

# Revised Cannabis Relocation & Restoration Plan

APN: 210-144-012

County Application # 11795  
Humboldt County

Prepared By:  
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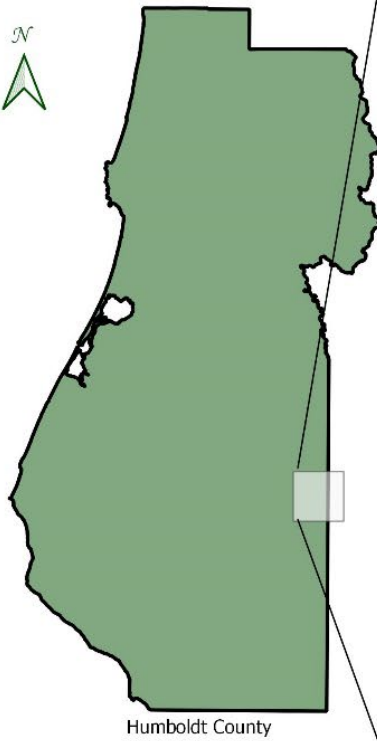
November 2, 2022





## Site Maps

Vicinity of APNs 210-144-011,  
210-144-012 & 210-144-017; T1S, R5E,  
SEC 2, HB&M; USGS DINSMORE QUAD;  
HUC12: 180101050902



