rights are required for rainwater catchment at this time.

*Section 3.1.1, pg. 7: Water Source*

> *Water for proposed cannabis activities will be sourced from rainwater catchment (See Section 3.1.4). No diversionary water sources are proposed for this project.*

Proposed changes (in blue):

Water for proposed cannabis activities will be sourced from an existing, permitted groundwater well. Rain catchment (up to 50,000 gallons) could also be used to supplement water from the existing groundwater well. No diversionary water sources are proposed for this project.

*Section 3.1.3, pg. 7: Water Storage*

*Water storage is proposed in the form of a 2.6-million gallon rainwater catchment pond. Depending on project approval and subsequent pond construction timelines, the applicant may also elect to store captured rainwater in water tanks (either hard plastic water tanks or an engineered, permitted steel-bolted tank). It is anticipated 500,000 gallons of storage would be enough to supply project needs through the dry season (typically April – November, when approximately 458,000 gallons of water are expected to be used for proposed cannabis operations).*

Proposed changes (in blue):

Water storage is proposed to be in 50,000 gallons of hard tank storage (either hard plastic water tanks or an engineered, permitted steel-bolted tank). It is anticipated 500,000 gallons of storage would be enough to supply project needs through the dry season (typically April – November, when approximately 458,000 gallons of water are expected to be used for proposed cannabis operations).

*Section 3.2.1, pg. 9: Stormwater Management*

*The proposed cultivation activities will take place on an vineyard flat with slopes less than 15%. Mixed-light cultivation and nursery cultivation are proposed within greenhouses, and a new building is proposed. In total, approximately 85,000 sq. ft. of new development and impervious surface area is proposed. Rainwater is proposed to be collected from the new development surfaces and plumbed to water storage tanks located on APN 105-111-001. Capturing and storing rainwater for cultivation use will significantly reduce the amount of stormwater runoff caused by the implementation of this project. Proposed activities will also occur in existing structures, which is not anticipated to increase impervious surfaces.*

Proposed changes (in blue):

The proposed cultivation activities will take place on a vineyard flat with slopes less than 15%. Mixed-light cultivation and nursery cultivation are proposed within greenhouses, and a new building is proposed. In total, approximately 85,000 sq. ft. of new development and impervious surface area is proposed. The proposed irrigation water source is an existing, permitted groundwater well that would be pumped to 50,000-gallon water storage tanks located on APN 105-111-001. Up to 50,000 gallons of rainwater catchment could also supplement water from the existing groundwater well. Proposed activities will also occur in existing structures, which is not anticipated to increase impervious surfaces.

# CONKLIN CREEK FARMS, INC.
# APNS: 105-111-001 & 105-042-002
# CULTIVATION AND OPERATIONS MANUAL
# HUMBOLDT COUNTY, CA

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## COMMERCIAL CANNABIS
## CULTIVATION FACILITIES

**PREPARED FOR:**

**January 2021**
**September 2021**
**Revised November 2021**

**Commercial Cannabis Cultivation Facilities**
APNs: 105-111-001 & 105-042-002

Lead Agency:

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**January 2021**
**September 2021**
**Revised November 2021**

# Contents

# 1. PROJECT SUMMARY

## 1.1. PROJECT OBJECTIVE

Conklin Creek Farms, Inc. is proposing to permit commercial cannabis activities in accordance with the County of Humboldt's (County) *Commercial Cannabis Land Use Ordinance* (CCLUO), aka "Ordinance 2.0" on one legal parcel comprised of APNs 105-111-001, 105-042-002, 105-101-006, and 105-071-004 in Petrolia, California.

The project requires a Special Permit for 43,560-sf (square feet) of new mixed-light cannabis cultivation located on an existing vineyard and Zoning Clearance Certificates for new Cannabis Support Facilities including 5,000 sf of indoor cultivation in an existing pre-2016 building, 23,500 sf of enclosed commercial nursery, 1,950 sf of distribution, and 4,900 sf of off-site commercial processing (Table 1).

The project proposal includes permitting of proposed facilities appurtenant to the cultivation activities, including greenhouses and structures, specifically a 168' x 336' cultivation greenhouse (Greenhouse 1), a 136' x 168' nursery greenhouse (Greenhouse 2), and a proposed 60' x 80' commercial building for drying, storage, processing, distribution and nursery space (Building C). See Table 1 for details.

