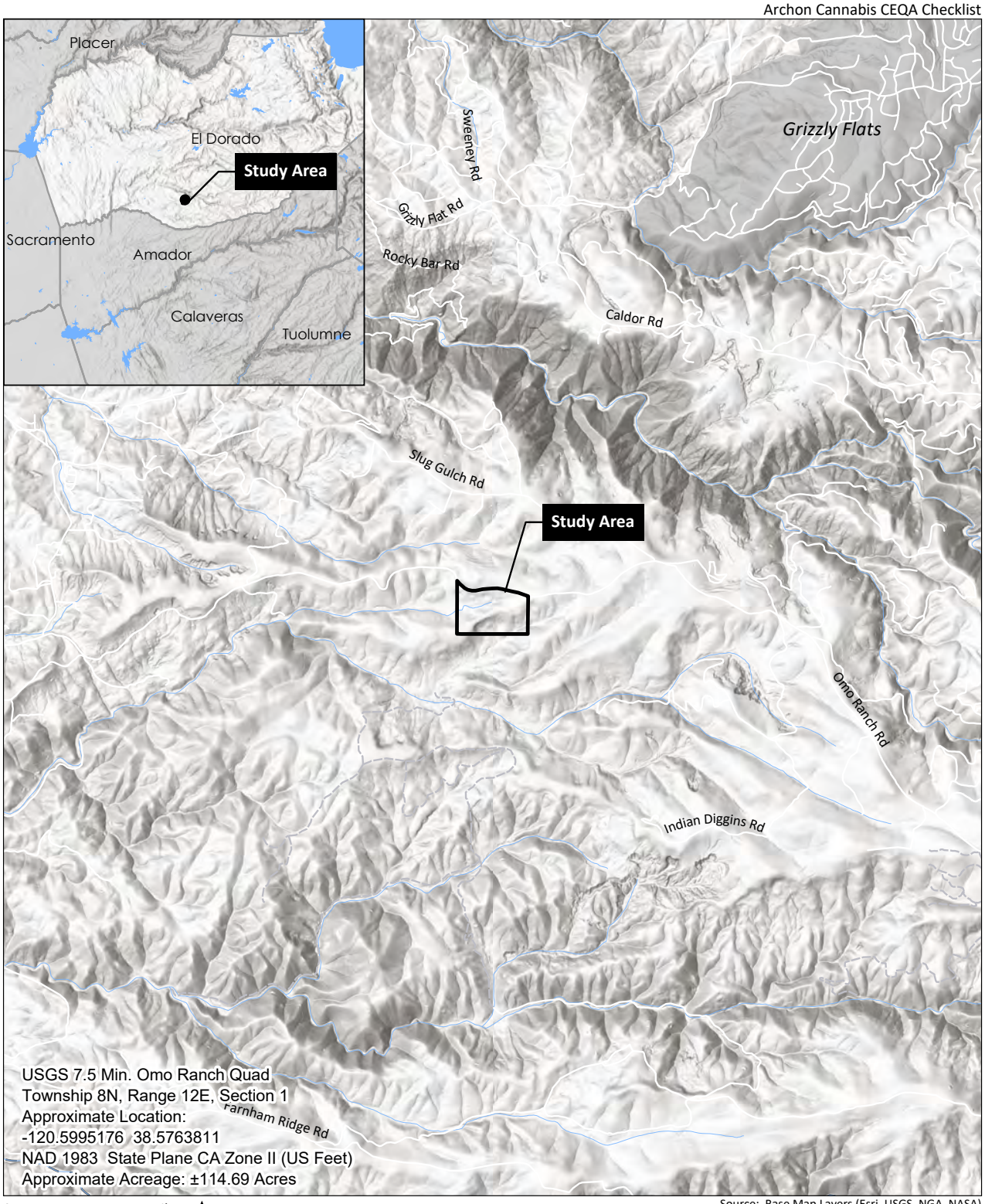
Appendix A

Figures

CCUP21-0008/Archon
Exhibit K - Proposed Initial Study
Appendices

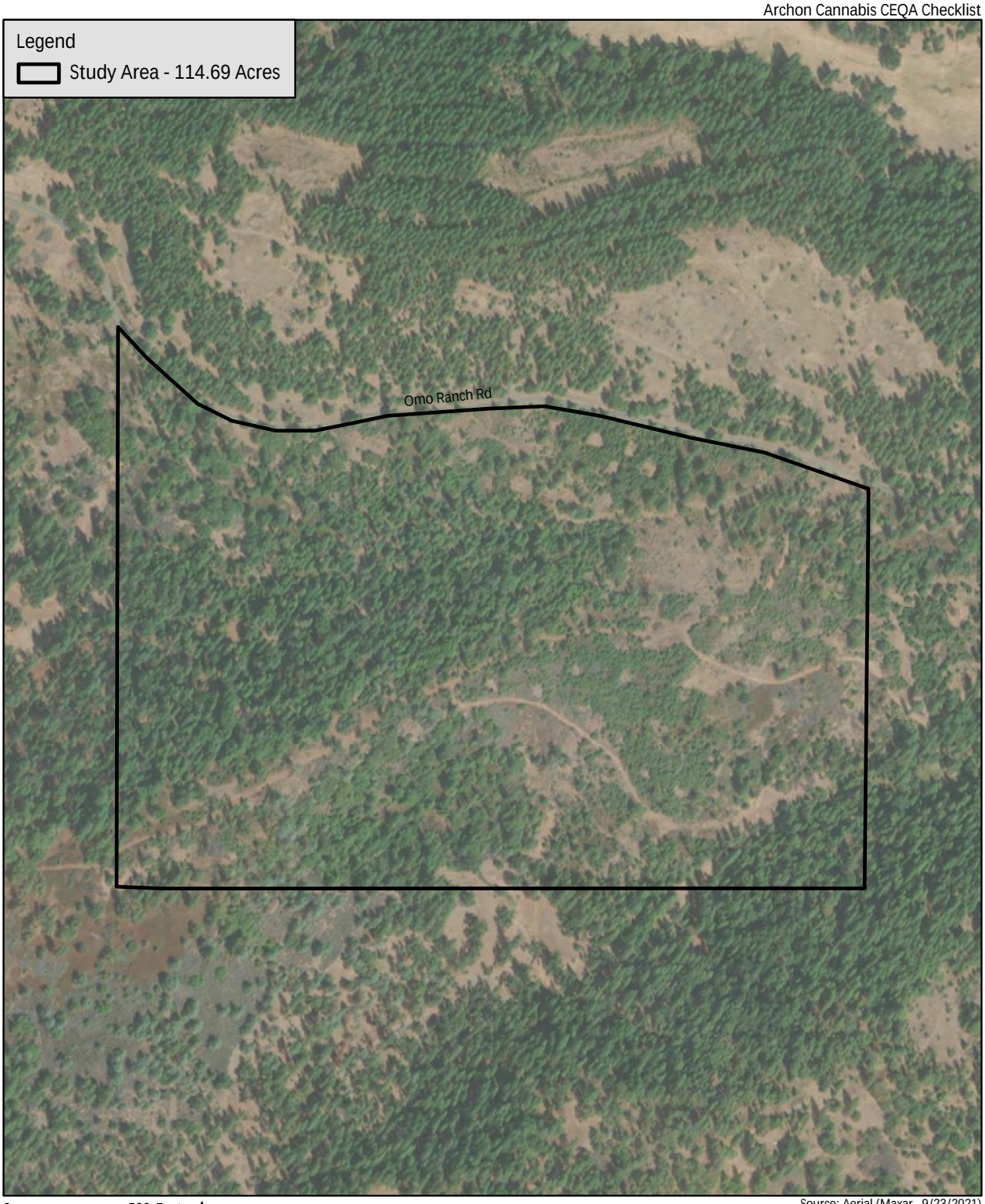


Source: Base Map Layers (Esri, USGS, NGA, NASA)

HELIX Environmental Planning

Site and Vicinity Map

Figure 1

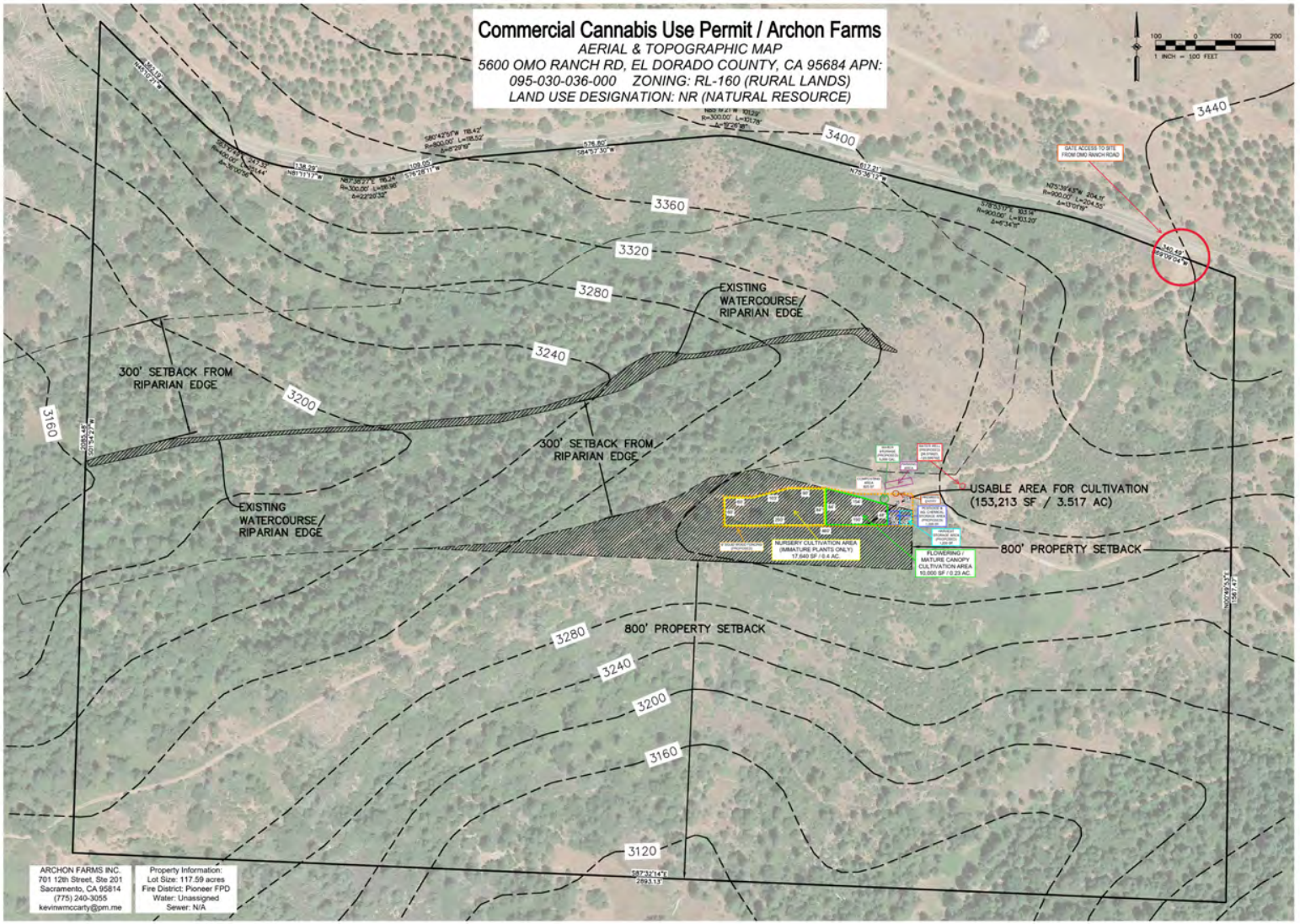


Source: Aerial (Maxar, 9/23/2021)

HELIX Environmental Planning

Aerial Map

Figure 2

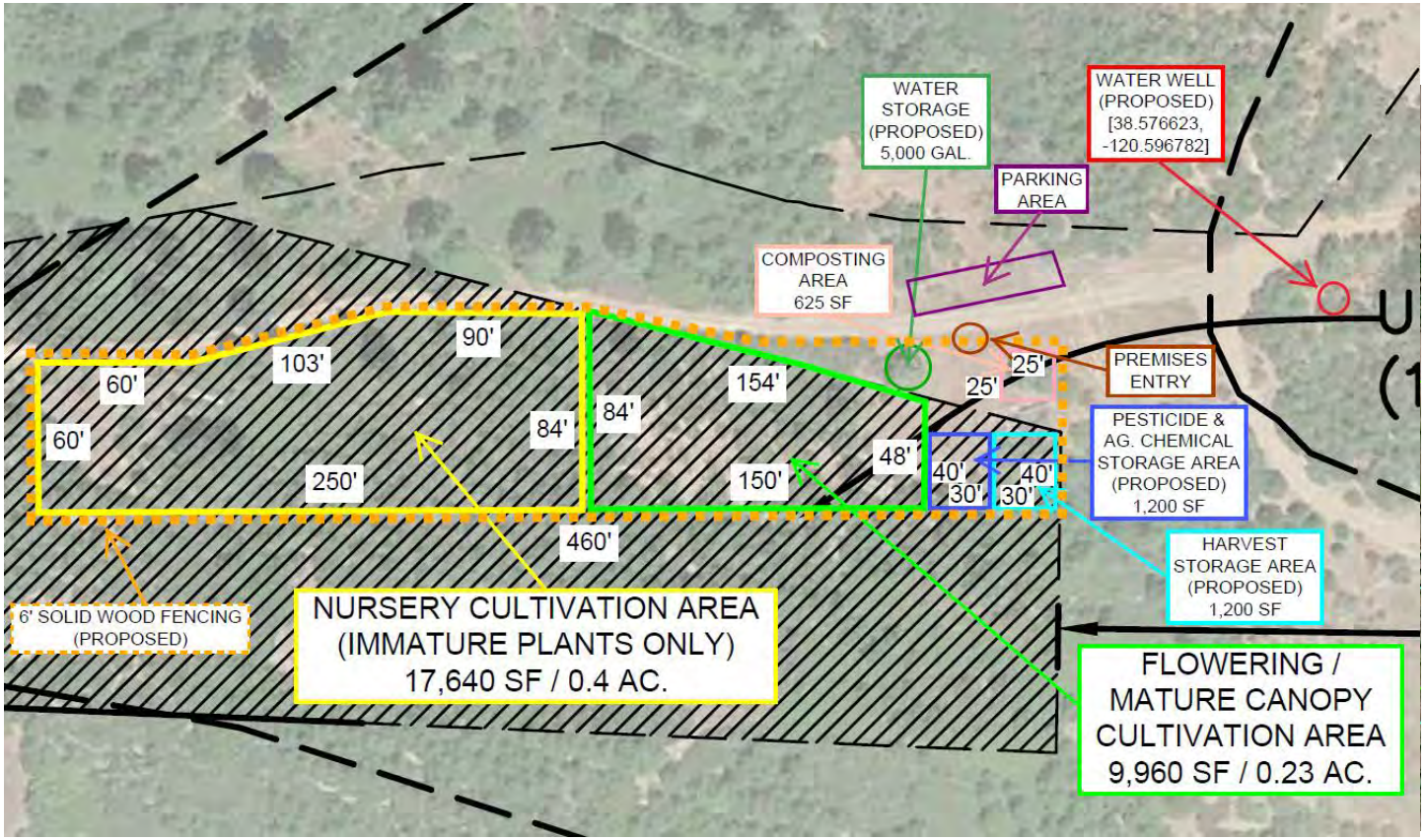


Source: RFE Engineering, Inc. 2021

HELIX Environmental Planning

Site Plan

Figure 3



Source: El Dorado County 2021

HELIX Environmental Planning

Site Plan Detail

Figure 4

Appendix B

Odor Report

EPS
ENVIRONMENTAL PERMITTING SPECIALISTS
Air Quality • Permitting • OHSA • RMP/PSM

November 10, 2021

Kevin McCarty
Managing Partner
Archon Farms, Inc.
701 12th Street
Sacramento, CA 95814

Subject: Evaluation of On-Site and Off-Site Cannabis Odors at Proposed Mixed-Light Outdoor Cannabis Cultivation in Somerset (El Dorado County)

Dear Mr. McCarty

Environmental Permitting Specialists (EPS) has reviewed the project description and site plans for the proposed mixed-light/outdoor cannabis cultivation to evaluate the potential for odors. The proposed project site is located at 5600 Omo Ranch Road, Somerset in El Dorado County. The 117.59 acre site is located in rural South central El Dorado County. There are no homes in the immediate vicinity of the project site. Figure 1 illustrates the proposed site location.

