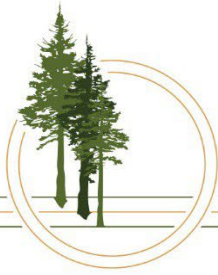


Appendix E

Oak Mitigation Plan



JACOBSZOOM & ASSOCIATES, INC.

natural resource planning & management

Oak Mitigation Plan

Prepared for:

1833 DS LLC
10750 Seigler Springs Road
Kelseyville, CA 95451

Prepared by:

Seamus Fleming, RPF #3130
Jacobszoon and Associates, Inc.

December 18, 2024

Introduction

In September 2024 1833 DS LLC (“Client”) contracted Jacobszoon and Associates, Inc. (“JA”) to conduct an Oak Mitigation Plan for a portion of their cannabis cultivation property located at 10750 Seigler Springs Road in Lake County, CA. Client proposes to develop approximately 1.8 acres of their property for the construction of a cannabis nursery and processing facility. Preparing the proposed site for development will require the conversion of an established oak woodland.

The project site was evaluated and surveyed by Jacobszoon and Associates Forester Seamus Fleming and designee Airica Gallaspy on September 11, 2024. The project area is occupied by a dense, primarily even-aged stand of California black oak (*Quercus kelloggii*) with scattered overstory ponderosa pine (*Pinus ponderosa*). Understory vegetation on site is comprised of annual grasses, manzanita and oak and regeneration.

Trees to be removed under the proposed project include oaks ranging in size from 6” to 34” diameter at breast height (DBH), with the average stem being approximately 10” DBH. The average height of oaks on site is approximately 40 feet. All trees were observed to be in good health. The stand structure and relative heterogeneity of the stand indicate the site was regenerated via stump sprouting after fire.

A census survey of the site produced a total of three hundred sixty-two (362) black oaks and six (6) ponderosa pines. It is anticipated that all 362 oaks will be removed during the conversion operation to prepare the site for development. See Table 1 below for a tree summary by diameter and species. To comply with the California Oak Woodlands Conservation Act, oaks removed from the site will be replaced at 3:1 at a suitable location elsewhere on the property. One thousand eighty-six (1,086) black oaks will be planted, protected and irrigated for seven years to mitigate the loss caused by conversion of the existing woodland.

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Table 1. Tree summary by species and diameter

DBH	Species	
	Black Oak	Ponderosa Pine
6	33	
8	129	
10	88	
12	62	
14	26	
16	12	2
18	6	1
20	3	
22	1	1
24	1	
26		
28		
30		1
32		
34	1	
36		
38		
40		1
Total	362	6

Compliance with the California Oak Woodlands Conservation Act

The Oak Woodlands Protection Act and the County of Lake identify mitigation standards for projects that convert oak woodland to another use. Under the Oak Woodlands Protection Act, Lake County shall require one or more oak woodland alternatives “to mitigate the significant effect of the conversion of oak woodlands.” Alternatives to mitigate the significant effect of the conversion of oak woodlands include replacing removed trees at a rate of 3:1 and maintaining these trees pursuant to Section 4526 of Senate Bill No. 1334, terminating seven years after the trees are planted.

Mitigation Plan

Acorns will be harvested directly from species within the vicinity of the site in late fall when the acorns begin their transition from green to brown. JA biological staff or any other qualified biologist or forester will collect, sort, store, and plant acorns in addition to selecting saplings within the Restoration Site to protect. Oak regeneration guidelines are adapted from



“Regenerating Rangeland Oaks in California” which will be followed for the harvesting, care, and planting of acorns.

Suitable planting sites exist surrounding the conversion area primarily to the south and west (see attached map). Acorns will be planted in basins containing three to five acorns per basin across a potential 178 acres of oak woodland on the property. Planting sites should utilize existing microclimates to the extent feasible, focusing on interplanting throughout the existing oak woodland on the property and along roads and margins of woods. Acorn basins will be spaced a minimum of approximately 15 feet apart to allow trees to reach full size at maturity, using the surrounding tree spacing as a model.

A critical factor affecting young oak seedlings is competing vegetation. Adjacent plants, especially grasses, can consume much of the available soil moisture leaving little for the seedlings. A 3-foot diameter circle around each plant is to be cleared of all vegetation by hand weeding or hoeing. A thick layer of wood chip mulch will be placed within the 3-foot circle to protect against weeds and help conserve moisture by reducing evaporation from the soil surface. Tree shelters will be placed over the acorn basins to deter herbivory by wildlife and encourage growth of saplings by creating a greenhouse effect. Drip irrigation will be used to water the trees.

Additional mitigation measures may be implemented based on specific needs as the project unfolds to ensure seedling survival.

Irrigation

Oak seedlings will be irrigated for seven years following initial planting. A drip irrigation system is recommended, to be installed by the landowner. Additional recommendations for irrigation are listed in the table below.