*Table 1. Proposed Cannabis Activities and Associated Locations*

| | Mixed-Light Cannabis Cultivation (sf) | Indoor Cannabis Cultivation (sf) | Enclosed Commercial Nursery (sf) | Distribution (sf) | Off-site Commercial Processing (sf) |
|---|---|---|---|---|---|
| <e> Building A (6,175 sf) | - | 1,000 | 500 | 750 | 3,700 |
| <e> Building B (4,750 sf) | - | 4,000 | 500 | - | - |
| <p> Building C (4,800 sf) | - | - | 500 | 1,200 | 1,200 |
| <p> Greenhouse 1 (56,448 sf) | 43,560 sf | - | - | - | - |
| <p> Greenhouse 2 (22,848 sf) | - | - | 22,000 | - | - |
| **Totals** | **43,560 sf** | **5,000 sf** | **23,500 sf** | **1,950 sf** | **4,900 sf** |

In addition to the above activities, the proposal includes development appurtenant to the cultivation activities, including 1,900 sf of ancillary drying in Building C, 4,360 sf ancillary nursery space (Greenhouse 1) and 8,208 sf storage space for soil, fertilizers, pots, tools, staging area, and other equipment (Greenhouse 1).

Water will be sourced from a rainwater stored in a proposed 2.6-million gallon rainwater catchment pond. Power will come from existing PG&E service and solar panels. The applicants aim to become fully compliant with State and Local cultivation regulations.

## 1.2. SITE DESCRIPTION

The project site is located on one legal parcel comprised of two APNs (105-111-001, 105-042-002) located near the community of Petrolia (lat/long 40.3128, -124.2699) in the Lower Mattole River watershed (HUC-12 #180101070209). The parcel is currently used for domestic and agricultural purposes, including livestock grazing and viticulture. APN 105-111-001 is approximately 49 acres and

APN 105-042-002 is approximately 120 acres for a combined total of approximately 169 acres.The property is located outside of the Coastal Zone and within the State Responsibility Area (SRA) for fire protection. An unnamed Class III drainage runs westerly through the property before becoming a Class II watercourse and draining to the Mattole River. Other historic ephemeral and intermittent watercourses run through the property before draining to the Mattole River. There are three (3) existing stream crossings onsite. Two existing wells are located on the property and are used for domestic and agricultural purposes.

The subject property spans the Mattole River, with approximately 117 acres of total prime agricultural soils located across the parcel. The mixed-light cannabis cultivation is designed to be located on the portion of the property without prime agricultural soils. All other cannabis-related activities occur on less than an acre of cumulative area on prime agricultural soils, comprising about 1 % of total prime agricultural soils onsite. The property contains fields, sparse oak stands, and vineyard. No trees are proposed to be removed as a part of this project.

### 1.3. Land Use

Currently, the property is used for residential and agricultural purposes, including an existing 8-acre (approx.) vineyard, existing accessory structures for viticulture, and livestock grazing. It is anticipated that these agricultural activities will continue in addition to the proposed cannabis-related operations.

The property is zoned for Unclassified (U) and has combined general plan land use designation of Agricultural Grazing (AG). Land uses surrounding the parcel are comprised of Agriculture, and Timber designations.

## 1.4. State and Local Compliance

### 1.4.1. California Department of Food and AGriculture – CalCannabis

Conklin Creek Farms, Inc. will obtain a Commercial Cannabis Activity license from the State of California once the local approval has been received, including commercial cannabis cultivation, nursery, and processor licenses from the California Department of Food and Agriculture and a distributor license from the Bureau of Cannabis Control.

### 1.4.2. State Water Resources Control Board – Water Rights

The water source for the project will be rainwater catchment. Rainwater will be collected and stored in a proposed 2.6-million gallon pond. No water rights are required for rainwater catchment at this time.

### 1.4.3. State Water Resources Control Board and North Coast Regional Water Quality Control Board – Water Quality

Prior to the commencement of cultivation activities onsite, the applicants will enroll for coverage the State Water Resources Control Board (SWRCB) General Order WQ 2019-0001-DWQ *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Dischargers of Waste Associated with Cannabis Cultivation Activities* "Order"). The purpose of the SWRCB Order is to implement the requirements for waste discharges associated with cannabis cultivation as described in SWRCB's *Cannabis Cultivation Policy – Principles and Guidelines for Cannabis Cultivation* ("Policy"). A Site Management Plan will be developed for the property to describe how the discharger is complying with the applicable Best Practicable Treatment or Control (BPTC) Measures listed in Attachment A of the Order/Policy.