Humboldt County

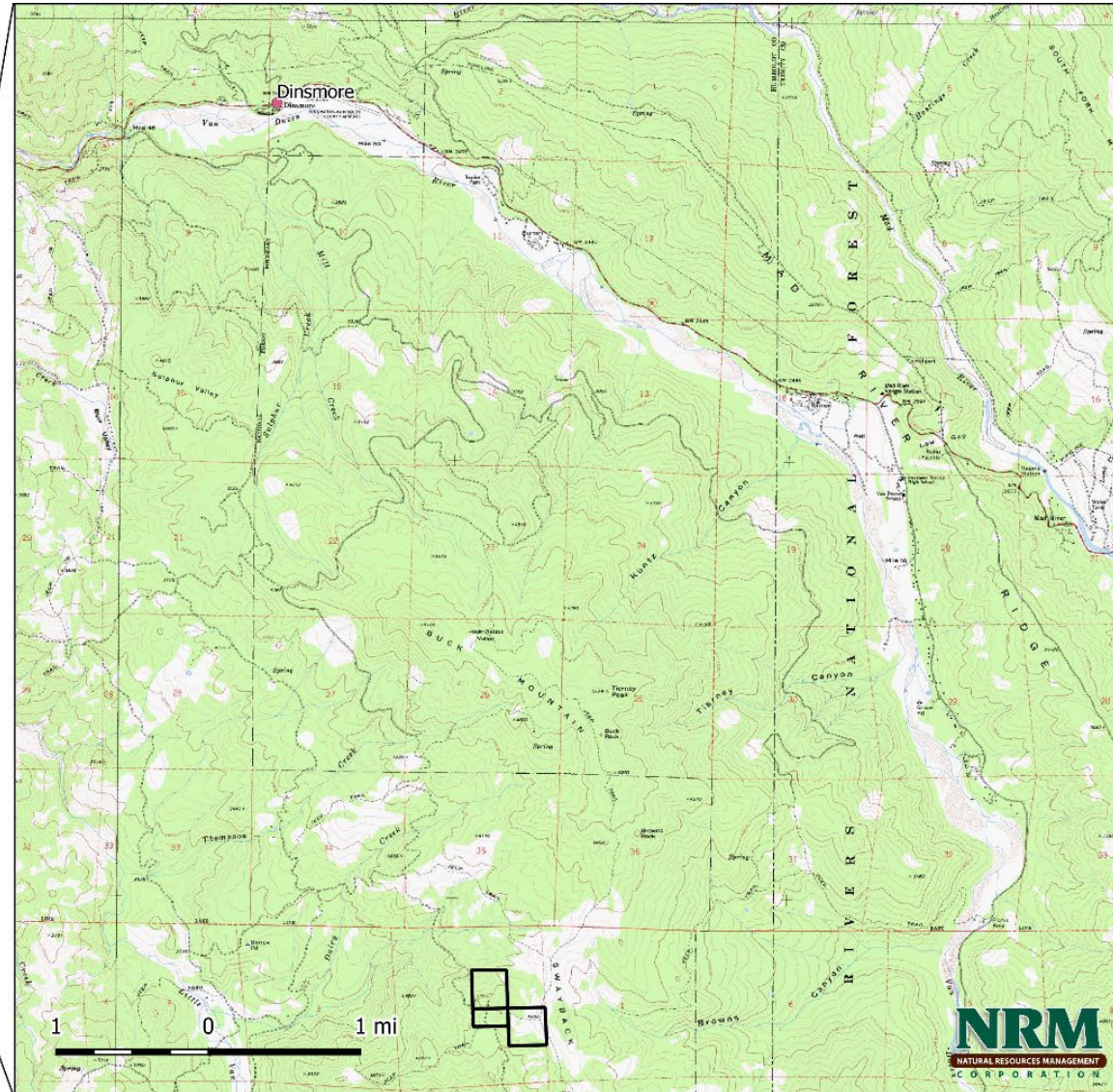