The proposed project consists of approximately 10,000 square feet of flowering canopy that would use hoop houses equipped with an odor control system. There would be an additional 17,640 square feet of immature (non-flowering) nursery cultivation area. There would be a minimum 800 foot setback from the property lines to the cultivation areas.

The potential for odors is substantially reduced since the flowing canopy would be enclosed inside six hoop houses. Unlike greenhouses that fully enclose the canopy, the ends of hoop houses are typically open allowing air, moisture and odors to escape into the atmosphere. The hoop houses for the current project, however, will have end caps that will be load bearing that will allow the installation of ventilation fans and carbon odor control system.

To determine if odor intensity associated with the proposed project will comply with Dorado County's 7 dilution to threshold (D/t) odor standard [Ordinance 5110 (5) D)], EPS

7068 Riverside Blvd., Sacramento, CA 95831 • Office: 916-687-8352 • Mobile: 916-806-8333

relied on odor intensity measurements at other greenhouses in Northern California and on odor modeling at several locations in El Dorado County, including Somerset. These are described below.

Results of Odor Monitoring

EPS has collaborated in conducting odor measurements near indoor cultivation sites. Specifically, EPS collaborated with Fulcrum Enterprises, LLC, NCM Odor Control, Inc., and Bosarge Environmental, LLC to conduct multi-day (October 1 to 3, 2019) odor intensity measurements adjacent to greenhouses.

Melanie Bosarge conducted the odor measurements using a Nasal Ranger Field Olfactometer and the results are reported in terms of DT. She is a Certified Instructor and has extensive training and experience in the use of the Nasal Ranger. She also completed training at the Odor School at St. Croix Sensory, the manufacturer of Nasal Ranger.

The odor measurements were conducted October 1 to 3, 2019 at a Northern California location (10175 Alberton Ave, Chico) that has seven (7) greenhouses each measuring 200 feet x 42 feet. Each greenhouse had 3 rows of four hundred (400) plants totaling 1,200 plants. The greenhouses were equipped with an odor control misting system. Photographs of the misting system appear in the attached report. At the time odor measurements were taken, the plants were two weeks away from harvesting. See Figures 1 to 5 in the attached report (Attachment A).

Odor intensity was measured at the greenhouse exhaust vents, at the property lines and at nearby off-site locations. A total of 17 on-site readings were taken. The results of the on-site testing were as follows:

Number of Readings	Measured D/t
4	0 (non-detect)
10	Between 2 and less than 2
2	4
1	7

In addition to on-site readings, 144 off-site readings were taken over two days under a variety of weather conditions. A complete copy of the odor monitoring report is attached (Attachment A).

These results indicate that odor intensity from the greenhouses equipped with effective odor control system would not lead to excess odors. Specifically, the odor intensity would remain at or below 7 DT. During majority of the tests (16 out of 17), odor intensity remained at or below 2 DT.

Since the current project will use hoop houses instead of greenhouses, higher level of odors may occur at the current site. EPS conservatively estimated the maximum odor intensity adjacent to hoop houses to be in the range of 4 to 8 DT.

Results of Odor Modeling

In addition, EPS has conducted extensive odor modeling in El Dorado County, including Somerset, to evaluate the dilution and transport of odors from indoor and outdoor cannabis cultivation areas. The modeling results quantify how odors would dilute when migrating from the canopy. The results are reported as a dilution factor. For example, a dilution factor of 2 means that odor intensity would be reduced by a factor of 2 or would be 50% lower.

Odor modeling results show that odor intensity declines by 88% over 100 meters or 26.7% every 100 feet. See Figure 2. Since the current project has a 800 foot setback, the maximum odor intensity is estimate to equal 0.67 DT.

Summary of Findings

EPS has reviewed the proposed cannabis cultivation project at 5600 Omo Ranch Road, Sommerset. On the basis of the project scope and description it is concluded that odor intensity along the property lines would be below 1 DT. Odor intensity off-site would be below 1 DT. Therefore, the project would meet the County's 7 DT odor limit. No further mitigation beyond what has been proposed is required.

To ensure on-going compliance, EPS staff will be available to measure odor intensity after the cannabis cultivation has commenced and the plants reach the flowering stage. If you have any questions or require additional information, please contact us at your convenience.

Sincerely,

Ray Kapahi

Ray Kapahi
Principal
Environmental Permitting Specialists
Web Site: https://www.epsconsulting.org/

ATTACHMENTS

- Figures 1 to 4
- Copy of Chico Odor Testing Report

Figure 1
Project Location Map
5600 Omo Ranch Road, Somerset, CA

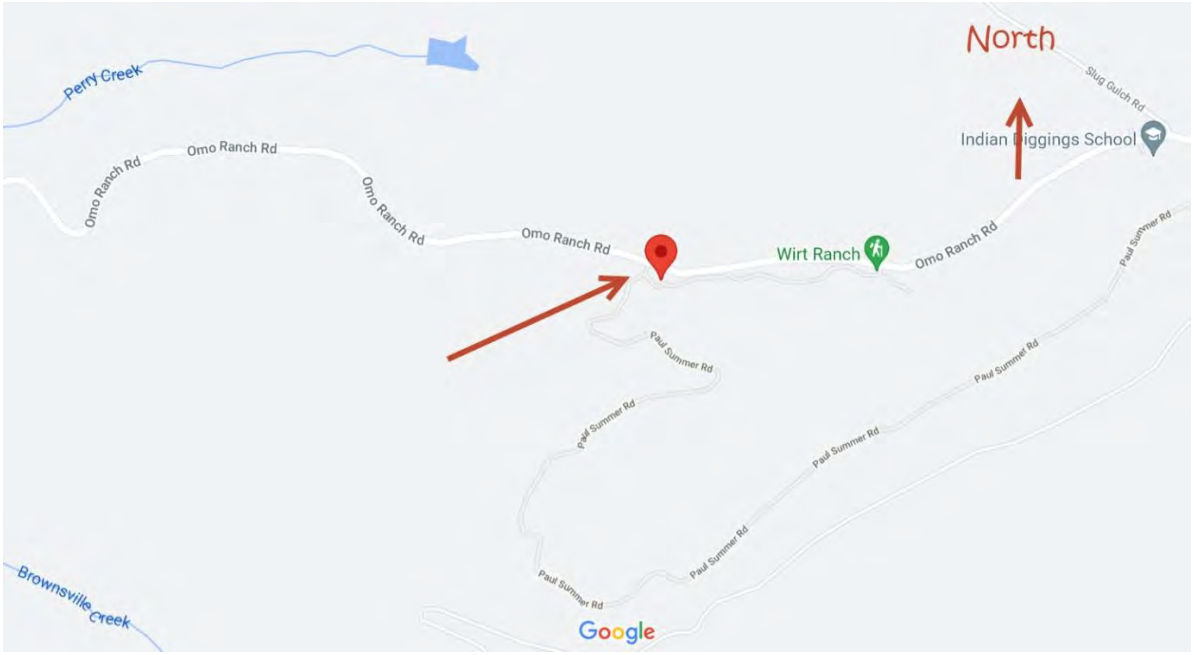


Figure 2
Site Map Showing Property Lines

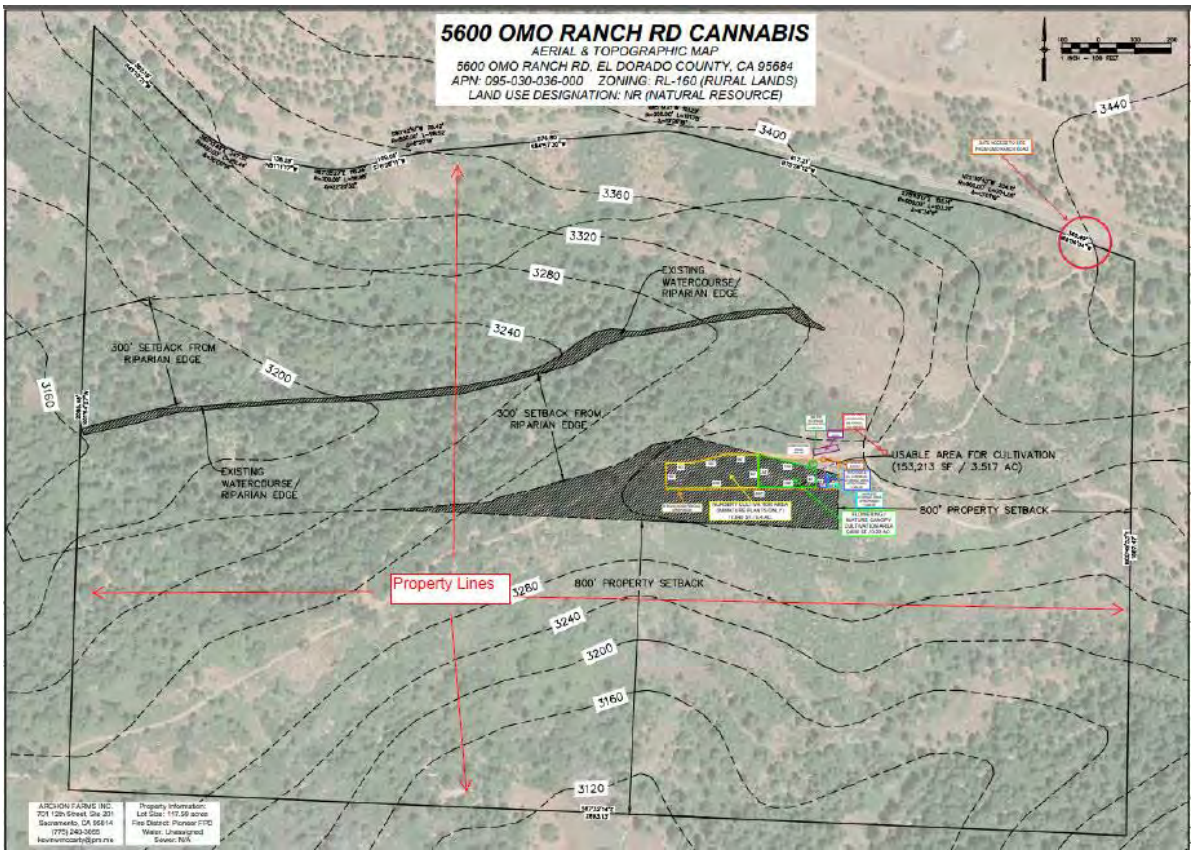


Figure 3
Site Map Showing Cultivation Areas

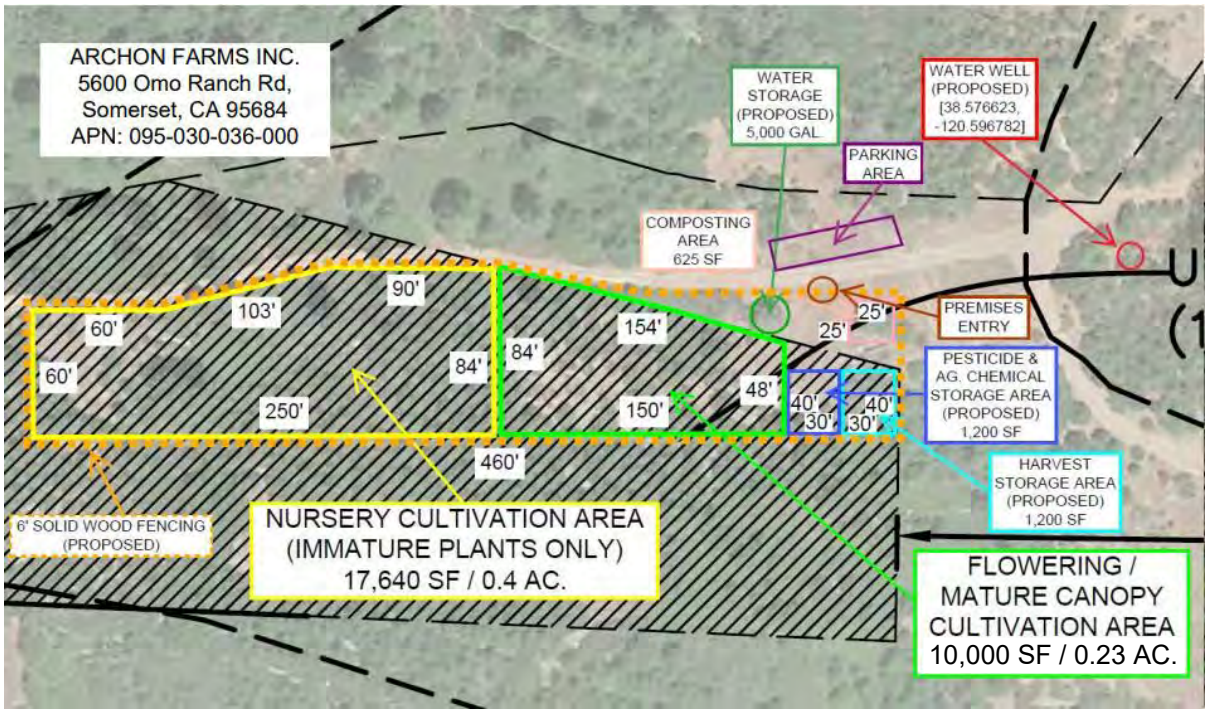
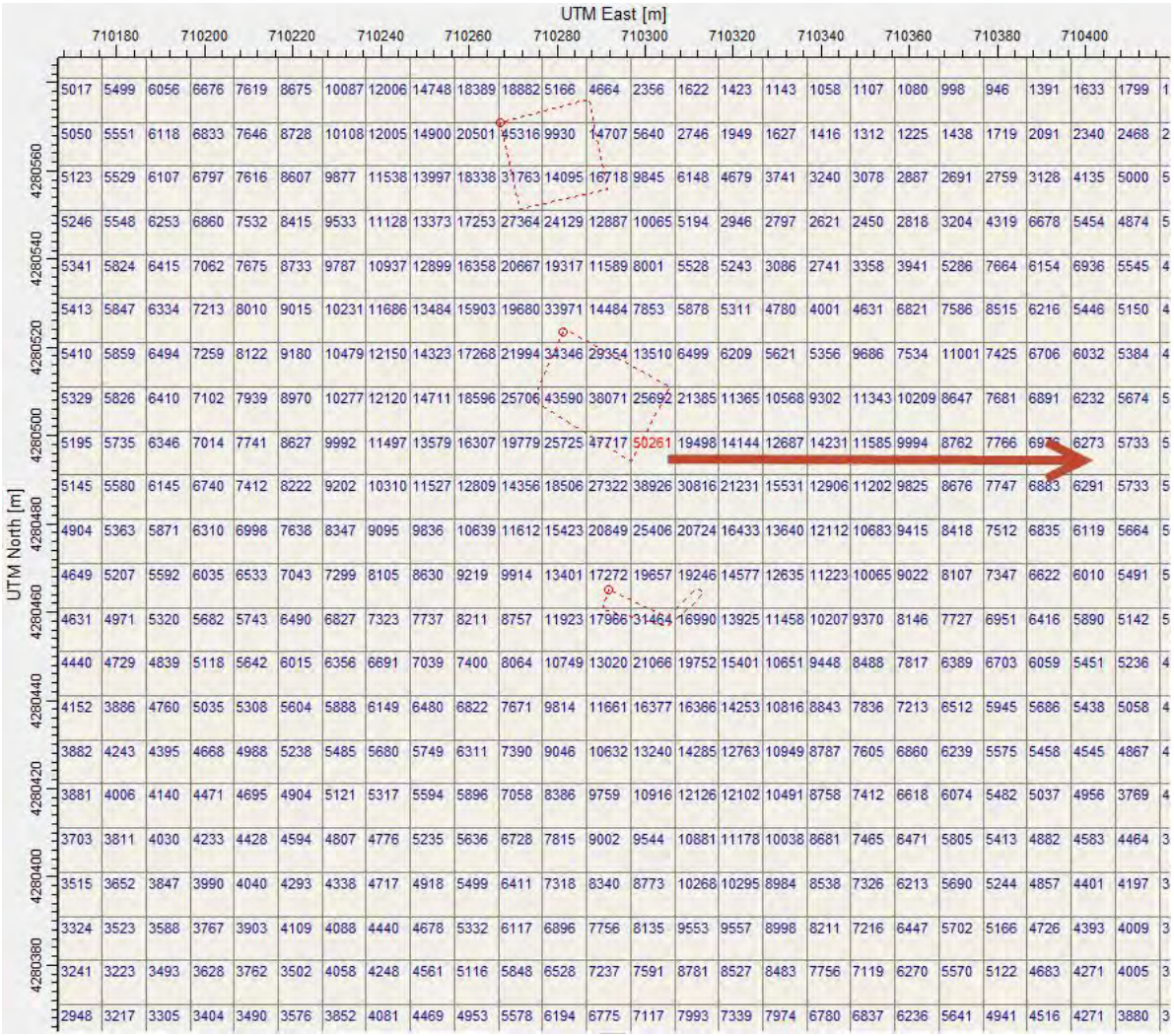