The applicants will likely enroll as a Tier 2, Low Risk discharger to reflet proposed operations "disturb" one acre or greater.

#### 1.4.4. Humboldt County Building Department

Upon project approval, all necessary building permits will be obtained from the Humboldt County Building Department for all applicable existing/proposed structures and supporting infrastructure. The existing buildings related to the winery are permitted.

#### 1.4.5. Cal Fire

The subject property is located within a State Responsibility Area (SRA) for fire protection. Several improvements are proposed in order to meet SRA requirements, including management of trees and vegetation around existing structures to maintain the required 100-foot defensible space. All structures on the property will meet the 30-foot SRA setback requirement from property lines. Currently, there are two (2) existing designated fire turn-around and pull-out area for emergency vehicles. There is one (1) 2,500-gallon water tank proposed to be dedicated to SRA emergency response (see location in Appendix A). Risers to SRA specifications are proposed to be installed for firefighting purposes.

#### 1.4.6. California Department of Fish and Wildlife

A Lake or Streambed Alteration Notification was submitted for the three (3) existing stream crossings on the project site (CDFW Environmental Permit Information Management System (EPIMS) Number 15289). All existing culverts are 24" Corrugated Plastic Pipes (CPPs) and are proposed to be maintained. A Final Agreement is expected to be issued soon.

#### 1.4.7. Cultural Resources

A Cultural Resources Survey has been completed for the property and no Cultural Resources were discovered. If buried archaeological or historical resources are encountered during construction or cultivation activities, the applicant or contractor shall call all work in the immediate area to halt temporarily, and a qualified archaeologist is to be contacted to evaluate the materials. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, dietary bone, and human burials. If human burial is found during construction, state law requires that the County Coroner be contacted immediately. If the remains are found to be those of a Native American, the California Native American Heritage Commission will then be contacted by the Coroner to determine appropriate treatment of the remains. The applicant is ultimately responsible for ensuring compliance with this condition.

## 2. NURSERY, CULTIVATION, PROCESSING, AND DISTRIBUTION ACTIVITIES

### 2.1. Enclosed Commercial (Wholesale) Nursery Operation

Conklin Creek Farms, Inc. is proposing to permit approximately 23,500 sq. ft. of enclosed commercial nursery space to serve as a Cananbis Support Facility to Petrolia and surrounding communities. The commercial nursery will propagate juvenile plants on-site from seeds and mother plants. Approximately 22,000 sq. ft. of nursery propagation space would be located in a proposed 136' x 168' nursery greenhouse (Greenhouse 2), 1,000 sq. ft. would be located in existing Building A, and 500 sq. ft. would be located in proposed Building C (See Table 1 and Site Map for details).

The commercial nursery would function as a wholesale nursery, providing clone and juvenile plant deliveries. The commercial nursery would not typically be open to the general public for a storefront-type commercial nursery. Once built-out, 2-3 delivery vehicle trips associated with the nursery would be anticipated per day.

## 2.2. Cannabis Cultivation (Mixed-Light and Indoor) Operation

### 2.2.1. Propagation and Initial Transport

The applicants propose to propagate juvenile plants used in flowering cultivation onsite in approximately 4,360 sq. ft. of nursery space ancillary to the mixed-light cultivation. The ancillary nursery space will be located in the 168' x 336' mixed-light cannabis cultivation greenhouse (Greenhouse 1 – See Table 1 and Site Map).

Mother plants will remain in the vegetative state solely for propagation. Cuttings will be sampled from the mother plants and rooted into a growing medium (e.g. oasis cubes) to produce clones. The clones will then be transferred to the vegetative nursery area, and after 2-3 weeks will be transplanted into one-gallon pots or similar. The juvenile plants will be irrigated using drip irrigation methods, and after approximately three weeks they will be transplanted into their final location in the indoor cultivation area or mixed-light greenhouse where they will continue their vegetative cycle and eventually flower.
The applicants may also elect to transfer clones from their onsite commercial nursery or purchase clones from off-site in any given year based on market fluctuations and available resources.

### 2.2.2. Mixed-Light Cultivation

The 43,560 sq. ft. of mixed-light cultivation will occur in the proposed 168' x 336' greenhouse (Greenhouse 1), along with ancillary nursery and storage space. The area proposed for Greenhouse 1 is an existing vineyard that would be converted to cannabis cultivation. The greenhouse is proposed to be fully-automated, with automated black-out tarps, humidity-sensing drip irrigation systems, and automated nutrient feeding infrastructure. Mixed-light cultivation will use a combination of natural and supplemental lighting up to 25 watts/sq. ft. to produce up to four (4) cycles year-round. The Cultivation Schedule in Appendix B details the cultivation activities associated with the operation for a typical year. The cannabis cultivation is not located on prime agricultural soils, and will be planted in beds or pots within the greenhouse.