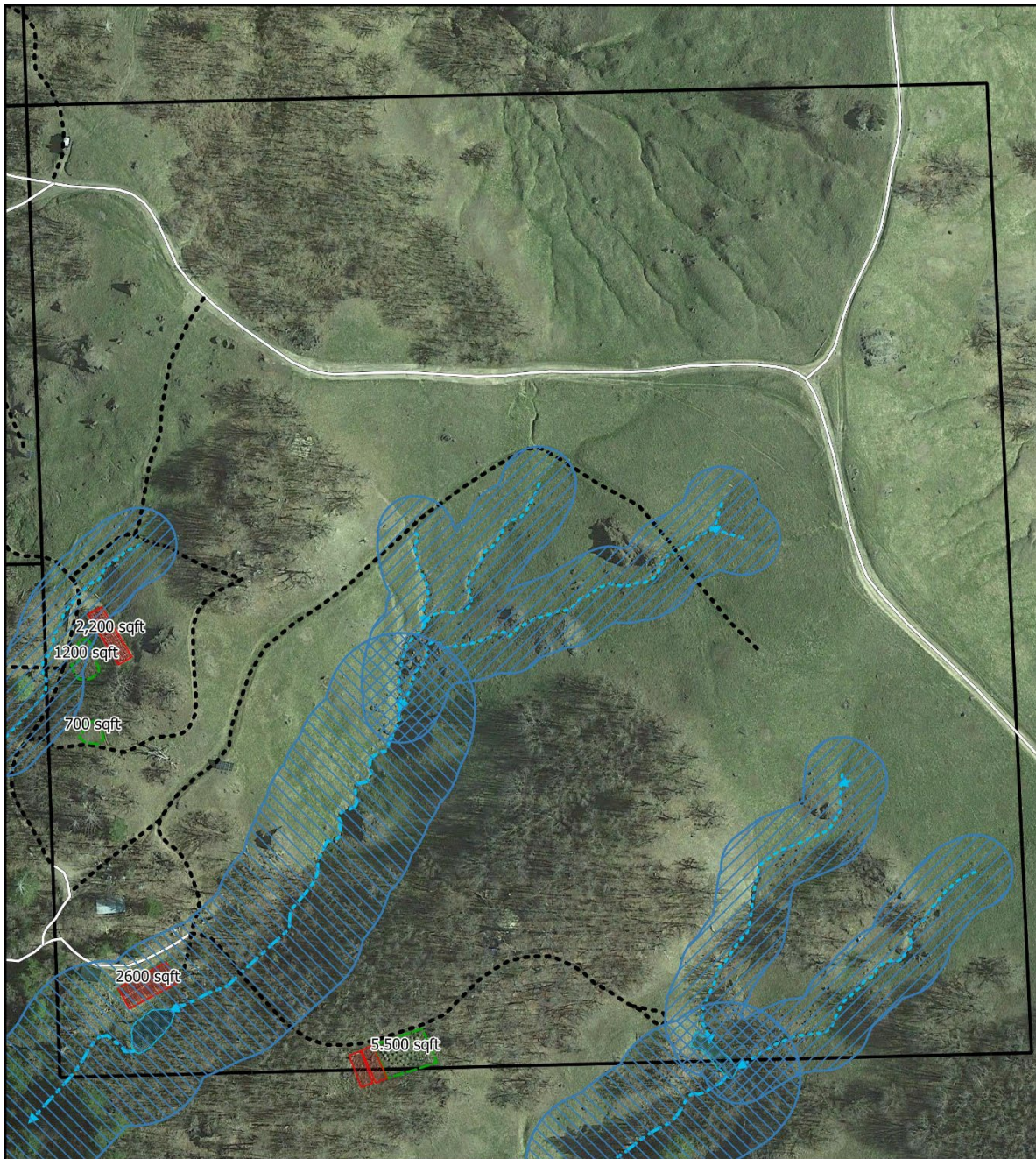