Figure 4
Odor Modeling Results Showing the Decline in Odor Intensity with Distance

(Relative Odor Concentration in micrograms/cubic meter)



Each Cell is 10 meters (32.8 feet)

Report on Odor Measurements at Greenhouses
Chico, CA

October 1 to 3, 2019

Bosarge Environmental, LLC
707 Bienville Blvd.
Ocean Springs, MS 39564
(228) 217-3180

November 1, 2019

Fulcrum Enterprises, LLC
390 Main Street
Great Barrington, MA 01239

RE: Odor Assessment Study

Introduction

Fulcrum Enterprises, LLC, (Fulcrum) retained Bosarge Environmental, LLC, as a third-party Odor Expert, to analyze the cannabis odor impact of a facility in California that is similar to a project Fulcrum is proposing for approval in Great Barrington, MA. The California facility is much older, but very similar in building size and plant production, of the proposed new facility. The Fulcrum design incorporates the same measures for odor control as the California facility. Fulcrum plans to present this odor study of an existing operational facility as a model for permitting the new facility.

Ms. Melanie Bosarge conducted ambient odor surveys the three days of October 1- 3, 2019. This time frame was selected because the operation was in full flowering stage. During this period, the greenhouses would have a crop of fully formed flowering cannabis plants at the stage when terpene odor is the greatest, creating a "worst-case-scenario" of odor for the facility.

Ms. Bosarge is a Chemical Engineer and Owner/Manager of Bosarge Environmental, LLC. She has represented St. Croix Sensory (St. Croix) as a certified instructor and provided client training and odor assessment services, as an independent contractor, since 2002. For more than thirty-five (35) years, St. Croix has been assisting facility owners, consulting engineering firms, and regulatory agencies to quantify odors from a variety of industrial, agricultural, and municipal operations, including wastewater treatment, landfills, composting, and manufacturing in both field and laboratory settings. St. Croix manufactures and markets state-of-the-art odor sampling and measurement equipment, including the Nasal Ranger Olfactometer. St. Croix's "ODOR SCHOOL"® is an internationally recognized program to prepare inspectors to conduct field evaluations of ambient odors.

Ambient Odor Assessment Methodology

Odor surveys were conducted using a newly calibrated Nasal Ranger field olfactometer to quantify odor strength when odor was noticed at each monitoring location. The Calibration Certificate appears in the Appendix as ***Exhibit 1***. Prior to odor observations, an inspector breathes through carbon cartridges for approximately one minute to "zero" nose to 100%. Upon arrival at each separate location, ambient odor is assessed with the "naked nose". If no odor is detected, the current time and "non-detected" (ND) is recorded. If an odor is detected, a reading is then taken with Nasal Ranger Olfactometer.

Using the Nasal Ranger, odor strength is measured as dilution ratios, reported as Dilution-to-Threshold (D/T) values. The Nasal Ranger Dilution-to-Threshold odor measurement is an "instantaneous" measurement, which is a recognition threshold. For example, a 4-D/T is the dilution ratio of 4-volumes of carbon filtered odor free air mixed with one-volume of ambient (odorous) air that makes the ambient odorous air "just-barely-recognizable" as an odor.

The D/T dilution ratio steps of the Nasal Ranger olfactometer used for the odor surveys were 2, 4, 7, 15, 30, and 60. If an odor is detected with the "naked nose" at a location, a measurement is taken with the Nasal Ranger. An odor in the air that is not measured at the 2-D/T dilution ratio is reported as less than 2-D/T (<2). The absence of ambient odor is reported as "non-detected" (ND).

Figure 1 – Nasal Ranger Olfactometer is a photograph taken during an odor survey at a cannabis growing operation in Colorado.

Figure No. 1 – Nasal Ranger Olfactometer

Building and Odor Control Specifications

NCM Environmental Solutions (NCM) constructed the odor neutralizing mist system for the California facility and currently provides the odor neutralizing agent and ongoing maintenance of the system. The California facility is much older, but very similar in building size and plant production, of the proposed new Fulcrum facility. Fulcrum plans to incorporate the same measures for odor control as the California facility. Consequently, one of the objectives of this odor study was to evaluate the efficiency of the exhaust and odor neutralizing system.

The cannabis growing area is made up of seven (7) greenhouses, two hundred (200) feet in length and forty-two (42) feet in width. Each greenhouse has three (3) rows of four hundred (400) plants, totaling twelve hundred (1,200) plants per greenhouse. The greenhouses have multiple holes on the siding and roof, as shown in pictures in ***Exhibit 2.***

NCM system specifications include an electric 1 HP system with a 1.75 GPM high pressure atomizing pump, operating at 800 PSI. During the odor study, the chemical injection pump was not automated. It was adjusted by hand using two knobs, as shown in photographs in ***Exhibit 2.***

The exhaust vents are fifty-five inches, square shaped, and powered by a 1-HP motor. Each exhaust vent has three (3) NCM 1.9 GPH nozzles. The nozzles are located on the exhaust vents, centered and positioned in a straight line. The California facility maintains the odor neutralizer injection pump at their preferred setting of 1000:1 dilution ratio. This set dilution ratio achieves the level of odor control needed and works within operations budget. Growers have determined that the facility has low levels of cannabis odors without the system on; therefore, the 1000:1 dilution ratio is sufficient for that site.

Odor Survey – Introduction and Mapping

Upon arrival at the facility on the afternoon of October 1, 2019, Ms. Bosarge was taken on an extensive tour of the site. Each step of the odor control system was identified and explained. A plan of action was developed and coordinated. The first odor survey was performed to test the efficiency of the odor control system. After concluding the onsite test, Ms. Bosarge investigated the area within the security fence, and along accessible residential, commercial and agricultural areas throughout neighborhood. Meteorological conditions were recorded and several locations were mapped and designated as survey locations. No odors were detected past the perimeter of the property during this initial investigation.

After the initial tour and first round of controlled test measurements of the odor neutralizer, Ms. Bosarge continued independently to develop a monitoring plan and complete several additional surveys during the three-day odor assessment study. Sixteen (16) onsite locations within the fenced area of the property and twelve (12) locations in the surrounding community were designated and mapped by recording latitude and longitude coordinates at each location. Unique identification codes were assigned to each location. The onsite locations were designated as Locations A through P. The offsite locations were designated as Locations 1 through 12. The center point of the cannabis greenhouses was designated as Location X. Latitude and longitude coordinates for each location were entered into Odor Tracker software to produce Google Earth Maps of the areas within the property and the surrounding community.

Table No. 1 Cannabis Facility Odor Monitoring Locations lists the center of the cannabis facility as Location X, along with twenty-eight (28) ambient odor survey locations. The table specifies an identification number, the latitude and longitude coordinates for each location and whether each location is onsite or offsite.

Table 1 - Cannabis Facility Odor Monitoring Locations

Loc #		Name	Latitude	Longitude
1	Offsite			
2	Offsite			
3	Offsite			
4	Offsite			
5	Offsite			
6	Offsite			
7	Offsite			
8	Offsite			
9	Offsite			
10	Offsite			
11	Offsite			
12	Offsite			
A	Onsite	Test Area 6 Ft from Exhaust		
B	Onsite	Test Area 12 FT From Exhaust		
C	Onsite	Test Area 24 Ft From Exhaust		
D	Onsite	West Corner of Greenhouses		
E	Onsite	South Corner of Greenhouses		
F	Onsite	South Midpoint of Greenhouses		
G	Onsite	East Corner of Greenhouses		
H	Onsite	East Corner of Whse		
I	Onsite	East Midpoint of Whse		
J	Onsite	North Corner of Whse		
K	Onsite	North Corner of Greenhouses		
L	Onsite	North Center of Greenhouses		
M	Onsite	Front Gate To Property		
N	Onsite	Post by Dumpster		
O	Onsite	Post Behind House		
P	Onsite	On Hill Behind House		
X	Onsite	Reference Center of Facility		

Figure No. 2 - Odor Inspection Locations Full View identifies the center of the cannabis facility as Location X and each of the twenty-eight (28) monitoring locations on a Google Earth map. The offsite Locations 1 through 12 are featured in this figure.

Figure No. 2 - Odor Inspection Locations Full View (Google Earth Map)

Figure No. 3 - Onsite Odor Inspection Locations identifies the center of the cannabis facility as Location X, and each of the sixteen (16) onsite monitoring Locations A through P on a Google Earth map.

Figure No. 3 - Onsite Odor Inspection Locations (Google Earth Map)

Odor Survey – Discussion

Fourteen (14) ambient odor surveys were conducted during the three-day study. Seven (7) of the rounds were performed offsite, in the surrounding community, and seven (7) rounds were conducted onsite. Two (2) of the onsite rounds, referred to as Test Rounds, included locations on the side of the greenhouses where the odor control system is installed. The objective of these Test Rounds was to evaluate the efficiency of the exhaust and odor neutralizing system.

For the Test Rounds, Locations A, B and C were designated at points six feet, twelve feet and twenty-four feet away from the exhaust fan of the greenhouses with the most mature plants. The exhaust fan, when operational, was blowing from the greenhouses at approximately sixteen MPH. The Test Rounds were performed under different scenarios to test the efficiency of the exhaust and odor neutralizing system.

Five (5) additional odor surveys were conducted onsite, within the facility property over the three-day odor study. During each survey, the date, time, odor reading and meteorological conditions, including temperature, humidity, precipitation, sky conditions, wind speed and wind direction were recorded at each location. Each survey was recorded separately and odor survey data reports appear in the Appendix as ***Exhibit 3***.

Approximately one hundred and sixty-eight (168) odor observations were recorded during the three-day study. During those days, seven offsite odor surveys were completed and seventy-nine (79) offsite observations were recorded. No cannabis odor was detected offsite at the property perimeter or in the community during those three days. The meteorological conditions, time of day and level of odor treatment varied between each offsite survey. Based on the results of the Odor Study, cannabis odor from the cultivation process does not leave the property.

During the same three-day timeframe, seven (7) onsite odor surveys were conducted and eighty-nine (89) onsite observations were recorded. No cannabis odor was detected during fifty-two (52) of those observations. Cannabis odor was detected at <2 D/T during twenty-three (23) observations and 2 D/T during nine (9) observations. Cannabis odor was detected at a level of 4 D/T during three (3) observations and 7 D/T during two (2) observations. During each observation of 4 D/T and 7D/T, the exhaust system had just been activated without odor neutralizer treatment, after cannabis odors had built up over night in the greenhouses. Those values returned to 2 D/T or less, within minutes after the greenhouses were properly vented and/or treated. These levels are extremely low for onsite operations.

Meteorological data and odor observation readings, from each Round, were loaded into the Odor Tracker software. ***Exhibit 3*** displays the results of each of the fourteen (14) Rounds. ***Exhibit 4*** contains several Maps that were created by the Odor Tracker Software, utilizing the entered data.

Odor Rounds Summary

Test Round 1 - Onsite

On the first afternoon, Test Round 1 was conducted from approximately 2:45 PM until 3:30 PM. In ***Exhibit 3,*** the Round 1 Onsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 30%, and the temperature was 74 degrees F. The wind was moderate and blowing from the west northwest. Prior to the odor observations, the exhaust and odor neutralizer systems were turned off. Cannabis odors were allowed to accumulate within the greenhouses. At 2:45 PM, the ventilation and exhaust system was turned on, without engaging the mist system. Measurements were taken at the three locations A, B and C, as the exhaust fans were turned on, but with no water mist or odor neutralizer. A reading of 7 D/T was taken at Location A with the Nasal Ranger. Within two minutes, a reading of 4 D/T was taken at Location B. Within two more minutes, a reading of 2 D/T was taken at Location C. These readings are higher than normal, because of the accumulation of cannabis odors, with an outdoor temperature of 74 degrees F and without any consistent ventilation in the greenhouses.

The next test was performed with the exhaust fans on and water mist only. After the system was on for approximately five minutes, a reading of 4 D/T was taken at Location A. Within two minutes, a reading of 2 D/T was taken at Location B. Within two more minutes, a reading of <2 D/T was taken at Location C. The lower readings were due to a combination of additional venting time and the water mist.

The odor control system was fully operational for the third and fourth set of readings. Each survey was within five to eight minutes of each other and results were identical at Locations A, B and C. A reading of <2 D/T was taken at Locations A and B. At Location C, no odor was detected. From these test results, it appears that a fully operational odor control system lowers the odor intensity readings from 7 D/T to <2 D/T, at six to twelve feet from the greenhouse ventilation fan. At twenty-four feet, the odor intensity goes from 2 D/T to non-detected.

Round 2 - Onsite

Several more onsite locations were designated and observed that afternoon, during Round 2, from 3:36 PM until 4:11 PM. The sky was sunny with no precipitation. The humidity was 20%, and the temperature was 74 degrees F. The wind was moderate and blowing from the northwest. The odor control system was fully operational. Odor was observed at <2 D/T at Locations D, E and G. No odors were detected at Locations M or K.

Round 3 - Offsite

After the initial onsite investigation, several offsite locations were designated and observed during Round 3, from approximately 4:13 PM until 5:06 PM. In ***Exhibit 3,*** the Round 3 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 19%, and the temperature was 74 degrees F. The wind was moderate and blowing from the west northwest. The odor control system was fully operational. No odors were detected.

Round 4 - Offsite

On the second day of the odor study, a few more offsite locations were designated and observed during Round 4, from approximately 9:56 PM until 10:30 PM. In ***Exhibit 3,*** the Round 4 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 51%, and the temperature was 55 degrees F. The wind was calm and blowing from the north. The odor control system was not operational yet. No odors were detected.