### 2.2.3. Indoor Cultivation

Approximately 5,000 sq. ft. of indoor cultivation will occur in an existing 65' x 90' commercial building (Building A). The non-residential, permitted building was constructed prior to 2005 and has historically been used for winery-related purposes. Irrigation and fertigation of plants will occur using drip irrigation and top-feed hand watering methods. While most irrigation needs will be on automatic drip, some irrigation and fertigation may be more efficiently managed via hand watering, which allows for daily inspection of each plant by the cultivator. Daily inspection of each plant allows the cultivator to tailor irrigation and nutrient application based on the needs of each individual plant. Indoor cultivation will use artificial light to produce up to five (5) flowering cycles per year. The Cultivation Schedule in Appendix B details the cultivation activities associated with the operation for a typical year.

## 2.3. Harvest and Commercial Processing Operation (Off-Site Processing)

The applicants are proposing to permit off-site commercial processing activities (Cannabis Support Facility) to dry, buck, trim, and/or package plants that are grown onsite or brought in from offsite from other farms. Approximately 1,200 sq. ft. of commercial processing space is proposed in the existing 50' x 95' building (Building B) and approximately 1,200 sq. ft. is proposed in the proposed 60' x 80' building (Building C).

For the processing of plants cultivated onsite, plants that are ready for harvest will have their flowering branches removed and placed in Building B or proposed Building C where they will be

suspended and left to dry for approximately one week. The dried flowers will be bucked into manageable buds and trimmed in the proposed commercial processing areas discussed above. Trimming will either be done by hand or a trimming machine. Packaging may occur onsite, or product may be taken offsite for further processing.

No manufacturing is proposed onsite.

## 2.4. Commercial Distribution Operation

Conklin Creek Farms, Inc. is proposing to permit distribution activities onsite as a Cannabis Support Facility. Approximately 750 sq. ft. of distribution space is proposed in existing Building B, and approximately 1,200 sq. ft. of distribution space is proposed in proposed Building C. Onsite distribution activities will include procurement of cananbis from licensed cultivators, packaging of cannabis products, and/or transportation of product to and from other licenses in the legal cannabis market. Testing and quality assurance are not proposed as a part of this application.

## 2.5. Employee Plan

The applicant is an "agricultural employer" as defined in the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5 of Division 2 of the Labor Code), and complies with all applicable federal, state and local laws and regulations governing California Agricultural Employers.

### 2.5.1. Job Descriptions And Employee Summary

- *Agent in Charge*: Responsible for business oversight and management. Responsibilities include but are not limited to inventory and tracking, personnel management, record keeping, budget, and liaison with State and County inspectors as needed. This is a part-time to full-time, seasonal position.
- *Lead Cultivator*: Oversight and management of the day to day cultivation of commercial cannabis. Responsibilities include but are not limited to plant propagation and transplant, soil management, irrigation, fertilization, pesticide management, and harvest activities. This is a full-time, year-round position.
- *Assistant Cultivator / Processing Manager*: Provides support to the *Lead Cultivator* in their day to day duties and takes the lead role during times when the *Lead Cultivator* may be off site. Once processing activities commence, the *Assistant Cultivator* duties switch to oversight and management of processing the dried commercial cannabis. This is a full-time, seasonal position.
- Seasonal Laborer: Provides cultivation, harvesting, processing, nursery, and distributionsupport. This is a part-time to full-time, seasonal position.

### 2.5.2. Staffing Requirements

In addition to the *Agent in Charge*, *Lead Cultivator, and Assistant Cultivator positions,* up to 12 full-time seasonal labor position may be employed. The number of seasonal laborers varies based on the needs of the farm during the cultivation and harvest. Up to 12 seasonal laborers may be utilized. During peak operational periods when all activities are occurring onsite, the operation may require up to 24 employees.