Figure 1. Vicinity of APN 210-144-012-000



- Cultivation
  - Class II
  - Class III
  - Outdoor
  - Mixed Light
  - Greenhouse
- Roads
  - Dirt Road
  - Quad Trail
- Base Maps
  - Google Satellite
- 50-foot buffer
- 100-foot buffer
- Pond
- Parcel

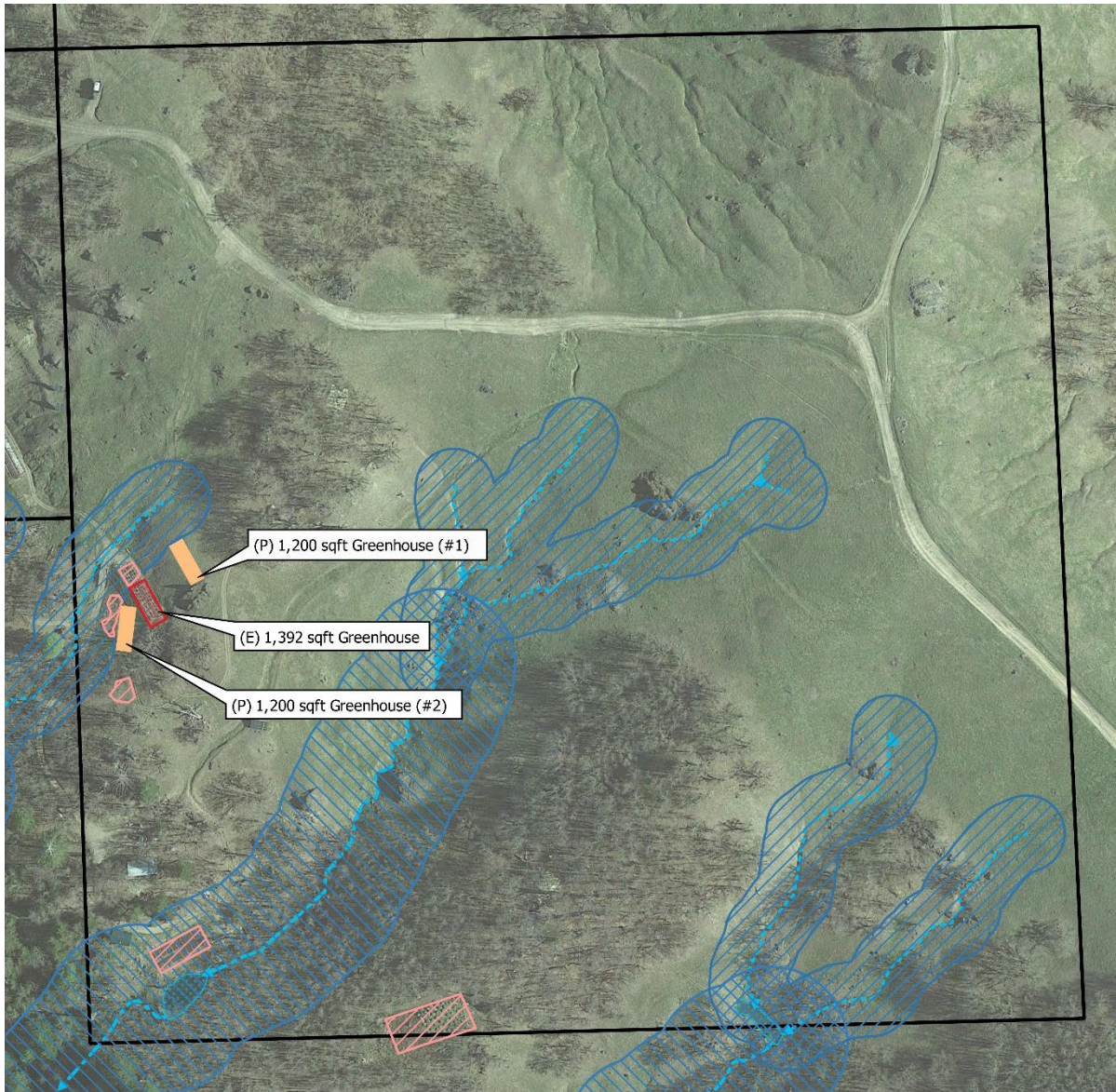
0 100 200 ft



APN 210-144-012-000; T1S, R5E, SEC 2, HB&M;  
USGS DINSMORE QUAD; HUC12: 180101050902



Figure 2. Watercourses and Parcel Boundaries Impacted by Cannabis Cultivation on APN 210-144-012



- (E) Mixed Light Greenhouse (1,392 sqft to remain)
- (P) Mixed Light Greenhouse
- Restoration Area
- 50-foot buffer
- 100-foot buffer
- Class II Google Satellite
- Class III
- Pond
- Parcel