Test Round 5 - Onsite

Several more onsite locations were designated and observed during Round 5, from approximately 11:00 AM until 11:45 AM. In ***Exhibit 3,*** the Round 5 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 30 - 36%, and the temperature was 63 - 64 degrees F. The wind was light and variable. The odor control system had been during the night and had not been turned on yet. Odor was detected at a level of 2 D/T at Location O. At that moment, this location was downwind of greenhouses. Odor was detected at a level of <2 D/T at Locations A, B and F. No odors were detected at the other onsite locations.

Test Round 6 - Onsite

On the second day, Test Round 6 was conducted from approximately 11:40 AM until 12:24 PM. Additional onsite Locations L & K were incorporated into Test Round 6. In ***Exhibit 3,*** the Round 6 Onsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 30%, and the temperature was 64 degrees F. The wind was light and blowing from the north. Prior to the odor observations, the exhaust and odor neutralizer systems were still turned off. Cannabis odors were accumulating within the greenhouses, but appeared to be staying within the greenhouses. Readings were taken at Locations A and B at a level of <2 D/T. No odor was detected at Locations C or L. At approximately 11:45 PM, the ventilation and exhaust system was turned on, without engaging the mist system and allowed to vent for ten minutes. A reading of 2 D/T was taken at Locations A, B and C, within two minutes of each other. Within five to six more minutes, a reading of <2 D/T was taken at Locations L and K. These readings are higher than the first set of readings, because of the discharge of accumulated cannabis odors in the greenhouses.

The odor control system was fully operational during the next set of readings. The system was allowed to operate for fifteen minutes before odor was measured. A reading of <2 D/T was taken at Locations A, B and C. At Locations L and K, no odor was detected. From these test results, it appears that a fully operational odor control system, operated for fifteen to twenty minutes, lowers the odor intensity readings to non-detectable up to <2 D/T, at six to twenty-four feet from the greenhouse perimeter.

Round 7 – Onsite

After Test Round 6, one more set of observations were taken onsite, from approximately 12:26 PM until 12:51 PM. In ***Exhibit 3,*** the Round *7* Onsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 25%, and the temperature was 70 degrees F. The wind was light and blowing from the north. The odor control system was fully operational for approximately twenty to forty-five minutes. No odors were detected. This onsite round indicates that under the circumstances stated above, the odor control system, when operated consistently for less than one hour, reduces all onsite cannabis odor to zero.

Round 8 – Offsite

Offsite locations were observed during Round 4, from approximately 12:58 PM until 1:28 PM. In ***Exhibit 3,*** the Round 8 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 24%, and the temperature was 72 degrees F. The wind was light and blowing from the north. The odor control system was fully operational. No odors were detected.

Round 9 – Offsite

Offsite locations were observed during Round 9, from approximately 6:09 PM until 6:34 PM. In ***Exhibit 3,*** the Round 9 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 21%, and the temperature was 72 degrees F. The wind was moderate and blowing from the south southwest. The odor control system was not fully operational. The ventilation and exhaust system were operating; however, due to an issue with a pump, the odor neutralizer was not being used. No odors were detected.

Round 10 – Offsite

On the third day of the odor study, offsite locations were observed during Round 10, from approximately 9:42 AM until 10:09 AM. In ***Exhibit 3,*** the Round 10 Offsite Data Sheet displays the test data. The sky was mostly cloudy and foggy. The humidity was 51%, and the temperature was 59 degrees F. The wind was moderate and blowing from the south. The ventilation exhaust and odor control system were not in operation. No odors were detected.

Round 11 – Onsite

The next round was conducted from approximately 10:11 AM until 10:35 AM. In ***Exhibit 3,*** the Round 11 Onsite Data Sheet displays the test data. The sky was partly cloudy with no precipitation. The humidity was 37%, and the temperature was 60 degrees F. The wind was light and blowing from the north. Prior to the odor observations, the exhaust and odor neutralizer systems were still turned off. Cannabis odors had been accumulating within the greenhouses overnight.

At approximately 10:29 AM, the ventilation and exhaust system turned on automatically, because it was set to activate based on temperature in the greenhouses. The readings prior to the system coming on were relatively low. Readings at Locations J, O and K were <2 D/T. No odor was detected at any other locations before the system engaged. Once the ventilation and exhaust system turned on, a reading of 7 D/T was taken at Location A. A reading of 4 D/T was taken at Location B. A reading of 2 D/T was taken at Locations C and L. These readings are high and consistent with values obtained in Test Round 1, on the first day of the odor study, when the exhaust system was turned on, without the odor neutralizer. The elevated values are because of the discharge of accumulated cannabis odors in the greenhouses.

Round 12 – Onsite

After Round 11, one more set of observations were taken onsite, from approximately 11:20 AM until 11:50 AM. In ***Exhibit 3,*** the Round 12 Onsite Data Sheet displays the test data. The sky was partly cloudy with no precipitation. The humidity was 28%, and the temperature was 67 degrees F. The wind was light and blowing from the north. The ventilation and exhaust system had been operational for approximately fifty minutes to one hour and twenty minutes. The odor neutralizing system was still down because of the pump malfunction. Odors were detected at a level of 2 D/T at Location A. Odor was detected at a level of <2 D/T at Locations B, C, L and K. No odors were detected at any other locations. This onsite round indicates that under the circumstances stated above, the ventilation and exhaust system operating alone reduces the odor level onsite to a level of 2 D/T or less, when operated consistently.

Round 13 – Offsite

Offsite locations were observed during Round 13, from approximately 12:00 PM until 12:20 PM. In ***Exhibit 3,*** the Round 13 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 26%, and the temperature was 68 degrees F. The wind was light and blowing from the north. The odor control system was not fully operational. The ventilation and exhaust system were operating; however, due to an issue with a pump, the odor neutralizer was not being used. No odors were detected.

Round 14 - Offsite

Offsite locations were observed during Round 14, from approximately 3:40 PM until 4:10 PM. In ***Exhibit 3,*** the Round 14 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 16%, and the temperature was 77 degrees F. The wind was moderate and blowing from the south southeast. The odor control system was not fully operational. The ventilation and exhaust system were operating; however, due to an issue with a pump, the odor neutralizer was not being used. No odors were detected.

Odor Survey Conclusions

No odors were detected at any of the designated locations throughout the California Community, during the three-day Odor Study. Seven (7) offsite surveys were conducted under three different operational conditions including 1) ventilation fan exhaust and odor neutralizer treatment 2) ventilation fan exhaust and no odor neutralizer treatment and 3) no ventilation fan exhaust and no odor neutralizer treatment. Based on these findings, this facility or one similar in size, construction, cultivation and basic odor control measures, should not adversely affect the surrounding community, even in times when odor control equipment is out-of-service for maintenance or not working properly.

In each case of onsite odor detection, where proper ventilation, exhaust and odor neutralizer treatment was in place, the odor was faint and intermittent at each location where <2 D/T was recorded. These locations were along the exhaust side of the greenhouses and either next to the greenhouses or directly downwind of the exhaust fans. This value indicates a barely discernible odor with the "naked nose", but under the threshold to be considered a recognizable odor with the Nasal Ranger Olfactometer on the lowest setting of 2-D/T.

Based on the findings in this Odor Study, Bosarge Environmental, LLC, concludes that "no discernible cannabis odor" was detected outside of this facility and is barely recognizable within 25 to 100 feet of the greenhouses. Consequently, this cannabis operation or one similar in size, construction, cultivation and odor control measures, should not adversely affect the surrounding community.

Submitted by,

Melanie Bosarge

Melanie Bosarge
Bosarge Environmental, LLC

APPENDIX

EXHIBIT 1

Nasal Ranger Olfactometer Calibration Certificate

CERTIFICATE OF CALIBRATION

for the

Nasal Ranger® Field Olfactometer

Serial Number : 90201429 Calibration Date : 7/15/2019

Dial D/T	Actual D/T	% Variance
60	60.02	0.0%
30	30.03	0.1%
15	15.07	0.5%
7	7.00	0.0%
4	4.00	0.0%
2	2.00	0.0%

This document certifies this Nasal Ranger® Field Olfactometer, specified by unique Serial Number, was calibrated using a NIST traceable primary gas flow standard by St. Croix Sensory, Inc.

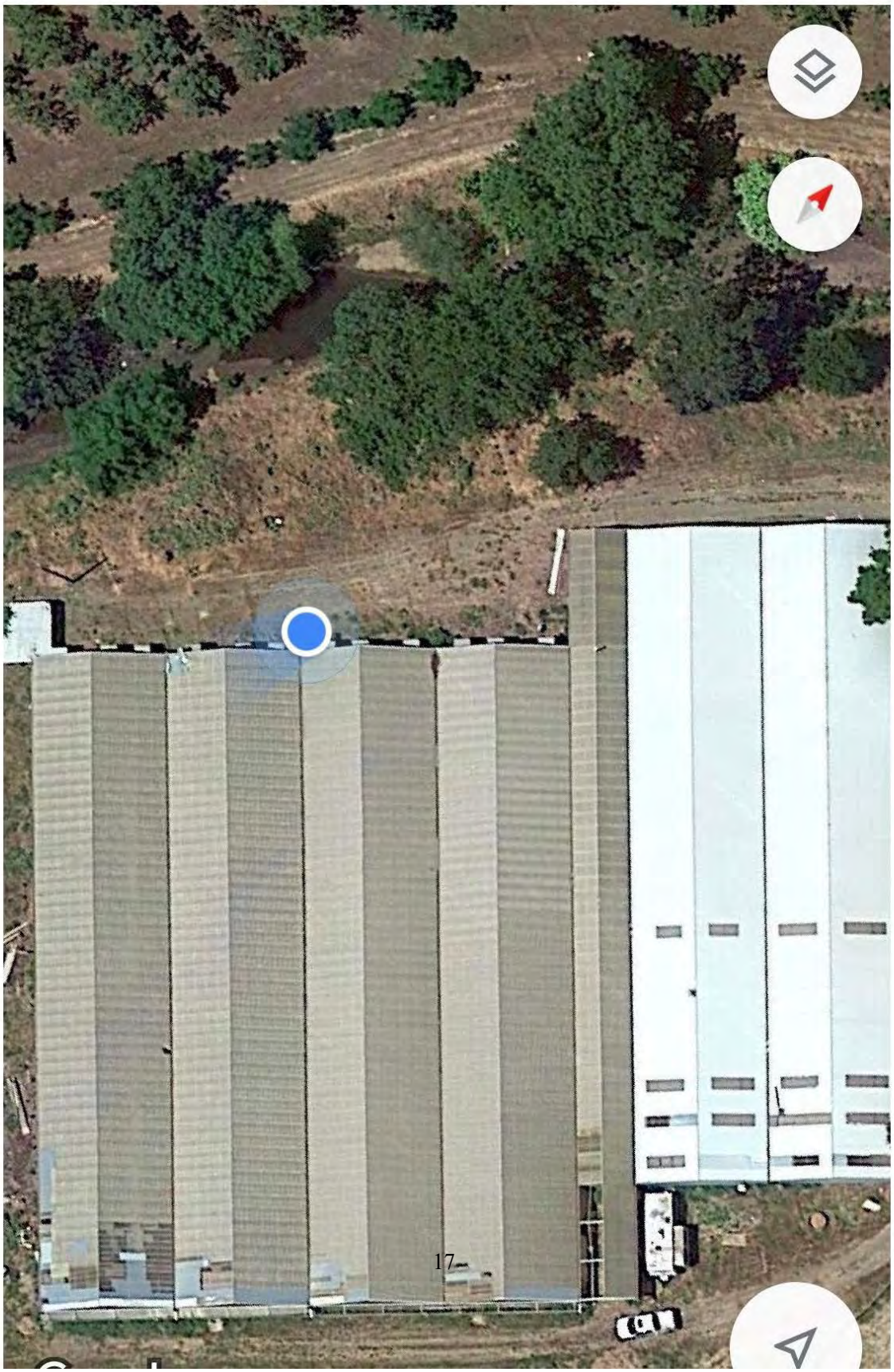
St. Croix Sensory, Inc.
1150 Stillwater Blvd. N.
Stillwater, MN 55082 USA
+1-651-439-0177
info@nasalranger.com

NASAL RANGER®

Benjamin Lane
Calibration Technician

Exhibit 2

Photographs from the California Property




0
20
30
40
50
60
70
80
90
100
10
20
30
40
50
60
70
90
100

Exhibit 3

Onsite and Offsite Odor Survey Data Sheets

ROUND 1 - ONSITE
10/1/19 2:50 PM - 3:26 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/1/2019 15:26	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:24	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:22	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:20	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:17	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:14	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:06	C	Test Area 24 Ft From Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:04	B	Test Area 12 FT From Exhaust	2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:02	A	Test Area 6 Ft from Exhaust	4	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 14:54	C	Test Area 24 Ft From Exhaust	2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 14:52	B	Test Area 12 FT From Exhaust	4	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 14:50	A	Test Area 6 Ft from Exhaust	7	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92

ROUND 2 - ONSITE
10/1/19 3:36 PM - 4:11 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/1/2019 16:11	M	Front Gate To Property	ND	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:53	E	South Corner of Greenhouses	<2	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:49	G	East Corner of Greenhouses	<2	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:44	K	North Corner of Greenhouses	ND	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:36	D	West Corner of Greenhouses	<2	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95

ROUND 3 - OFFSITE
10/1/19 4:13 PM - 5:06 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/1/2019 17:06	6		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 17:02	10		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:59	11		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:56	12		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:24	9		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:20	8		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:13	1		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94

ROUND 4 - OFFSITE
10/2/19 9:56 AM - 10:30 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/2/2019 10:30	1		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:28	2		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:24	3		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:21	6		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:19	4		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:17	5		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:15	7		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:12	8		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:08	9		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:04	10		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:00	11		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 9:56	12		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07

ROUND 5 - ONSITE
10/2/19 11:00 AM - 11:45 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/2/2019 11:45	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:43	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:42	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:40	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:38	D	West Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:36	O	Post Behind House	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:33	P	On Hill Behind House	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:31	N	Post by Dumpster	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:27	E	South Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:26	F	South Midpoint of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:24	G	East Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:22	H	East Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:20	I	East Midpoint of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:18	J	North Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:15	K	North Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:00	M	Front Gate To Property	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05

ROUND 6 - ONSITE
10/2/19 11:40 AM - 12:24 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/2/2019 12:24	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:23	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:22	C	Test Area 24 Ft From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:21	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:19	K	North Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:05	K	North Corner of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:05	K	North Corner of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:04	L	North Center of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:59	C	Test Area 24 Ft From Exhaust	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:57	B	Test Area 12 FT From Exhaust	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:55	A	Test Area 6 Ft from Exhaust	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:45	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:43	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:42	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:40	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05

ROUND 7 - ONSITE
10/2/19 12:26 PM - 12:51 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/2/2019 12:51	E	South Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:50	F	South Midpoint of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:48	G	East Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:47	H	East Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:46	I	East Midpoint of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:44	N	Post by Dumpster	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:43	M	Front Gate To Property	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:42	P	On Hill Behind House	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:41	O	Post Behind House	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:40	J	North Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:33	K	North Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:30	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:26	D	West Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03

ROUND 8 - OFFSITE
10/2/19 12:58 PM - 1:28 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/2/2019 13:28	11		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:25	12		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:21	10		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:19	8		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:18	9		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:16	7		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:14	6		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:12	5		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:10	4		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:06	3		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:04	2		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 12:58	1		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02

ROUND 9 - OFFSITE
10/2/19 6:09 PM - 6:34 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/2/2019 18:34	12		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:31	11		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:29	10		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:27	9		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:25	8		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:22	7		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:20	6		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:18	5		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:16	4		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:14	3		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:12	2		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:09	1		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95

ROUND 10 - OFFSITE
10/3/19 9:42 AM - 10:09 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/3/2019 10:09	1	[redacted]	ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:08	2		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.30
10/3/2019 10:07	3		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:06	4		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:05	5		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:04	6		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:56	12		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:54	11		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:50	10		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:46	9		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:44	8		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:42	7		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00