### 2.5.3. Employee Training and Safety

On-site cultivation, harvesting and drying will be performed by employees trained on each aspect of the procedure. Training will include but is not limited to cultivation/harvesting techniques, use of pruning tools, proper application/storage of pesticides and fertilizers. All cultivation staff will be

provided with proper hand, eye, body and respiratory Personal Protective Equipment (PPE). Access to the on-site cultivation and drying facilities will be limited to authorized and trained staff. All employees will be trained on proper safety procedures including fire safety, use of PPE, proper hand washing guidelines, and emergency protocol. Contact information for the local fire department, Cal Fire, Humboldt County Sheriff and Poison Control as well as the Agent in Charge will be posted at the employee restroom. Each employee is provided with a written copy of emergency procedures and contact information. The material safety data sheets are kept on site and accessible to employees.

#### 2.5.4. Toilet and Handwashing Facilities

Cultivation employees will have access to a ADA Bathroom in the proposed 60' by 80' commercial building (Building C). Existing restrooms are available in the onsite 65' x 95' commercial structure used for winery purposes. Anti-bacterial Liquid Soap and paper hand towels will be made available. Restroom and handwashing units will be serviced at regular intervals by a licensed contractor. Work will occur at a distance no greater than 900 feet from the restroom facility.

#### 2.5.5. On-Site Housing

One residence exists on the property, which the Lead Cultivator or Agent in Charge may reside. All other employees will commute to the work site from off-site locations. Carpooling will be encouraged when possible.

#### 2.5.6. Parking Plan

Twenty-four parking spots in two locations on the property. Nineteen (19) 8' by 20' and one (1) ADA parking spots are proposed adjacent to Building C. Four (4) 8' by 20' by the existing winery operation buildings (Building B - See Site Map). A loading zone is also proposed near Building C.

### 2.6. Security Plan and Hours of Operation

#### 2.6.1. Facility Security

The property is accessed through an entry gate that remains locked at all times. Cultivation facilities (greenhouses, storage sheds, drying facility, and existing and proposed facilities) will only be accessible through the locked gate. Access to the area is limited to employees and approved personnel including agency staff, consultants, and distributors.

#### 2.6.2. Hours of Operation

Activities associated with cultivation in the greenhouses (watering, transplanting, and harvesting) generally occur during daylight hours. All other activities such as harvesting and drying typically occur no earlier than 8 AM and extend no later than 8 PM. Commercial nursery and distribution activities typically occur 7 AM to 6 PM.

#### 2.6.3. Light Pollution Control Plan

Indoor cultivation will be located inside a structure, allowing for no light to escape. The nursery mixed-light cultivation areas, which will use supplemental lighting, will be enclosed in automated greenhouses to achieve Dark Sky standards and protect surrounding habitat. If the automated greenhouse fails, an opaque covering will manually be pulled across all light-emitting sources. Zero light shall escape all structures between sunset and sunrise. Any proposed security lighting will be downcast and not visibilt from neighboring properties.

# 3. ENVIRONMENT

## 3.1. WATER SOURCE, STORAGE, AND USE COMPLIANCE PLAN

The site currently supports agriculture (viticulture) and domestic uses (onsite residence). Water for both current uses is supplied by two existing onsite wells. The following sections detail water sources, storage, and use for the cananbis activities proposed onsite.

### 3.1.1. WATER SOURCE

Water for proposed cannabis activities will be sourced from rainwater catchment (See Section 3.1.4). No diversionary water sources are proposed for this project.

### 3.1.2. PROJECTED WATER USE

Water for the proposed cannabis activities, including mixed-light cultivation, indoor cultivation, commercial nursery, ancillary nursery, and other activities, is projected to be approximately 655,000 gallons annually (Table 2). Table 2 below outlines the estimated commercial cannabis activity water usage for cultivation during a typical year. Variables such as weather conditions and specific cannabis strains will have a slight impact on water use.

Table 2: Estimated Annual Irrigation Water Usage (Gallons)

| | Jan | Feb | Mar | April | May | June | July | Aug | Sept | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 acre Mixed-Light Cultivation | 20,000 | 20,000 | 35,000 | 35,000 | 50,000 | 60,000 | 60,000 | 50,000 | 40,000 | 35,000 | 17,000 | 20,000 | **442,000** |
| 5,000 sq. ft. Indoor Cultivation | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | **60,000** |
| 23,500 sq. ft. Commercial Nursery | 10,000 | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 | 10,000 | 10,000 | **138,000** |
| 4,360 sq. ft. Ancillary Nursery | 800 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 800 | 800 | **11,400** |
| Processing/ Other | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | **3,600** |
| **Total** | **36,100** | **38,300** | **53,300** | **53,300** | **68,300** | **78,300** | **78,300** | **68,300** | **58,300** | **53,300** | **33,100** | **36,100** | **655,000** |

### 3.1.3. WATER STORAGE

Water storage is proposed in the form of a 2.6-million gallon rainwater catchment pond. Depending on project approval and subsequent pond construction timelines, the applicant may also elect to store captured rainwater in water tanks (either hard plastic water tanks or an engineered, permitted steel-bolted tank). It is anticipated 500,000 gallons of storage would be enough to supply project needs through the dry season (typically April – November, when approximately 458,000 gallons of water are expected to be used for proposed cannabis operations).