APN 210-144-012-000; T1S, R5E, SEC 2, HB&M; USGS DINSMORE QUAD; HUC12: 180101050902



Figure 3. Restoration and Relocation, areas on APN 210-144-012

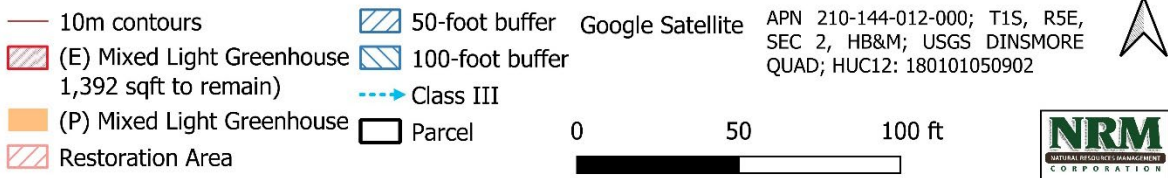
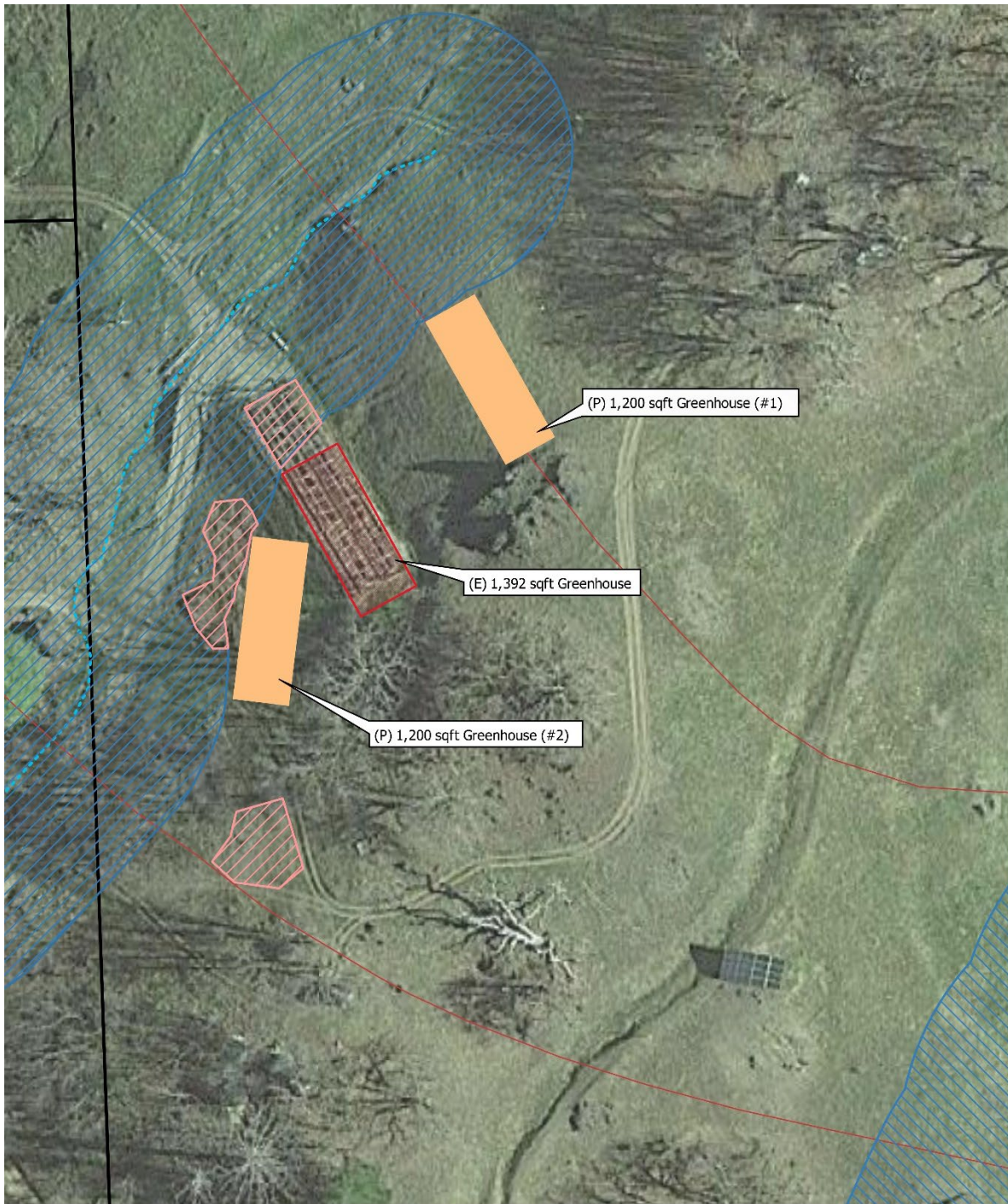


Figure 4. Relocation Area 'close-up' on APN 210-144-012

### **Summary**

The total pre-existing square footage is 14,000 ft<sup>2</sup>, which was made up of 8,200 ft<sup>2</sup> of outdoor and 5,800 ft<sup>2</sup> of mixed light. Approximately 3,221 ft<sup>2</sup> of this original cultivation space is located within Humboldt County Streamside Management Areas (SMAs) and/or Water Board Watercourse Buffers. The majority of pre-existing cultivation was either adjacent to watercourse buffers or the southern property line.

This revised relocation was initiated at the request of Steve Cannata during the county relocation site visit that took place on December 8, 2021. Per the discussion with the county in December of 2021, all 14,000 square feet was to be relocated to an open meadow in the southeastern corner of the property. On further review, the suggested relocation was determined to be impractical for the applicant because the location required additional botanical surveys and grading plans.

The preferred relocation includes keeping 1,392 ft<sup>2</sup> in the existing (but reduced in size) mixed light greenhouse on the west side of the property and relocating 2,400 ft<sup>2</sup> of the remaining cultivation into 2, (20' x 60') mixed light greenhouses located in open fields adjacent (north and south) of the existing greenhouse. The relocation areas were visited many times during site visits and during botanical surveys and will not require grading (only surficial scraping). No trees will be removed; the slope of the proposed greenhouse relocation areas is less than 15%. Once the relocation is complete there will be 3,792 ft<sup>2</sup> of mixed light cultivation made up of 3 Mixed light greenhouses.