ROUND 11 - ONSITE
10/3/19 10:11 AM - 10:35 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/3/2019 10:35	C	Test Area 24 Ft From Exhaust	2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:34	B	Test Area 12 FT From Exhaust	4	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:33	A	Test Area 6 Ft from Exhaust	7	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:31	D	West Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:29	L	North Center of Greenhouses	2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:27	K	North Corner of Greenhouses	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:25	O	Post Behind House	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:23	P	On Hill Behind House	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:21	J	North Corner of Whse	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:19	I	East Midpoint of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:17	E	South Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:16	F	South Midpoint of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:15	G	East Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:14	H	East Corner of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:13	N	Post by Dumpster	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:11	M	Front Gate To Property	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00

ROUND 12 - ONSITE
10/3/19 11:20 AM - 11:50 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/3/2019 11:50	M	Front Gate To Property	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:45	A	Test Area 6 Ft from Exhaust	2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:44	B	Test Area 12 FT From Exhaust	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:43	C	Test Area 24 Ft From Exhaust	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:41	D	West Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:39	L	North Center of Greenhouses	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:38	K	North Corner of Greenhouses	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:35	P	On Hill Behind House	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:34	O	Post Behind House	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:32	J	North Corner of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:29	N	Post by Dumpster	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:27	I	East Midpoint of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:25	H	East Corner of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:23	G	East Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:21	F	South Midpoint of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:20	E	South Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99

ROUND 13 - OFFSITE
10/3/19 12:00 PM - 12:20 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/3/2019 12:20	12		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:18	11		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:15	10		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:12	9		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:10	8		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:08	7		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:06	6		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:05	5		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:04	4		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:03	3		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:02	2		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:00	1		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98

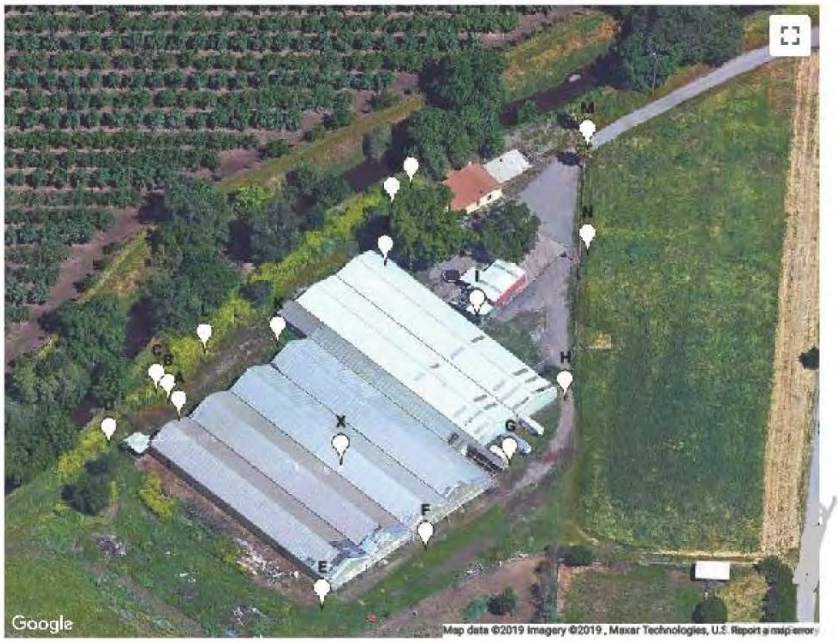
ROUND 14 - OFFSITE
10/3/19 3:40 PM - 4:10 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/3/2019 16:10	1		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:08	2		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:06	3		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:04	4		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:02	5		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:00	6		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:52	12		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:50	11		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:48	10		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:44	9		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:42	8		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:40	7		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90

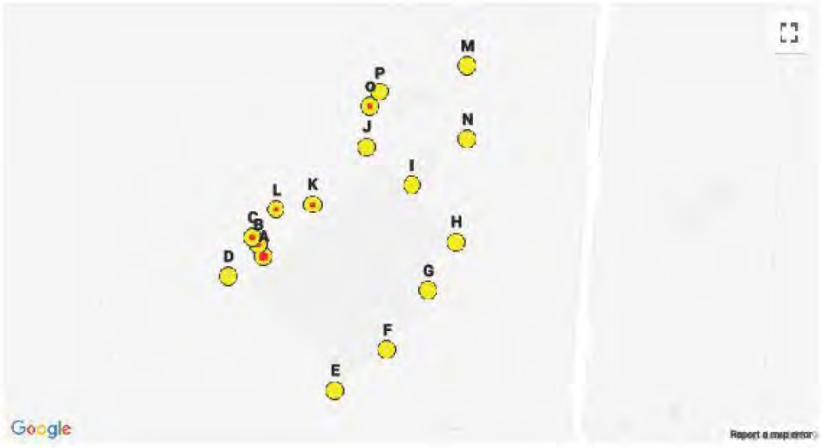
Exhibit 4

Onsite and Offsite Odor Data Maps


M
P
O
N
J
I
K
L
C
B
A
H
D
X
G
F
Google


M
N
L
K
C
B
A
D
H
X
G
F
E
Google
Map data ©2019 Imagery ©2019 , Maxar Technologies, U.S. Report a map error

Odor DT Criteria (Eclipse Key)				Date Range: 10/1/2019 thru 10/3/2019
Avg. Log	Avg.	Eclipse Symbol	Description	Any Time of Day
0.000	= ND		Full Sun	Assessment Type: Inspection
0.001-0.301	< 2		1/4 Eclipse	(DT)
0.301-0.845	>= 2		1/2 Eclipse	Include Non-Detect
0.846-	>= 7		Full Eclipse	



Odor DT Criteria (Eclipse Key)			
Avg. Log	Avg.	Eclipse Symbol	Description
0.000	= ND		Full Sun
0.001-0.301	< 2		1/4 Eclipse
0.301-0.845	>= 2		1/2 Eclipse
0.846-	>= 7		Full Eclipse

Date Range: 10/1/2019 thru 10/3/2019
Any Time of Day
Assessment Type: Inspection (DT)
Include Non-Detect

Odor DT Criteria (Eclipse Key)				Date Range: 10/1/2019 thru 10/3/2019
Avg. Log	Avg.	Eclipse Symbol	Description	Any Time of Day
0.000	= ND		Full Sun	Assessment Type: Inspection
0.001-0.301	< 2		1/4 Eclipse	(DT)
0.301-0.845	>= 2		1/2 Eclipse	Include Non-Detect
0.846-	>= 7		Full Eclipse	

Appendix C

Biological Resources Assessment

BIOLOGICAL RESOURCES ASSESSMENT FOR THE CANNABIS CULTIVATION OPERATION AT 5600 OMO RANCH ROAD, SOMERSET, CALIFORNIA

November 12, 2021

Prepared by:

G.O. Graening, PhD and Tim Nosal, MS
Natural Investigations Company, Inc.
3104 O Street, #221, Sacramento, CA 95816

NATURAL INVESTIGATIONS CO.
WWW.NATURALINVESTIGATIONS.COM

TABLE OF CONTENTS

1. INTRODUCTION 2
1.1. PROJECT LOCATION AND DESCRIPTION 2
1.2. SCOPE OF ASSESSMENT 2
1.3. REGULATORY SETTING 3
1.3.1. Special-status Species Regulations 3
1.3.2. Water Resource Protection 4
1.3.3. Tree Protection 5
2. ENVIRONMENTAL SETTING 6
3. METHODOLOGY 6
3.1. PRELIMINARY DATA GATHERING AND RESEARCH 6
3.2. FIELD SURVEY 6
3.3. MAPPING AND OTHER ANALYSES 7
4. RESULTS 8
4.1. INVENTORY OF FLORA AND FAUNA FROM FIELD SURVEY 8
4.2. VEGETATION COMMUNITIES AND WILDLIFE HABITAT TYPES 8
4.2.1. Terrestrial Vegetation Communities 8
4.2.2. Wildlife Habitat Types 9
4.2.3. Critical Habitat and Special-status Habitat 9
4.2.4. Habitat Plans and Wildlife Corridors 9
4.3. LISTED SPECIES AND OTHER SPECIAL-STATUS SPECIES 9
4.3.1. Reported Occurrences of Listed Species and Other Special-status Species 9
4.3.2. Listed Species or Special-status Species Observed During Field Survey 15
4.3.3. Analyses of Likelihood of Occurrence of Special-status Species 15
4.4. POTENTIALLY-JURISDICTIONAL WATER RESOURCES 16
5. IMPACT ANALYSES AND MITIGATION MEASURES 17
5.1. IMPACT SIGNIFICANCE CRITERIA 17
5.2. IMPACT ANALYSIS 17
5.2.1. Potential Direct / Indirect Adverse Effects Upon Special-status Species 17
5.2.2. Potential Direct / Indirect Adverse Effects Upon Special-status Habitats or Natural Communities or Corridors 18
5.2.3. Potential Direct / Indirect Adverse Effects on Jurisdictional Water Resources 19
5.2.4. Potential Impacts to Wildlife Movement, Corridors, etc. 20
5.2.5. Potential Conflicts with Ordinances, Habitat Conservation Plans, etc. 20
6. REFERENCES 21
EXHIBITS ..... A
APPENDIX 1: USFWS SPECIES LIST ..... B
APPENDIX 2: CHECKLIST OF PLANTS DETECTED IN THE STUDY AREA C
APPENDIX 3: SITE PHOTOS ..... D

1. INTRODUCTION

1.1. PROJECT LOCATION AND DESCRIPTION

Natural Investigations Company conducted a biological resources assessment for proposed developments on a 117.59-acre parcel (APN 095-030-036-000) at 5600 Omo Ranch Road, Somerset, in El Dorado County, California.

The proposed cannabis cultivation operation consists of one cultivation compound capable of producing 9,600 square feet of mature plant canopy and 17,640 square feet of nursery/immature plant canopy. All plants will be grown fabric pots or raised beds within greenhouses utilizing mixed light. The cannabis project footprint will be just under 1 acre in size. The project will require some vegetation clearing, grading, and terracing for the establishment of the cultivation area (see exhibits). Ancillary facilities consist of two 1,200 square foot sheds for harvest storage, pesticide and agricultural chemical storage, a 625 square foot compost area and a 1,200 square foot parking area. Existing unpaved private roads will be used access the cultivation operational areas.

Various non-cannabis projects will also be established on this parcel, including 2 residences, an orchard, a food garden, and a vineyard. Development of these projects and the cannabis operation will require clearing of approximately 8 acres of timberland (see exhibits).

For this assessment, the Project Area was defined as the cannabis cultivation area plus the ancillary facilities and the non-cannabis areas to be cleared of timber, and this 8-acre area was the subject of the impact analysis. The entire 118-acre property was defined as the Study Area. The Study Area is defined to identify biological resources adjacent to the Project Area, and is the area subject to potential indirect effects from Project implementation.

1.2. SCOPE OF ASSESSMENT

This assessment provides information about the biological resources within the Study Area, the regulatory environment affecting such resources, any potential Project-related impacts upon these resources, and finally, to identify mitigation measures and other recommendations to reduce the significance of these impacts. The specific scope of services performed for this assessment consisted of the following tasks:

- Compile all readily-available historical biological resource information about the Study Area;
- Spatially query state and federal databases for any occurrences of special-status species or habitats within the Study Area and vicinity;
- Perform a reconnaissance-level field survey of the Study Area, including photographic documentation;
- Inventory all flora and fauna observed during the field survey;
- Characterize and map the habitat types present within the Study Area, including any potentially-jurisdictional water resources;
- Evaluate the likelihood for the occurrence of any special-status species;
- Assess the potential for the Project to adversely impact any sensitive biological resources;
- Recommend mitigation measures designed to avoid or minimize Project-related impacts; and
- Prepare and submit a report summarizing all of the above tasks.

The scope of services does not include other services that are not described in this Section, such as formal aquatic resource delineations or protocol-level surveys for special-status species.

1.3. REGULATORY SETTING

The following section summarizes some applicable regulations of biological resources on real property in California.

1.3.1. Special-status Species Regulations

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service implement the Federal Endangered Species Act of 1973 (FESA) (16 USC §1531 et seq.). Threatened and endangered species on the federal list (50 CFR §17.11, 17.12) are protected from "take" (direct or indirect harm), unless a FESA Section 10 Permit is granted or a FESA Section 7 Biological Opinion with incidental take provisions is rendered. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the project area and determine whether the proposed project will have a potentially significant impact upon such species. Under FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC §1536[3], [4]). Therefore, project-related impacts to these species or their habitats would be considered significant and would require mitigation. Species that are candidates for listing are not protected under FESA; however, USFWS advises that a candidate species could be elevated to listed status at any time, and therefore, applicants should regard these species with special consideration.

The California Endangered Species Act of 1970 (CESA) (California Fish and Game Code §2050 *et seq*., and CCR Title 14, §670.2, 670.51) prohibits "take" (defined as hunt, pursue, catch, capture, or kill) of species listed under CESA. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Section 2081 establishes an incidental take permit program for state-listed species. Under CESA, California Department of Fish and Wildlife (CDFW) has the responsibility for maintaining a list of threatened and endangered species designated under state law (CFG Code 2070). CDFW also maintains lists of species of special concern, which serve as "watch lists." Pursuant to requirements of CESA, an agency reviewing proposed projects within its jurisdiction must determine whether any state-listed species may be present in the Study Area and determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation.

California Fish and Game Code Sections 4700, 5050, and 5515 designates certain mammal, amphibian, and reptile species "fully protected", making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. The California Native Plant Protection Act of 1977 (CFG Code §1900 *et seq*.) requires CDFW to establish criteria for determining if a species or variety of native plant is endangered or rare. Section 19131 of the code requires that landowners notify CDFW at least 10 days prior to initiating activities that will destroy a listed plant to allow the salvage of plant material.

Many bird species, especially those that are breeding, migratory, or of limited distribution, are protected under federal and state regulations. Under the Migratory Bird Treaty Act of 1918 (16 USC §703-711), migratory bird species and their nests and eggs that are on the federal list (50 CFR §10.13) are protected from injury or death, and project-related disturbances must be reduced or eliminated during the nesting cycle. California Fish and Game Code (§3503, 3503.5, and 3800) prohibits the possession, incidental take, or needless destruction of any bird nests or eggs. Fish and Game Code §3511 designates certain bird species "fully protected", making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. The Bald and Golden Eagle Protection Act (16 USC §668) specifically protects bald and golden eagles from harm or trade in parts of these species.

California Environmental Quality Act (CEQA) (Public Resources Code §15380) defines "rare" in a broader sense than the definitions of threatened, endangered, or fully protected. Under the CEQA definition, CDFW can request additional consideration of species not otherwise protected. CEQA requires that the impacts of a project upon environmental resources must be analyzed and assessed using criteria determined by the lead agency. Sensitive species that would qualify for listing but are not currently listed may be afforded protection under CEQA. The CEQA Guidelines (§15065) require that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines (§15380) provide for assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Plant species on the California Native Plant Society (CNPS) Lists 1A, 1B, or 2 are typically considered rare under CEQA. California "Species of Special Concern" is a category conferred by CDFW on those species that are indicators of regional habitat changes or are considered potential future protected species. While they do not have statutory protection, Species of Special Concern are typically considered rare under CEQA and thereby warrant specific protection measures.

1.3.2. Water Resource Protection

Real property that contains water resources are subject to various federal and state regulations and activities occurring in these water resources may require permits, licenses, variances, or similar authorization from federal, state and local agencies, as described next.