### 3.1.4. Rainwater Catchment Analysis

As discussed above, the water source for the proposed project is rainwater catchment. This section details how much rainwater can be captured and stored on the project site for the proposed project build-out.

Table 3 provides a summary of the potential rainwater harvest volume for the year. Precipitation depth data for the Petrolia area was obtained from PRISM and used to calculate an average annual rainfall depth of 56 inches and a drought rainfall depth of 29 inches. To obtain the volume of the water that reaches the catchment area, the average rainfall depth was multiplied by the catchment surface area.

Table 3: Rainwater Catchment Pond Harvest Volume Potential in Average and Drought Rain Years

| Rainfall Year (in.) | Catchment Surface | Catchment Area ($ft^2$) | Approximate Rainfall Capture Potential (gal) |
|---|---|---|---|
| High: 120 inches | Rainwater Catchment Pond | 40,500 | 3,027,780 |
| Average: 56 inches | Rainwater Catchment Pond | 40,500 | 1,412,964 |
| Drought: 29 inches | Rainwater Catchment Pond | 40,500 | 731,714 |

As shown in Table 3, the rainwater catchment pond could supply greater than the anticipated water demand for the whole project in an average rainfall year. The applicant could also plumb additional catchment surfaces to the pond to help fill the pond during low-rainfall years. Table 4 displays additional surfaces to illustrate rainwater harvest potential onsite during a drought year (using 2013 values of 29 inches for reference). The capture efficiency of the catchment surfaces is estimated to be approximately 95% due to potential breaks in the guttering or other unforeseen complications.

Table 4: Secondary Rainwater Catchment Surfaces and Harvest Volumes for Drought Preparation

| Catchment Surface | Catchment Area ($ft^2$) | Drought Annual Rainfall (in.) | Rainfall Capture Potential (gal) | Adjusted Rainfall Capture Potential (gal) |
|---|---|---|---|---|
| Mixed-Light Greenhouse | 56,448 | 29 | 1,019,846 | 968,857 |
| Commercial Nursery Greenhouse | 22,848 | 29 | 412,795 | 392,155 |
| Proposed Commercial Processing Facility | 4,800 | 29 | 86,722 | 82,386 |
| **Total** | | | | **1,443,398** |

## 3.2. Site Drainage, Runoff, and Erosion Control

The applicant will enroll with the State Water Resources Control Board (SWRCB) for coverage under the General Order. A Site Management Plan (SMP) for existing site conditions is in the process of being developed; the SMP will detail erosion control and sediment capture measures, as well as road maintenance and runoff activities.

### 3.2.1. Stormwater Management

The proposed cultivation activities will take place on an vineyard flat with slopes less than 15%. Mixed-light cultivation and nursery cultivation are proposed within greenhouses, and a new building is proposed. In total, approximately 85,000 sq. ft. of new development and impervious surface area is proposed. Rainwater is proposed to be collected from the new development surfaces and plumbed to water storage tanks located on APN 105-111-001. Capturing and storing rainwater for cultivation use will significantly reduce the amount of stormwater runoff caused by the implementation of this project. Proposed activities will also occur in existing structures, which is not anticipated to increase impervious surfaces.

In addition, 85,000 sq. ft. of new impervious surfaces is approximately 1% of the total parcel area. It is not anticipated that this increase in development will cause significant increases in storm water. Stormwater management may also be addressed in a Construction General Permit, if required by the North Coast Regional Water Quality Control Board.

Stormwater management for the remainder of the property will be addressed in the Site Management Plan, which will also include recommendations for road network maintenance. Existing and proposed structures are located outside of streamside management areas, providing a sufficient buffer to prevent potential sediment or nutrient delivery.