All areas where pre-existing cultivation is located will be cleaned up and re-vegetated with native species except where the 1,392 ft<sup>2</sup> of existing cultivation will remain outside of the watercourse buffer on the already disturbed greenhouse pad on the western side of the property (figure 3).

### **Pre-existing Cultivation Sites**

The pre-existing cannabis cultivation was a mix of outdoor and hoop houses. Approximately 3,221 ft<sup>2</sup> is located in the buffers of two watercourses (figure 2). All pre-existing infrastructure will be removed except for where the 1,392 ft<sup>2</sup> of mixed light will be located outside of the stream buffer on the already disturbed greenhouse pad on the western side of the property (figure 3).

### **Relocation Areas**

The relocation site is located on the eastern side of the property (figures 3 and 4). Two 20 ft by 60 ft hoop houses will be constructed.

The relocation area is an open meadow outside of any watercourse buffers. The slopes in the area were reported to be less than 15% by the applicant. A botany survey was done in 2019 (see the Botany Report in the project file). The survey directly covered this side of the property. Figures 3 and 4 show the proposed site layout and square footage. Photos of the proposed greenhouse locations are included as Photo 4 -5 (GH#2) and Photos 6-7 (GH#1) at the end of this document.

The exact location of the proposed greenhouses may be somewhat modified as the setback from the stream will need to be measured on the ground before the construction of the proposed greenhouses begins.

## ***Restoration***

### ***Restoration Areas***

In three different areas, the original cultivation footprint was within the Water Board setbacks of Class III watercourses (figure 2). The fourth cultivation area was located on the southern property line. All areas where pre-existing cultivation is located will be cleaned up and re-vegetated with native Oregon white oaks except where 1,392 ft<sup>2</sup> of mixed light cultivation will be located (remain) outside of the watercourse buffer on the already disturbed greenhouse pad on the western side of the property (figure 3). A total of 12,608 ft<sup>2</sup> will be revegetated (figure 2).

There is a total of approximately 12,608 square feet of area that needs to be re-vegetated (figure 5). We believe these areas were formerly vegetated with Oregon white oak. This restoration Plan calls for restoring 504 Oregon white oak trees.

Oregon white oak is NOT a native tree species that can be obtained commercially as a container-grown plant within Humboldt or Trinity Counties. On-site acorn (seed) collection and propagation is the best way to protect the genetic resources of California's oak woodlands (McCreary 2009). Direct seeding of these acorns is the best way to promote healthy root formation in young oak trees and prevent the transmission of soil-borne pathogens via the importation of nursery stock (McCreary 2009).

Using acorns 504 trees will be replanted in the restoration areas. The 504 planting sites will be evenly distributed across the restoration areas. This density will produce an Oregon white oak for every 25 square feet of the former cultivation site.

### **Acorn Planting**

#### **Acorn Source Trees**

Oregon white oak acorns shall be sourced from trees in the immediate area.

#### **Acorn Collection and Handling**

Acorns will be gathered in the late summer to early fall when they break easily from their attachment point of the source tree. Acorns should be harvested directly from the tree if possible, or very soon after they have dropped to the ground. All acorns must be inspected for insect or other damage and then checked for viability via the float test. **Acorns must NOT be allowed to dry out once collected** and should be stored carefully in refrigeration or moist medium in the interim between collection and planting. Please refer to *Regenerating Rangeland Oaks in California* (McCreary 2009) for specific instructions on collecting, sorting, and handling acorns.

#### **Planting Site Preparation**

Before planting begins, the site will be thoroughly weeded of all non-native vegetation. Emphasis shall be placed on removing any perennial invasive species. For each planting site, a micro-terrace approximately 2 feet in diameter should be constructed, creating a small level area referred to hereafter as a planting basin. The soil within this planting basin should be loosened to a depth of approximately 1 foot. **Do NOT fertilize the soil.**



## **Materials Preparation**

Each planting basin will require a cylindrical cage. The cage can be of any material of sufficient strength to deter deer, should be at least 3 feet in diameter and 3 feet tall, and should have strong stakes.