The Federal Water Pollution Control Act Amendments of 1972 (as amended), commonly known as the Clean Water Act (CWA), established the basic structure for regulating discharges of pollutants into "waters of the United States". Waters of the US includes essentially all surface waters, all interstate waters and their tributaries, all impoundments of these waters, and all wetlands adjacent to these waters. CWA Section 404 requires approval prior to dredging or discharging fill material into any waters of the US, especially wetlands. The permitting program is designed to minimize impacts to waters of the US, and when impacts cannot be avoided, requires compensatory mitigation. The US Army Corps of Engineers (USACE) is responsible for administering Section 404 regulations. Substantial impacts to jurisdictional wetlands may require an Individual Permit. Small-scale projects may require only a Nationwide Permit, which typically has an expedited process compared to the Individual Permit process. Mitigation of wetland impacts is required as a condition of the CWA Section 404 Permit and may include on-site preservation, restoration, or enhancement and/or off-site restoration or enhancement. The characteristics of the restored or enhanced wetlands must be equal to or better than those of the affected wetlands to achieve no net loss of wetlands.

Under CWA Section 401, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification that the proposed activity will comply with State water quality standards. The California State Water Resources Control Board is responsible for administering CWA Section 401 regulations.

Section 10 of the Rivers and Harbors Act of 1899 requires approval from USACE prior to the commencement of any work in or over navigable Waters of the US, or which affects the course, location, condition or capacity of such waters. Navigable waters of the United States are defined as waters that have been used in the past, are now used, or are susceptible to use, as a means to transport interstate or foreign commerce up to the head of navigation. Rivers and Harbors Act Section 10 permits are required for construction activities in these waters.

California Fish and Game Code (§1601 - 1607) protects fishery resources by regulating "*any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake*." CDFW requires notification prior to commencement, and issuance of a Lake or Streambed Alteration Agreement, if a proposed project will result in the alteration or degradation of ''waters of the State." The limit of CDFW jurisdiction is subject to the judgment of the Department;

currently, this jurisdiction is interpreted to be the "stream zone," defined as "*that portion of the stream channel that restricts lateral movement of water*" and delineated at "*the top of the bank or the outer edge of any riparian vegetation, whichever is more landward*". CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and the applicant is the Streambed Alteration Agreement. Projects that require a Streambed Alteration Agreement may also require a CWA 404 Section Permit and/or CWA Section 401 Water Quality Certification.

For construction projects that disturb one or more acres of soil, the landowner or developer must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ).

The State Water Resources Control Board's Order WQ 2019-0001-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities protects receiving water bodies from water-quality impacts associated with cannabis cultivation using a combination of Best Management Practices, buffer zones, sediment and erosion controls, site management plans, inspections and reporting, and regulatory oversight.

1.3.3. Tree Protection

At the State level, in areas inside timberland, any tree removal is subject to the conditions and requirements set forth in the Z'berg-Nejedly Forest Practice Act and the California Forest Practice Rules. If development of a project will result in the removal of commercial tree species, one of the following permits is needed: Less than 3 Acre Conversion Exemption; Christmas Tree; Dead, Dying or Diseased, Fuelwood, or Split Products Exemption; a Public Agency, Public and Private Utility Right of Way Exemption; a Notice of Exemption from Timberland Conversion Permit for Subdivision; or an Application for Timberland Conversion Permit.

The County of El Dorado (County) has adopted the Oak Resources Conservation Ordinance Number 5061. The Oak Conservation Ordinance requires the inventory of oak resources and the mitigation for the removal of oak resources. Oak Resources consist of oak woodlands, individual native oak trees, and heritage trees. If Oak Resources are to be removed, an Oak Tree or Oak Woodland Removal Permit is required. This requires preparation of an Oak Resources Technical Report and a code compliance certificate verifying that no protected oak trees have been impacted within two years prior to the permit application.

2. ENVIRONMENTAL SETTING

The Study Area is located within the northern Sierra Nevada Foothills geographic subregion, which is contained within the Sierra Nevada Mountains geographic subdivision of the larger California Floristic Province (Baldwin et al. 2012). This region has a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and wet, moderately-cold winters. The Study Area and vicinity is in Climate Zone 7 - California's Gray Pine Belt, defined by hot summers and mild but pronounced winters without severe winter cold or high humidity (Sunset, 2021). The topography of the Study Area is mountainous with ridgelines and moderate hillslopes. The elevation ranges from approximately 3,120 feet to 3,455 feet above mean sea level. The southern half of the parcel drains west into Brownsville Creek, thence Cedar Creek. The northern half is drained by Cedar Creek which flows west into Scott Creek, eventually flowing into the Cosumnes River. Prior to the establishment of this cultivation operation, land uses were open space and timber production. The surrounding land uses are private estates, open space, and timber production.

3. METHODOLOGY

3.1. PRELIMINARY DATA GATHERING AND RESEARCH

Prior to conducting the field survey, the following information sources were reviewed:

- Any readily-available previous biological resource studies pertaining to the Study Area or vicinity
- Aerial photography of the Study Area (current and historical)
- United States Geologic Service 7.5 degree-minute topographic quadrangles of the Study Area and vicinity
- USFWS National Wetland Inventory
- USDA Natural Resources Conservation Service soil survey maps
- California Natural Diversity Database (CNDDB), electronically updated monthly by subscription
- USFWS species list (IPaC Trust Resources Report).

3.2. FIELD SURVEY

Consulting biologist Tim Nosal, MS. conducted a wildlife survey and botanical field survey on October 27, 2021. Weather conditions were cool and sunny. A variable-intensity pedestrian survey was performed, and modified to account for differences in terrain, vegetation density, and visibility. All visible fauna and flora observed were recorded in a field notebook, and identified to the lowest possible taxon. Survey efforts emphasized the search for any special-status species that had documented occurrences in the CNDDB within the vicinity of the Study Area and those species on the USFWS species list (Appendix 1).

When a specimen could not be identified in the field, a photograph or voucher specimen (depending upon permit requirements) was taken and identified in the laboratory using a dissecting scope where necessary. Dr. Graening holds the following scientific collection permits: CDFW Scientific Collecting Permit No. SC-006802; and CDFW Plant Voucher Specimen Permit 09004. Tim Nosal holds CDFW Plant Voucher Specimen Permit 2081(a)-16-102-V. Taxonomic determinations were facilitated by referencing museum specimens or by various texts, including the following: Powell and Hogue (1979); Pavlik (1991); (1993); Brenzel (2012); Stuart and Sawyer (2001); Lanner (2002); Sibley (2003); Baldwin et al. (2012); Calflora (2021); CDFW (2021b,c); NatureServe 2021; and University of California at Berkeley (2021a,b).

The locations of any special-status species sighted were marked on aerial photographs and/or georeferenced with a geographic positioning system (GPS) receiver. Habitat types occurring in the Study Area were mapped on aerial photographs, and information on habitat conditions and the suitability of the habitats to support special-status species was also recorded. The Study Area was also informally

assessed for the presence of potentially-jurisdictional water features, including riparian zones, isolated wetlands and vernal pools, and other biologically-sensitive aquatic habitats

3.3. MAPPING AND OTHER ANALYSES

Locations of species' occurrences and habitat boundaries within the Study Area were digitized to produce the final habitat maps. The boundaries of potentially jurisdictional water resources within the Study Area were identified and measured in the field, and similarly digitized to calculate acreage and to produce informal delineation maps. Geographic analyses were performed using geographical information system software (ArcGIS 10, ESRI, Inc.). Vegetation communities (assemblages of plant species growing in an area of similar biological and environmental factors), were classified by Vegetation Series (distinctive associations of plants, described by dominant species and particular environmental setting) using the CNPS Vegetation Classification system (Sawyer and Keeler-Wolf, 1995). Informal wetland delineation methods consisted of an abbreviated, visual assessment of the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the US Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Wildlife habitats were classified according to the CDFW's California Wildlife Habitat Relationships System (CDFW, 2021c). Species' habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); CNPS (2021), Calflora (2021); CDFW (2021a,b,c); and University of California at Berkeley (2021a,b).

4. RESULTS

4.1. INVENTORY OF FLORA AND FAUNA FROM FIELD SURVEY

All plants detected during the field survey of the Study Area are listed in Appendix 2. The following animals were detected within the Study Area during the field survey:

northwestern fence lizard (*Sceloporus occidentalis occidentalis*); American black bear (*Ursus americana*); Botta's pocket gopher (*Thomomys bottae*); California ground squirrel (*Otospermophilus beecheyi*); Columbian black-tailed deer (*Odocoileus hemionus columbianus*); gray fox (*Urocyon cinereoargenteus*); western gray squirrel (*Sciurus griseus*); acorn woodpecker (*Melanerpes formicivorus*); American robin (*Turdus migratorius*); California quail (*Callipepla californica*); common raven (*Corvus corax*); dark-eyed junco (*Junco hyemalis*); northern flicker (*Colaptes auratus*); Nuttall's woodpecker (*Picoides nuttallii*); red breasted nuthatch (*Sitta canadensis*); red-tailed hawk (*Buteo jamaicensis*); sparrow (Emberizidae); spotted towhee (*Pipilo maculatus*); Stellar's jay (*Cyanocitta stelleri*); and other common songbirds.

4.2. VEGETATION COMMUNITIES AND WILDLIFE HABITAT TYPES

4.2.1. Terrestrial Vegetation Communities

The Study Area contains the following terrestrial vegetation communities: chaparral and mixed oak/conifer forest. These vegetation communities are discussed here and are delineated in the Exhibits.

Chaparral: Although chaparral species are common throughout the Study Area, chaparral habitat is found only in the eastern half of the parcel. The dominant species within the chaparral varies based upon soils, aspect and site history. Typical species include wedgeleaf ceanothus (*Ceanothus cuneatus*), deer brush (*Ceanothus integerrimus* var. *macrothyrsus*), and whiteleaf manzanita (*Arctostaphylos viscida* ssp. *viscida*). Other woody species found in the chaparral include ponderosa pine (*Pinus ponderosa*), California black oak (*Quercus kelloggii*) and poison oak (*Toxicodendron diversilobum*). Various grasses and herbs were observed in the understory of the shrub canopy. This vegetation type can be classified as the Holland Type "Buck Brush Chaparral" or as "37.211.00 Wedge Leaf Ceanothus Chaparral" (CDFW 2021e).

Mixed Oak/Conifer Forest and Woodland: Historically, the parcel has been utilized for timber production. Stands of forested habitat within the Study Area vary in age, composition and canopy cover. Ridges and south-facing slopes are characterized by an open canopy of plantation-planted ponderosa pine and California black oak. However, the creeks and north-facing slopes support a maturing, dense canopy of a variety of conifers and hardwoods. In addition to ponderosa pine and black oak, other commonly observed species in the pine forest and woodland include incense cedar (*Calocedrus decurrens*), Douglas fir (*Pseudotsuga menziesii*), sugar pine (*Pinus lambertiana*), white fir (*Abies concolor*), gray pine (*Pinus sabiniana*) and canyon live oak (*Quercus chrysolepis*). The understory is highly variable and includes typical chaparral species as well as Sierran mountain misery (*Chamaebatia foliolosa*). This vegetation can be classified as the Holland Type "Sierran Mixed Conifer Forest" or as "87.015.02 *Pinus ponderosa – Calocedrus decurrens – Quercus kelloggii* Ponderosa pine – Incense Cedar – California Black Oak Forest and Woodland (CDFW 2021e).

4.2.2. Wildlife Habitat Types

Wildlife habitat types were classified using CDFW's Wildlife Habitat Relationship System. The Study Area contains the following wildlife habitat types: Montane Chaparral; Ponderosa Pine and Riverine.

4.2.3. Critical Habitat and Special-status Habitat

No critical habitat for any federally-listed species occurs within the Project Area or the surrounding Study Area. The CNDDB reported no special-status habitats within the Project Area or surrounding Study Area. The CNDDB reported the following special-status habitats in a 10-mile radius outside of the Study Area: Sacramento-San Joaquin Foothill/Valley Ephemeral Stream; Central Valley Drainage Spring Stream; Central Valley Drainage Resident Rainbow Trout Stream; Central Valley Drainage Hardhead/Squawfish Stream. No special-status habitats were detected within the Project Area during the field survey. However, the surrounding Study Area contains the following special-status habitats: watercourses and riverine wetlands.

4.2.4. Habitat Plans and Wildlife Corridors

Wildlife movement corridors link remaining areas of functional wildlife habitat that are separated primarily by human disturbance, but natural barriers such as rugged terrain and abrupt changes in vegetation cover are also possible. Wilderness and open lands have been fragmented by urbanization, which can disrupt migratory species and separate interbreeding populations. Corridors allow migratory movements and act as links between these separated populations.

No fishery resources exist in or near the Study Area; the nearest is the upper Cosumnes River several miles downstream. The Study Area is mapped as a wildlife corridor: Natural Landscape Blocks and Essential Connectivity Areas – as identified in the California Essential Habitat Connectivity Project (CDFW 2021d). The Study Area is not located within any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

4.3. LISTED SPECIES AND OTHER SPECIAL-STATUS SPECIES

For the purposes of this assessment, "special status" is defined to be species that are of management concern to state or federal natural resource agencies, and include those species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under the Federal Endangered Species Act;
- Listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act of 1970;
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as a species of special concern by CDFW;
- Plants considered to be rare, threatened or endangered in California by the California Native Plant Society (CNPS); this consists of species on Lists 1A, 1B, and 2 of the CNPS Ranking System; or
- Plants listed as rare under the California Native Plant Protection Act.

4.3.1. Reported Occurrences of Listed Species and Other Special-status Species

A list of special-status plant and animal species that have occurred within the Study Area and vicinity was compiled based upon the following:

- Any previous and readily-available biological resource studies pertaining to the Study Area;
- Informal consultation with USFWS by generating an electronic Species List (Information for Planning and Conservation website at https://ecos.fws.gov/ipac/); and
- A spatial query of the CNDDB
- A query of the California Native Plant Society's database *Inventory of Rare and Endangered Plants of California* (online edition).

The CNDDB was queried and any reported occurrences of special-status species were plotted in relation to the Study Area boundary using GIS software (see exhibits).

The CNDDB has mapped an occurrence of great gray owl *(Strix nebulosa)* within the Study Area. However, this occurrence is an artifact of the mapping process at CNDDB. The actual location of this occurrence has been obscured by the CNDDB in order to protect the nest for this species. The exact location of these occurrences is not known, however suitable habitat for these species may be found within the Study Area.

Within a 10-mile buffer of the Study Area boundary, the CNDDB reported several special-status species occurrences, summarized in the following table along with any additional CNPS species.

A USFWS species list was generated online using the USFWS' IPaC Trust Resource Report System (see Appendix 1). The following species list is generated using a regional and/or watershed approach and does not necessarily indicate that the Study Area provides suitable habitat:

- California Red-legged Frog (*Rana draytonii*) Threatened
- Delta Smelt (*Hypomesus transpacificus*) Threatened
- Monarch Butterfly (*Danaus plexippus*) Candidate

Migratory birds should also be considered in the impact assessment.