### 3.2.2. Erosion Control

The SMP will include erosion and sediment control best practicable treatment controls (BPTCs) designed to prevent, contain, and reduce sources of sediment. Additionally, the SMP will include site-specific corrective actions to reduce sediment delivery from the roads on the property. BPTC prescriptions may include rocking roads, maintaining rolling dips/water bars, and unplugging ditch relief culverts. However, a site investigation by NorthPoint Consulting in Fall of 2020 revealed that onsite road networks were in excellent condition, with minimal signs of erosion or sedimentatiaon.

## 3.3. Watershed and Habitat Protection

A Biological Assessment was prepared for the proposed project by Mad River Properties, Inc. The proposed project will follow all recommendations outlined in the Biological Assessment. All proposed cultivation activities will be set back at least 50-ft from any ephemeral drainages and 100-ft from intermittent watercourses on site. These setbacks should provide a suitable buffer between the cultivation operation and habitat. All light shall be attenuated so that it does not create a new source of light or glare that could adversey impact local wildlife.Adherence to the Site Management Plan will ensure that erosion control and sediment capture BPTC measures are in place to prohibit water quality degradation of the nearby river. Any grading and earthwork activities will be conducted by a licensed contractor in accordance with approved grading permits.

## 3.4. Invasive Vegetative Species Control Plan

Once proposed cultivation activities commence, the cultivation area will be monitored for invasive species. If invasive species are located, hand tools (shovels, weed wrenches, trowels, or hand saws) may be used to remove them. The exact rate and method of invasive species removal will be determined based on the species identified. The areas of disturbance shall be surveyed and maintained twice each year, at a minimum, as part of the invasive species control plan.

The following is a partial list of websites to be used for proper identification and treatment:

1. https://calflora.org//
2. https://plants.usda.gov/java/

3. https://www.cal-ipc.org/
4. https://www.cal-ipc.org/solutions/
5. http://www.rareplants.cnps.org/
6. https://www.wildlife.ca.gov/Conservation/Plants#22064102-california-native-plant-information
7. http://ucjeps.berkeley.edu/
8. http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html
9. https://www.fws.gov/invasives/partnerships.html

## 3.5. Materials Management Plan

Cultivation, harvesting, and drying shall be performed by employees trained on each aspect of the procedure, including cultivation and harvesting techniques, the use of pruning tools, and proper application/storage of pesticides/ and fertilizers. All cultivation and processing staff are provided with proper hand, eye, body and respiratory Personal Protective Equipment (PPE). Access to the onsite cultivation, drying and processing facilities are limited to authorized and trained staff. Mixing of fertilizers in small storage tanks is solely conducted in a designated area where the mix will not enter surface waters. For young plants, the mix is applied via watering wand and mature plants are fertigated at agronomic rates by drip emitters or hand watering methods. Spent soil is amended and reused as needed. The application of any agricultural chemical products will be conducted according the manufacturer's recommendation.

Employees are trained on usage and handling procedures of associated equipment and cleaning procedures. Chemicals and hazardous materials are only used with equipment as recommended by manufacturers. Cleaning will occur regularly with instructions based on the manufacturer's recommendations. All cleaning materials will be put away and stored properly within secondary containment when not in use and hazardous containers will be properly disposed of. Additionally, if there are any spills on site, there will be a spill kit with sorbent pads will be accessible.

On-site inventory is kept for all chemical. Chemicals are used and stored based on manufacturer's recommendations and requirements. Any materials required for use of chemicals will be provided to employees. The material safety data sheets (MSDS) are kept on site and accessible to employees.

All hazardous waste will be stored within secondary containment. Additionally, a log will be kept in order to keep the volume of hazardous waste accounted for. Fertilizers and pesticides are being stored in a separate location from petroleum products. The aforementioned products will be located within secondary containment in a storage shed. No rodenticides will be used on site. At the end of the season, any unused liquid products are stored in secondary containment and will be applied the following year. Before unused products are stored at the end of the season, an employee will take inventory on the volumes and products. Additionally, all waste will be properly disposed of off-site and the correct facility. All trash, empty product containers, and recycling are hauled off-site bi-weekly to nearest licensed waste management facility.

Appropriate BPTC measures are being utilized when storing, handling, mixing, applying, and disposing of all fertilizers, pesticides, herbicides, rodenticides, or any other hazardous materials. Each year an inventory is conducted prior to the beginning of the grow season and necessary products are delivered to the site as needed.