Maintenance

In addition to irrigation, maintenance and monitoring of the plantings is required for seven years. Competing weed growth reaches its peak during mid-February through early May. In addition to the primary competitive impacts of weeds, large amounts of dead annual grasses can provide favorable habitat for voles or meadow mice which are predators of both acorns and seedlings. During this period, the area around each basin should be hand weeded every four to six weeks. Weed growth within the mulch will be the highest in year 1; however, with proper weed management in the first year, there will be fewer weeds in the following years, resulting in greatly diminished maintenance requirements. Recommended maintenance activities by year are included in the following table.



Table 2. Mitigation Maintenance Schedule

Year	Maintenance Activities
Planting	Plant acorns between October and December to allow initial establishment during the wetseason. Water as needed to ensure survival if rain is inconsistent. Clear weeds within a 3-foot diameter around acorn basins every four to six weeks and maintain a layer of mulch within a 3-foot diameter circle surrounding planting.
One	Water trees weekly (~15 gallons per week) with supplemental watering as needed if temperatures exceed 100 degrees for multiple days in a row. Replenish mulch in spring and remove weeds from the planting area as needed.
Two	Water trees weekly (~15 gallons per week) with supplemental watering as needed if temperatures exceed 100 degrees multiple days in a row. Replenish mulch in the spring. Remove weeds from the planting area, as necessary.
Three	Water trees as needed if temperatures exceed 100 degrees multiple days in a row, but do not water more often than twice per month. Replenish mulch in the spring. Remove weeds from the planting area, as necessary. Pruning may be necessary to remove defective limbs or deadwood under the discretion of a Qualified Arborist.
Four	Water trees as needed if temperatures exceed 100 degrees multiple days in a row, but do not water more often than twice per month. Replenish mulch in the spring. Remove weeds from the planting area, as necessary. Apply approximately 30 gallons per watering.
Five	Water trees monthly. Replenish mulch in the spring. Remove weeds from the planting area, as necessary.
Six	Water trees monthly. Replenish mulch in the spring. Remove weeds from the planting area, as necessary.
Seven	Water trees monthly. Replenish mulch in the spring. Remove weeds from the planting area, as necessary.

Oak Planting and Restoration Site

The landowner will plant and protect a total of 1,086 black oaks for seven years to ensure successful establishment. Protected saplings and oak plantings will be established within and adjacent to oak woodland habitat immediately outside of the conversion area, primarily to the south and west (proposed Restoration Site). Further assessment may be required to identify specific planting sites that offer the most favorable microclimate for seedling establishment, and the lowest maintenance costs/requirements.



Monitoring Plan

Annual monitoring reports will be submitted by Jacobszoon and Associates, Inc. or another qualified forester or biologist of the landowners choosing to the Community Development Department of Lake County. The first annual report will be submitted by December 31st following the start of the project.

Monitoring will be conducted in the spring and fall to document tree survival. The report will include a summary of all relevant data regarding the health and vigor of the oak seedlings, discuss any necessary replacement planting, invasive plant management efforts or other remedial measures taken, summarize any changes or recommendations for adaptive management for the site, and document conditions with photographs of the site.



Report Author:

Seamus Fleming, RPF #3130

Seamus is a Registered Professional Forester at Jacobszoon and Associates Inc. with 9 years of professional experience in forest management. Seamus provides timber management plans, timberland appraisals, forest management plans, CEQA and NEPA review documentation and forestland evaluations among other professional services. He received a Bachelor of Science in Forestry from Humboldt State University in 2015.

Prior to his current position at Jacobszoon and Associates, Seamus worked for CAL FIRE at Jackson Demonstration State Forest and two private consulting firms in the north coast region. Seamus has extensive experience with north coast forest management and strives to help landowners identify environmentally and economically sound solutions to achieve their land management goals. Seamus received his professional forestry license in January 2020.

Sincerely,



Seamus Fleming

Registered Professional Forester #3130

Jacobszoon & Associates, Inc.





1833 DS LLC Oak Mitigation Plan

Vicinity Map

T12N, R08W, Sections 13 & 14
 Clearlake Highlands USGS 7.5' Quad
 Kelseyville, CA

 Subject Property



Scale: 1:60,000



JACOBSZOOM & ASSOCIATES, INC.
 natural resource planning & management

S. Fleming
 12/12/2024



1833 DS LLC Oak Mitigation Plan

Potential Oak Restoration Area

T12N, R08W, Sections 13 & 14
 Clearlake Highlands USGS 7.5' Quad
 Kelseyville, CA

-  PLSS
-  Property Boundary
-  Conversion Area
-  Potential Oak Restoration Area



Scale: 1:8,000



S. Fleming
 12/12/2024