Special-status Species Reported by CNDDB and CNPS in the Vicinity of the Study Area

Common Name Scientific Name	Status*	General Habitat**	Microhabitat**	Potential to Occur in Project Area***
Southern long-toed salamander Ambystoma macrodactylum sigillatum	CSSC		Aquatic larvae occur in ponds and lakes. Outside of breeding season adults are terrestrial and associated with underground burrows of mammals and moist areas under logs and rocks.	Absent: No habitat onsite.
California red-legged frog Rana draytonii	FT/CSSC	Aquatic; Artificial flowing waters; Artificial standing waters; Freshwater marsh; Marsh & swamp; Riparian forest; Riparian scrub; Riparian woodland; South coast flowing waters; South coast standing waters; Sacramento/San Joaquin flowing waters; Sacrament	Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Absent: No habitat onsite.
Sierra Nevada yellow-legged frog Rana sierrae	FE/CT/WL	Aquatic	Always encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.	Absent: No habitat onsite.
Sharp-shinned hawk Accipiter striatus	WL	Cismontane woodland; Lower montane coniferous forest; Riparian forest; Riparian woodland	North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.	Potential to occur: Suitable habitat present.
Northern goshawk Accipiter gentilis	CSSC	North coast coniferous forest; Subalpine coniferous forest; Upper montane coniferous forest	Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Low potential to occur: Marginal habitat is present.
Great gray owl Strix nebulosa	CE	Lower montane coniferous forest; Old-growth; Subalpine coniferous forest; Upper montane coniferous forest	Requires large diameter snags in a forest with high canopy closure, which provide a cool sub-canopy microclimate.	The CNDDB has mapped an occurrence of this species within the Study Area. The actual location of this occurrence has been obscured by the CNDDB in order to protect the nest for this species. Low potential to occur: Marginal habitat is present.
Bank swallow Riparia riparia	CT	Riparian scrub; Riparian woodland	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Absent: No habitat onsite.
Fringed myotis Myotis thysanodes	CSSC		Uses caves, mines, buildings or crevices for maternity colonies and roosts.	Absent: No habitat onsite.
Long-legged myotis Myotis volans	CSSC	Upper montane coniferous forest	Nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.	Potential to occur: Suitable habitat present.
Silver-haired bat Lasionycteris noctivagans	CSSC	Lower montane coniferous forest; Old-growth; Riparian forest	Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	Potential to occur: Suitable habitat present.

Hoary bat Lasiurus cinereus	CSSC	Broadleaved upland forest; Cismontane woodland; Lower montane coniferous forest; North coast coniferous forest	Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Potential to occur: Suitable habitat present.
Townsend's big-eared bat Corynorhinus townsendii	CSSC	Broadleaved upland forest; Chaparral; Chenopod scrub; Great Basin grassland; Great Basin scrub; Joshua tree woodland; Lower montane coniferous forest; Mojavean desert scrub; Meadow & seep; Riparian forest; Riparian woodland; Sonoran desert scrub; Sonoran	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Absent: No habitat onsite.
North American porcupine Erethizon dorsatum	CSSC	Broadleaved upland forest; Closed-cone coniferous forest; Cismontane woodland; Lower montane coniferous forest; North coast coniferous forest; Upper montane coniferous forest	Wide variety of coniferous and mixed woodland habitat.	Potential to occur: Suitable habitat present.
Sierra Nevada red fox Vulpes vulpes necator	FPE/CT	Alpine dwarf scrub; Alpine; Broadleaved upland forest; Meadow & seep; Riparian scrub; Subalpine coniferous forest; Upper montane coniferous forest; Wetland	Use dense vegetation and rocky areas for cover and den sites. Prefer forests interspersed with meadows or alpine fell-fields.	Absent: No habitat onsite.
Fisher Pekania pennanti	CSSC	North coast coniferous forest; Old-growth; Riparian forest	Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	Absent: No habitat onsite.
Western pond turtle Emys marmorata	CSSC	Aquatic; Artificial flowing waters; Klamath/North coast flowing waters; Klamath/North coast standing waters; Marsh & swamp; South coast flowing waters; South coast standing waters; Sacramento/San Joaquin flowing waters; Sacramento/San Joaquin standing waters	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Absent: No habitat onsite.
Grady's Cave amphipod Stygobromus gradyi	CSSC	Limestone	Known only from springs and caves in the Mother Lode karst region.	Absent: No habitat onsite.
Graham's Cave amphipod Stygobromus grahami	CSSC	Aquatic	Found only in caves.	Absent: No habitat onsite.
Wawona riffle beetle Atractelmis wawona	CSSC	Aquatic	Strong preference for inhabiting submerged aquatic mosses.	Absent: No habitat onsite.
Cosumnes stripetail Cosumnoperla hypocrena	CSSC	Aquatic	Found in intermittent streams on western slope of central Sierra Nevada foothills in American and Cosumnes River basins.	Absent: No habitat onsite.
Grubbs' cave harvestman Banksula grubbsi	CSSC	Limestone	Species is troglobitic.	Absent: No habitat onsite.
Tuolumne button-celery Eryngium pinnatisectum	1B.2	Cismontane woodland; Lower montane coniferous forest; Vernal pool; Wetland	Volcanic soils; vernal pools and mesic sites within other natural communities. 65-915 m.	Absent: No habitat onsite.
Stebbins' lomatium Lomatium stebbinsii	1B.1	Chaparral; Lower montane coniferous forest	Thin, gravelly volcanic clay in open yellow pine forest. Grows where other vegetation is	Absent: No habitat onsite.

			absent. 1140-2350 m.	
Jepson's dodder Cuscuta jepsonii	1B.2	Broadleaved upland forest; Lower montane coniferous forest; Upper montane coniferous forest	Primary host species are Ceanothus diversifolius and Ceanothus prostratus. 1200-2745 m.	Absent: No habitat onsite.
Nissenan manzanita Arctostaphylos nissenana	1B.2	Closed-cone coniferous forest; Chaparral	Usually on metamorphics, associated w/ other chaparral species. 485-1005 m.	Potential to occur: Suitable habitat present.
Brandegee's clarkia Clarkia biloba ssp. brandegeeae	4.2	Chaparral; Cismontane woodland; Lower montane coniferous forest	Often in roadcuts. 75-915 m.	Potential to occur: Suitable habitat present.
Stanislaus monkeyflower Erythranthe marmorata	1B.1	Cismontane woodland; Lower montane coniferous forest	300-1435 m.	Potential to occur: Suitable habitat present.
Saw-toothed lewisia Lewisia serrata	1B.1	Broadleaved upland forest; Lower montane coniferous forest; Riparian forest	Shaded, north-facing moss-covered, metamorphic rock cliffs. 800-1435 m.	Absent: No habitat onsite.
Parry's horkelia Horkelia parryi	1B.2	Chaparral; Cismontane woodland; Ione formation	Openings in chaparral or woodland; especially known from the Ione Formation in Amador County. 85-1115 m.	Absent: No habitat onsite.
Yellow-lip pansy monkeyflower Diplacus pulchellus	1B.2	Lower montane coniferous forest; Meadow & seep	Vernally wet sites. Soils can be clay, volcanic, or granitic. 670-1950 m.	Absent: No habitat onsite.
Felt-leaved violet Viola tomentosa	4.2	Lower montane coniferous forest; Subalpine coniferous forest; Upper montane coniferous forest	In open, conifer forest in dry, gravelly soils. 1035-2015 m.	Potential to occur: Suitable habitat present.
Three-bracted onion Allium tribracteatum	1B.2	Chaparral; Lower montane coniferous forest; Upper montane coniferous forest	Volcanic slopes and ridges. 880-2835 m.	Absent: No habitat onsite.
Pleasant Valley mariposa-lily Calochortus clavatus var. avius	1B.2	Lower montane coniferous forest	Josephine silt loam and volcanically derived soil; often in rocky areas. 300-1710 m.	Potential to occur: Suitable habitat present.
Red Hills soaproot Chlorogalum grandiflorum	1B.2	Chaparral; Cismontane woodland; Lower montane coniferous forest; Ultramafic	Occurs frequently on serpentine or gabbro, but also on non-ultramafic substrates; often on "historically disturbed" sites. 265-1695 m.	Potential to occur: Suitable habitat present.
Prairie wedge grass Sphenopholis obtusata	2B.2	Cismontane woodland; Meadow & seep; Wetland	Open moist sites, along rivers and springs, alkaline desert seeps. 15-2625 m.	Absent: No habitat onsite.
Scalloped moonwort Botrychium crenulatum	2B.2	Bog & fen; Lower montane coniferous forest; Meadow & seep; Marsh & swamp; Upper montane coniferous forest; Wetland	Moist meadows, freshwater marsh, and near creeks. 1185-3110 m.	Absent: No habitat onsite.

*Definitions of Status Codes: FE = Federally listed as endangered; FT = Federally listed as threatened; FPE = Federally proposed for listing as endangered; FPT = Federally proposed for listing as threatened; FC = Candidate for Federal listing; MB = Migratory Bird Act; CE = California State listed as endangered; CT = California State listed as threatened; CSSC = California species of special concern; CR = California rare species; CFP = California fully protected species; CNPS (California Native Plant Society) List 1A = Plants presumed extinct in California by CNPS; CNPS List 1B = CNPS designated rare or endangered plants in California and elsewhere; and CNPS List 2 = CNPS designated rare or endangered plants in California, but more common elsewhere. Global Ranking: G1 = Critically Imperiled; G2 = Imperiled; G3 = Vulnerable. State Ranking: S1 = Critically Imperiled; S2 = Imperiled; S3 = Vulnerable.

**Copied verbatim from CNDDB, unless otherwise noted.

***Definitions of Occurrence Probability Rankings:

Present: Species was observed during site visit. Or
Present: Species has been previously documented to occur within the Study Area.
Potential to occur: Suitable habitat present.
Low potential to occur: Marginal habitat is present.
Absent: No habitat onsite.

4.3.2. Listed Species or Special-status Species Observed During Field Survey

During the field survey, no special-status species were detected within the Project Area or the surrounding Study Area.

4.3.3. Analyses of Likelihood of Occurrence of Special-status Species

The special-status species identified in Section 4.3.1 were further assessed for their likelihood to occur within the Study Area based upon previously documented occurrences, field surveys, their habitat requirements, and the quality and extent of any suitable habitat within the Study Area. Each species was ranked for its likelihood to occur within the Study Area: a “present” rank was given for a species that was observed in the Study Area during the field visit or is known to occur within the Study Area based upon documented occurrences; a "potential to occur" rank was given for species that were not detected during current field surveys, but essential habitat elements exist within the Study Area; a "low potential to occur" rank was given for species that were not detected during current field surveys, and where habitat elements exist within the Study Area or vicinity, but the quality of that habitat is degraded or of poor quality, and/or where Study Area conditions and land uses deter its use of the Study Area; and an “absent” rank was given for species with no known observations within the Study Area or vicinity, and where no suitable habitat exists within the Study Area. The results of these analyses are summarized in the following table.

The following special-status species were determined to have a potential to occur within the Study Area:

Animals

- Sharp-shinned hawk (Accipiter striatus)
- Long-legged myotis (Myotis volans)
- Silver-haired bat (Lasionycteris noctivagans)
- Hoary bat (Lasiurus cinereus)
- North American porcupine (Erethizon dorsatum)

Plants

- Nissenan manzanita (Arctostaphylos nissenana)
- Brandegee's clarkia (Clarkia biloba ssp. brandegeeae)
- Stanislaus monkeyflower (Erythranthe marmorata)
- Felt-leaved violet (Viola tomentosa)
- Pleasant Valley mariposa-lily (Calochortus clavatus var. avius)
- Red Hills soaproot (Chlorogalum grandiflorum)

The chaparral and forest habitats within the Study Area have potential to harbor special-status plant species because rare plants reported by CNDDB to occur in the region use chaparral and pine forest habitat, especially on metamorphic and volcanic soils. Similar habitats occur in the Project Area and surrounding Study Area. Special-status animals also have a potential to occur in the chaparral and forest habitats.

The CNDDB has mapped an occurrence of great gray owl (*Strix nebulosa*) within the Study Area. The actual location of this occurrence has been obscured by the CNDDB in order to protect the nest for this species. This species has a low potential to occur as only marginal habitat is present; there is a lack of old growth forest in the vicinity.

4.4. POTENTIALLY-JURISDICTIONAL WATER RESOURCES

The USFWS National Wetland Inventory reported no water features within the Project Area, but the Inventory did report the following water features within the Study Area (see Exhibits): two riverine features.

A preliminary assessment for the presence of potentially-jurisdictional water resources within the Study Area was also conducted during the field survey. For purposes of this biological site assessment, non-wetland waters (i.e., channels) were classified using the California Forest Practice Rules. The California Forest Practice Rules define a Class I watercourse as 1) a watercourse providing habitat for fish always or seasonally, and/or 2) providing a domestic water source; a Class II watercourse is 1) a watercourse capable of supporting non-fish aquatic species, or 2) a watercourse within 1,000 feet of a watercourse that seasonally or always has fish present; a Class III watercourse is a watercourse with no aquatic life present and that shows evidence of being capable of transporting sediment to Class I and Class II waters during high water flow conditions.

The field survey determined that the Project Area does not contain any channels or wetlands. The following water features were detected within the larger Study Area during the field survey (see Exhibits):

- two ephemeral channels (Class III watercourses): Cedar Creek and an unnamed tributary of Brownsville Creek

There are no vernal pools or other isolated wetlands in the Study Area.

5. IMPACT ANALYSES AND MITIGATION MEASURES

This section establishes the impact criteria, then analyzes potential Project-related impacts upon the known biological resources within the Study Area, and then suggests mitigation measures to reduce these impacts to a less-than-significant level.

5.1. IMPACT SIGNIFICANCE CRITERIA

The significance of impacts to biological resources depends upon the proximity and quality of vegetation communities and wildlife habitats, the presence or absence of special-status species, and the effectiveness of measures implemented to protect these resources from Project-related impacts. As defined by CEQA, the Project would be considered to have a significant adverse impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special-status species in local or regional plans, policies, or regulations, or by USFWS or CDFW
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by USFWS or CDFW
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- Conflict with any county or municipal policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved governmental habitat conservation plan.

5.2. IMPACT ANALYSIS

The following discussion evaluates the potential for Project-related activities to adversely affect biological resources. The Project boundaries were digitized and then overlaid on the habitat map using GIS to quantify potential impacts. Historical aerial photos were also analyzed for changes in land use.

5.2.1. Potential Direct / Indirect Adverse Effects Upon Special-status Species

- *Will the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The Project Areas are located in chaparral and pine forest habitat, which will be impacted by project implementation. Special-status plants have a potential to occur in these habitats because rare plant species have been reported in similar habitats in the region by the CNDDB. A botanical survey was performed during our site survey. No special-status plants were observed within the Project Area or the surrounding Study Area, but this survey was performed outside of the blooming period of most rare plants occurring in the region. Without an additional botanical survey performed during the blooming period, we cannot be certain that special-status plants will not be impacted by project implementation. This is a potentially significant impact before mitigation.

Several special-status animal species have a potential to occur in Project Areas. No special-status animals were observed within the Project Area or the surrounding Study Area. However, special-status

species could migrate into Project Areas between the time that the field survey was completed and the start of construction. This is a potentially significant impact before mitigation.

Special-status bird species were reported in databases (CNDDB and USFWS) in the vicinity of the Project Area. The Project Area, and adjacent trees, contain suitable nesting habitat for various bird species. However, no active nests were observed during the field survey. If construction activities are conducted during the nesting season, nesting birds could be directly impacted by tree removal and indirectly impacted by noise, vibration, and other construction-related disturbance. Therefore, Project construction is considered a potentially significant adverse impact to nesting birds.

Recommended Mitigation Measures

An additional botanical survey is recommended because our field survey was not performed during the blooming period of most regionally-occurring rare plants. The survey should be focused on rare plants that have been reported in the vicinity by the CNDDB and performed during the blooming period of the majority of target species. The survey should also focus on habitat types that are more likely to harbor rare species. With the implementation of this mitigation measure, adverse impacts upon special-status plant species would be reduced to a less-than-significant level.

Because special-status species that occur in the vicinity could migrate onto the Study Area between the time that the field survey was completed and the start of construction, a pre-construction survey for special-status species should be performed by a qualified biologist to ensure that special-status species are not present. If any listed species are detected, construction should be delayed, and the appropriate wildlife agency (CDFW and/or USFWS) should be consulted and project impacts and mitigation reassessed. With the implementation of this mitigation measure, adverse impacts upon special-status species would be reduced to a less-than-significant level.