## 3.6. Soils Management Plan

The applicant is proposing to plant all cultivation enclosed in fully-automated greenhouse and indoor building. The applicants will account for and keep records of annual and seasonal volumes of

soil imported and exported on and off site. Any purchased soils will be reamended for use the following year. During the wet season, any soil piles will be located in a flat area outside of riparian setbacks and winterized, likely with a tarp underneath the pile and straw wattles located around the pile to prevent leachate from entering surface waters. Potential spent soils will be properly disposed of off-site at an appropriate facility.

### 3.7. Hazardous Waste Statement

There are no hazardous materials mapped onsite. The site has been historically utilized for a residential property. No industrial activities have occurred on site. A search of the EnviroSTOR database shows no GeoTracker Cleanup Programs on-site.

### 3.8. Energy Plan

The Applicants currently have an existing PG&E service: 400 amp commercial service and 200 amp residential service. A future PG&E upgrade may be applied for to provide additional power to the project, or the applicant may install solar array in the future to provide energy needs. Existing solar panels are located on the roofs of Building A and Building B, and a half acre area for future solar panels has been identified in the east of the property near Building C. All power used from PG&E for cultivation activities shall be sourced from renewable energy, such as the RCEA PowerPlus Plan or similar. A generator is kept onsite for back-up purposes only.

### 3.9. Waste Management

#### 3.9.1. Cultivation

Solid waste will be stored in garbage cans adjacent to the proposed Drying Building; waste will be transported to an appropriate facility weekly or as needed. Organic cultivation-related waste, including branches and leaves, will be composted and chipped or hauled off-site to a green waste management facility as needed. Trash and recycling from cannabis operations, including empty soil or fertilizer bags, liquid fertilizer bottles, cultivation supplies, etc., will be taken to the nearest waste management facility as needed.

#### 3.9.2. Sewage Disposal Plan

Cultivation employees will have access to an ADA bathroom in the proposed 60’ by 80’ commercial building; the ADA bathroom will be supplied with antibacterial soap and paper towels. The ADA bathroom will be maintained and will be sized and maintained to meet the expected needs of the operation. Prior to construction of the 60’ x 80’ building, employees will utilize the existing onsite restrooms in the winery buildings or will utilize temporary toilets.

## 4. PRODUCT MANAGEMENT

### 4.1. Product Testing and Labeling

Samples will be selected from individual harvested cannabis strains and tested by a licensed third-party lab in accordance with State and local standards. The finished product is labeled and will include tracking ID’s provided by the California Cannabis Track-and-Trace (CCTT) METRC system.

### 4.2. Product Inventory and Tracking

The applicants will follow all regulations and requirements set by the CCTT-METRC system. After approval of state licenses related to the proposed cultivation, the applicants will request credentials and order unique identifiers (UIDs) which will be assigned to each immature lot, flowering plant, and distinct cannabis product.

### 4.3. Transportation and Distribution

Transportation will be handled by a licensed transporter/distributer in accordance with State and Local regulations. All merchantable product will be distributed through licensed commercial cannabis dispensaries. The CCTT-METRC system will be used for all transactions with distributors or transporters.

# APPENDIX B: CULTIVATION ACTIVITIES SCHEDULE

| Item | Description | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Drainage, Runoff, and Erosion Control | Winterization (storage of pots/greenhouse covers) | | | | | | | | | | | | |
| | Temporary Erosion Control BMP's (straw, seeding, fiber rolls, etc.) | | | | | | | | | | | | |
| | Road maintenance | | | | | | | | | | | | |
| | Culvert and inboard ditch maintenance/inspection | | | | | | | | | | | | |
| Commercial Nursery | Maintenance of Mother Plants | | | | | | | | | | | | |
| | Propagation, cutting, and delivery of juvenile plants and clones | | | | | | | | | | | | |
| Distribution | Interact with other legal cannabis licenses, transportation, packaging | | | | | | | | | | | | |
| Mixed Cultivation and Harvest Schedule | Mixed Light Cultivation Cycle | | | | | | | | | | | | |
| | Harvest activities | | | | | | | | | | | | |
| | Drying Activities | | | | | | | | | | | | |
| Indoor Cultivation and Harvest Schedule | Indoor Cultivation Cycle | | | | | | | | | | | | |
| | Harvest activities | | | | | | | | | | | | |
| | Drying Activities | | | | | | | | | | | | |
| Staffing Presence | Agent in Charge | | | | | | | | | | | | |
| | Lead Cultivator | | | | | | | | | | | | |
| | Assistant Cultivator | | | | | | | | | | | | |
| | Seasonal Laborers | | | | | | | | | | | | |

# APPENDIX C: REFERENCES

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