## **Acorn Planting Instructions**

First, irrigate the planting basin so that the soil is saturated to a depth of at least 2 feet. Five acorns should then be planted within the inner cage, at a depth of between 1 and 2 inches. Then install the cage and stake it in. A thin mulch of leaf duff collected on-site, or weed-free straw can be used around the inner cage. Please refer to *Regenerating Rangeland Oaks in California* (McCreary 2009) for specific instructions on planting acorns.

## **Initial Monitoring and Maintenance**

The acorns should be monitored every other week after planting. If there are dry spells long enough to dry out the top several inches of soil, each planting basin should be irrigated. By May of the spring following planting, the strongest, healthiest individual seedling growing within each planting basin should be identified, and the other individuals should be thinned by snipping off at ground level. Continue irrigating deeply once a month throughout the dry season of the first year. **Do not fertilize.** Hand weed around the plantings as necessary. Please refer to *Regenerating Rangeland Oaks in California* (McCreary 2009) for specific instructions on post-planting maintenance.

## **Planting Design**

A total of 504 planting basins will be constructed, requiring a total of 2,520 acorns. The basins should be evenly distributed throughout the restoration areas (figure 5).

## **5-Year Monitoring, Reporting, and Maintenance period**

A 5-year monitoring, reporting, and maintenance period shall follow planting, and the initial monitoring and maintenance. A final maintenance event will occur upon the completion of the 3<sup>rd</sup> monitoring year.

## **Planting Maintenance**

During each summer (May-August) for the 3 years following planting, each planting basin should be irrigated deeply once a month. This irrigation should be sufficient to wet soil within the basin down to a depth of two feet. Irrigation should **not occur** more frequently than recommended, as deep, infrequent watering encourages better root formation than frequent shallow watering. Weeds should be managed within the restocking sites regularly throughout this period. Caging must be inspected for effectiveness in preventing herbivory, and that it is not impeding tree growth or development. Adaptive management must be implemented to address additional caging needs. Maintenance may include re-planting if survivorship does not meet the Success Criteria in any of the three monitoring years.

## **Caging Maintenance**

During each summer (May-August) for the 3 years following caging, each cage should be checked to make sure the materials are not injuring the oak sprouts, and that the caging is still sufficient to protect them.

### **Monitoring**

In the fall (September-October) of the 5 years following planting, each of the 504 planting basins will be assessed for survival and growth. The number of surviving trees will be recorded, and this number will be used to assess the percent survivorship of the plantings. Notes will be made about issues such as herbivory, disease, or any other factors influencing survivorship. Photos of the sites will be taken.

### **Reporting**

An annual monitoring report will be submitted to CDFW, NCRWQCB, and the County by December 31 of each monitoring year. This report will include photos, planting survival status, a description of site conditions, a discussion of any needed maintenance or other labor, and whether Success Criteria were met in that year. If survival is not high enough not meet the Success Criteria described below, arrangements will be made for re-planting. Adaptive management should be utilized to solve any unforeseen problems preventing the Success Criteria from being met by year 3.

### **Success Criteria**

By the fall of each monitoring year and by the end of monitoring year 5, there should be at least 85% survival of plantings, and less than 5% absolute cover of invasive plant species within the site.

### ***Literature Cited***

McCreary, Douglas D. 2009. Regenerating Rangeland oaks in California. University of California Agriculture and Natural Resources Publication 21601e. Oakland, CA.

(available online at [http://ucanr.edu/sites/oak\\_range/files/59453.pdf](http://ucanr.edu/sites/oak_range/files/59453.pdf))



Photo 1 Pre-existing cultivation area partially in the watercourse buffer.



Photo 2 Cultivation area on the southern property line.



Photo 3 The cultivation area near the northwest corner, the far end of the hoop-house will be kept as a mixed light greenhouse.



Photo 4. Proposed location of (P) 1200 sq.ft. mixed light greenhouse (#2). Exact location to be determined by on site measurements of the SMA.

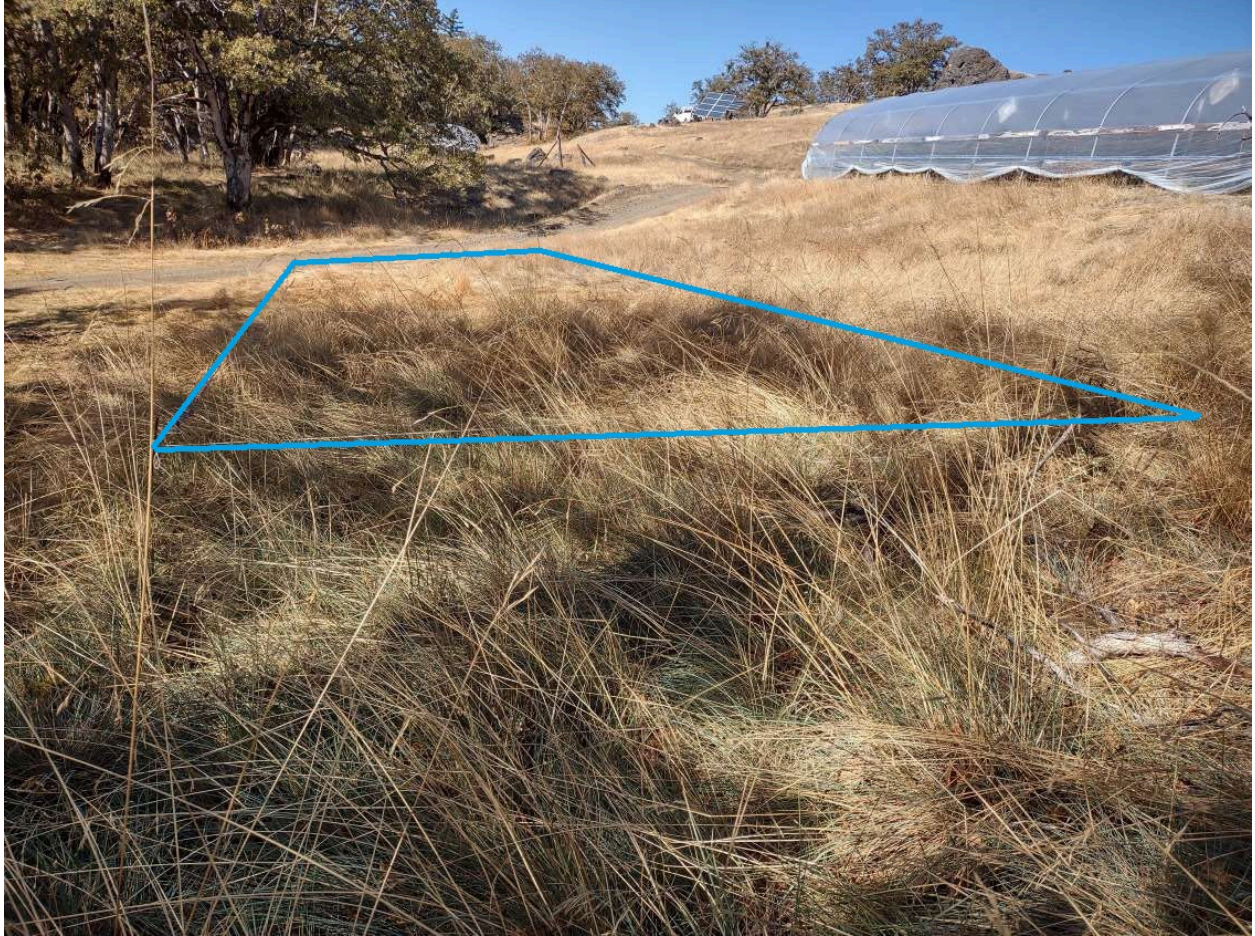


Photo 5. Proposed location of (P) 1200 sq.ft. mixed light greenhouse (#2). Exact location to be determined by on site measurements of the SMA.



Photo 6. Proposed location of (P) 1200 sq.ft. mixed light greenhouse (#1). Exact location to be determined by on site measurements of the SMA.



Photo 7 Proposed location of (P) 1200 sq.ft. mixed light greenhouse (#1). Exact location to be determined by on site measurements of the SMA.