If construction activities would occur during the nesting season (typically February through August), a pre-construction survey for the presence of special-status bird species or any nesting bird species should be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified in these areas, CDFW and/or USFWS should be consulted to develop measures to avoid “take” of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. With the implementation of this mitigation measure, adverse impacts upon special-status bird species and nesting birds would be reduced to a less-than-significant level.

5.2.2. Potential Direct / Indirect Adverse Effects Upon Special-status Habitats or Natural Communities or Corridors

- *Will the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The Project Area and surrounding Study Area are not within any designated listed species’ critical habitat. The Study Area contains two channels, which are special-status habitats due to their potential to attract wildlife or harbor rare plants and because these resources are protected by multiple laws. The Project Area does not contain special-status habitats and is setback from the channels such that no direct impacts will occur.

Recommended Mitigation Measures

No mitigation is necessary.

5.2.3. Potential Direct / Indirect Adverse Effects on Jurisdictional Water Resources

- *Will the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

There are several water resources within the surrounding Study Area: two Class III Watercourses. Potential direct impacts to water resources could occur during construction by modification or destruction of stream banks or riparian vegetation or the filling of wetlands or channels. However, there are no water resources within the Project Areas. The cannabis cultivation area is setback at least 400 feet from watercourses and vegetative buffers are present. Because of these avoidance measures, no direct impacts to water resources are expected.

Potential indirect impacts to water resources could occur during construction by increased erosion and sedimentation in receiving water bodies due to soil disturbance. If the total area of ground disturbance from installation of the cultivation operation is 1 acre or more, the Cultivator must enroll for coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ). Implementation of a stormwater pollution prevention plan, and erosion control plan, along with regular inspections, will ensure that construction activities do not pollute receiving waterbodies.

Potential adverse impacts to water resources could occur during operation of cultivation activities resources by discharge of sediment or other pollutants (fertilizers, pesticides, human waste, etc.) into receiving waterbodies. However, the project proponent must file a Notice of Intent and enroll in Cannabis Cultivation Order WQ 2019-0001-DWQ. Compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of Best Management Practices (BMPs), buffer zones, sediment and erosion controls, site management plans, inspections and reporting, and regulatory oversight. Cultivators who enroll in Cannabis General Order must also comply with the Minimum Riparian Setbacks, as summarized in the following table. The Project would be considered to have a significant adverse impact on jurisdictional water resources if it would be non-compliant with these requirements. The minimum riparian setbacks apply to all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, diesel powered pump locations, water storage areas, and chemical toilet placement). The proposed project is compliant with the setback requirements of Cannabis Cultivation Order WQ 2019-0001-DWQ.

Minimum Riparian Setbacks

Common Name	Watercourse Class	Distance
Perennial watercourses, waterbodies (e.g. lakes, ponds), or springs	I	150 ft.
Intermittent watercourses or wetlands	II	100 ft.
Ephemeral watercourses	III	50 ft.
Man-made irrigation canals, water supply reservoirs, or hydroelectric canals that support native aquatic species	IV	Established riparian zone vegetation

Recommended Mitigation Measures

No impacts were identified, and therefore no mitigation measures are proposed.

5.2.4. Potential Impacts to Wildlife Movement, Corridors, etc.

- *Will the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The Study Area is within mapped habitat areas "Essential Connectivity Areas" and "Natural Landscape Blocks" as delineated by the California Essential Habitat Connectivity Project (CDFW 2021d). The open space and the stream corridors in the Study Area facilitate animal movement and migrations. While the Study Area may be used by wildlife for movement or migration, the Project would not have a significant impact on this movement because it would not block movement and the majority of the open space in the Study Area would still be available.

Implementation of the proposed project would necessitate erection of security fences around the cultivation compounds. These fences do not allow animal movement and may act as a local barrier to wildlife movement. However, the fenced cultivation areas are surrounded by open space, allowing wildlife to move around these fenced areas. Thus, implementation of the proposed project is a less than significant impact upon wildlife movement. Implementation of the project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Recommended Mitigation Measures

No mitigation is necessary.

5.2.5. Potential Conflicts with Ordinances, Habitat Conservation Plans, etc.

- *Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- *Will the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

As designed, construction of the project will not require the removal of mature oak trees, but may require the removal of commercial tree protected CALFIRE or the conversion of timberland. This is a potentially significant impact before mitigation.

The project does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved governmental habitat conservation plan. The Study Area is not within the coverage area of any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

Recommended Mitigation Measures

El Dorado County requires mitigation for the removal of native oak species.

If development of the project will result in the removal of commercial tree species, one of the following permits is needed: Less than 3 Acre Conversion Exemption; Christmas Tree; Dead, Dying or Diseased, Fuelwood, or Split Products Exemption; a Public Agency, Public and Private Utility Right of Way Exemption; a Notice of Exemption from Timberland Conversion Permit for Subdivision; or an Application for Timberland Conversion Permit.

6. REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition, thoroughly revised and expanded. University of California Press, Berkeley, California. 1,600 pp.

Calflora. 2021. Calflora, the on-line gateway to information about native and introduced wild plants in California. Internet database available at http://calflora.org/.

California Department of Fish and Wildlife. 2021a. RareFind, California Natural Diversity Data Base. Biogeographic Data Branch, Sacramento, California. (updated monthly by subscription service)

California Department of Fish and Wildlife, 2021b. California's Plants and Animals. Habitat Conservation Planning Branch, California Department of Fish and Wildlife, Sacramento, California. http://www.dfg.ca.gov/hcpb/species/search_species.shtml.

California Department of Fish and Wildlife. 2021c. California's Wildlife. California Wildlife Habitat Relationships System, Biogeographic Data Branch, California Department of Fish and Wildlife. Internet database available at http://www.dfg.ca.gov/whdab/html/cawildlife.html.

California Department of Fish and Wildlife. 2021d. California Essential Connectivity Project., Habitat Conservation Planning Branch, California Department of Fish and Wildlife. Internet database available at https://wildlife.ca.gov/Data/BIOS.

California Department of Fish and Wildlife. 2021e. List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. Vegetation Classification and Mapping Program. Available on the Internet at: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities.

California Native Plant Society. 2021. Inventory of Rare and Endangered Plants. Rare Plant Scientific Advisory Committee, David P. Tibor, convening editor. California Native Plant Society. Sacramento, California. Internet database available at http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi. 92 pp.

Lanner, R. M. 2002. Conifers of California. Cachuma Press, Los Olivos, California. 274 pp.

Natural Resources Conservation Service. 2021. Web Soil Survey. National Cooperative Soil Survey, U.S. Department of Agriculture. NRCS Soils Website (Internet database and digital maps) available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

NatureServe. 2021. NatureServe Explorer: An online encyclopedia of life. NatureServe, Arlington, Virginia. Internet database available at http://www.natureserve.org/explorer.

Pavlik, B. M., P. C. Muick, S. G. Johnson, and M. Popper. 1991. Oaks of California. Cachuma Press and the California Oak Foundation. Los Olivos, California. 184 pp.

Sawyer, J. O., and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, Sacramento, California. Available electronically at http://davisherb.ucdavis.edu/cnpsActiveServer/index.html.

Sibley, D. A. 2003. The Sibley Field Guide to Birds of Western North America. Alfred A. Knopf, Inc., New York, New York.

Stuart, J. D., and J. O. Sawyer. 2001. Trees and Shrubs of California. California Natural History Guides. University of California Press, Berkeley, California. 467 pp.

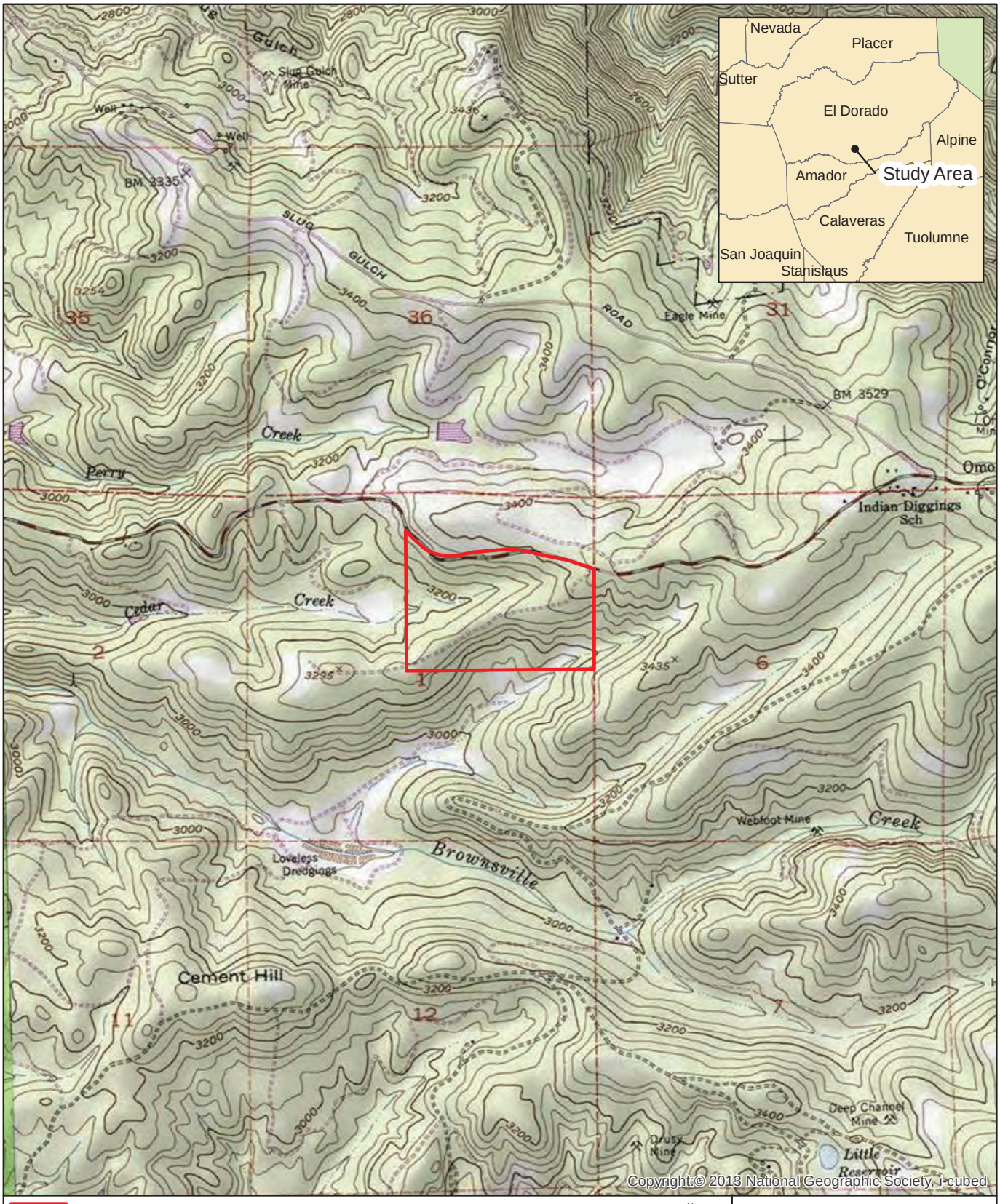
Sunset Western Garden Collection. 2021. Sunset Climate Zones. Sunset Publishing Corporation. Available on the Internet at: https://www.sunsetwesterngardencollection.com/climate-zones.

University of California at Berkeley. 2021a. Jepson Online Interchange for California Floristics. Jepson Flora Project, University Herbarium and Jepson Herbarium, University of California at Berkeley. Internet database available at http://ucjeps.berkeley.edu/interchange.html.

University of California at Berkeley. 2021b. CalPhotos. Biodiversity Sciences Technology Group, University of California at Berkeley. Internet database available at http://calphotos.berkeley.edu/

United States Fish and Wildlife Service. 2021. Wetlands Digital Data. National Wetlands Inventory Center. Digital maps downloaded from the Internet at https://www.fws.gov/wetlands/.

EXHIBITS



Study Area

0 0.25 0.5 Miles

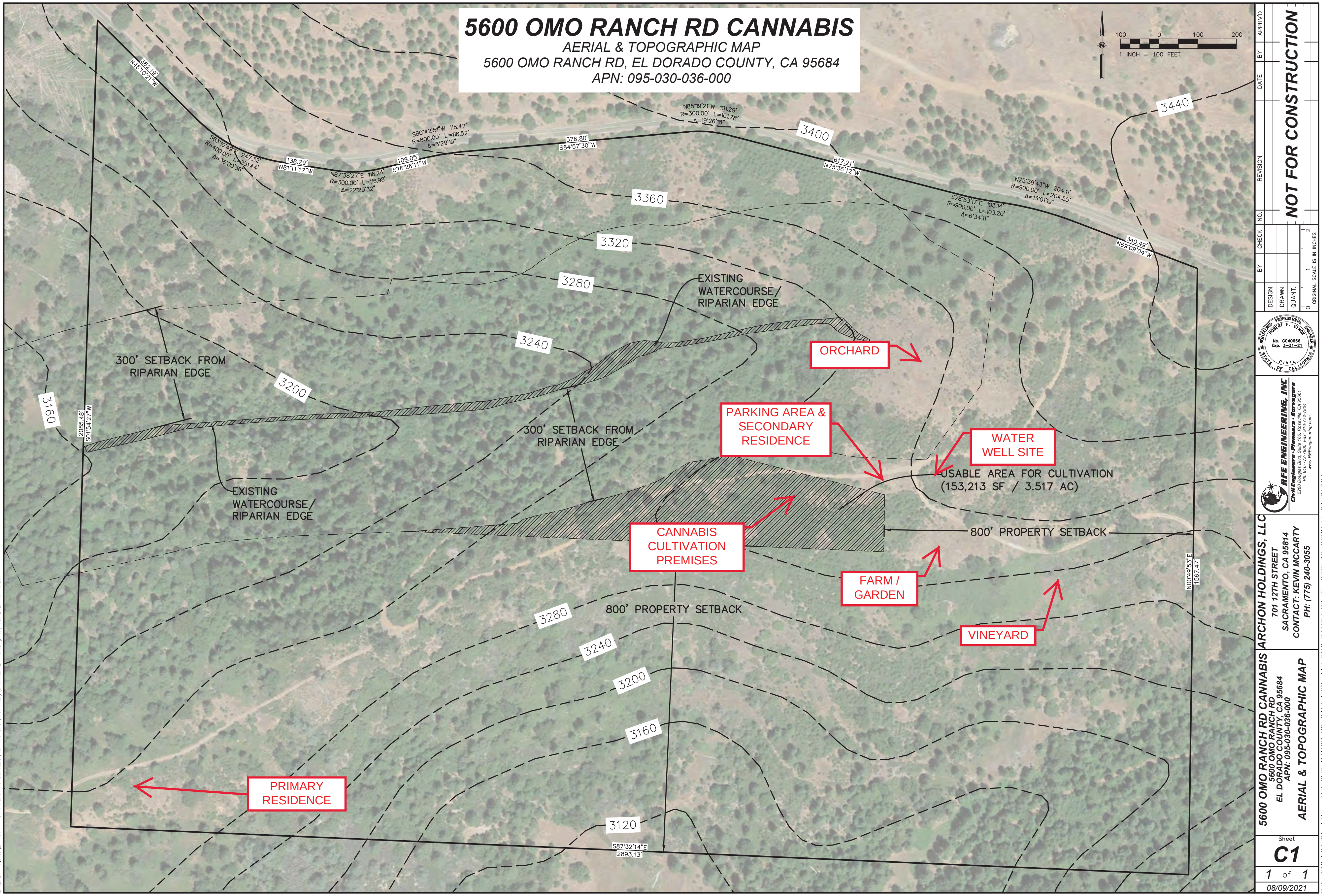
1:24,000

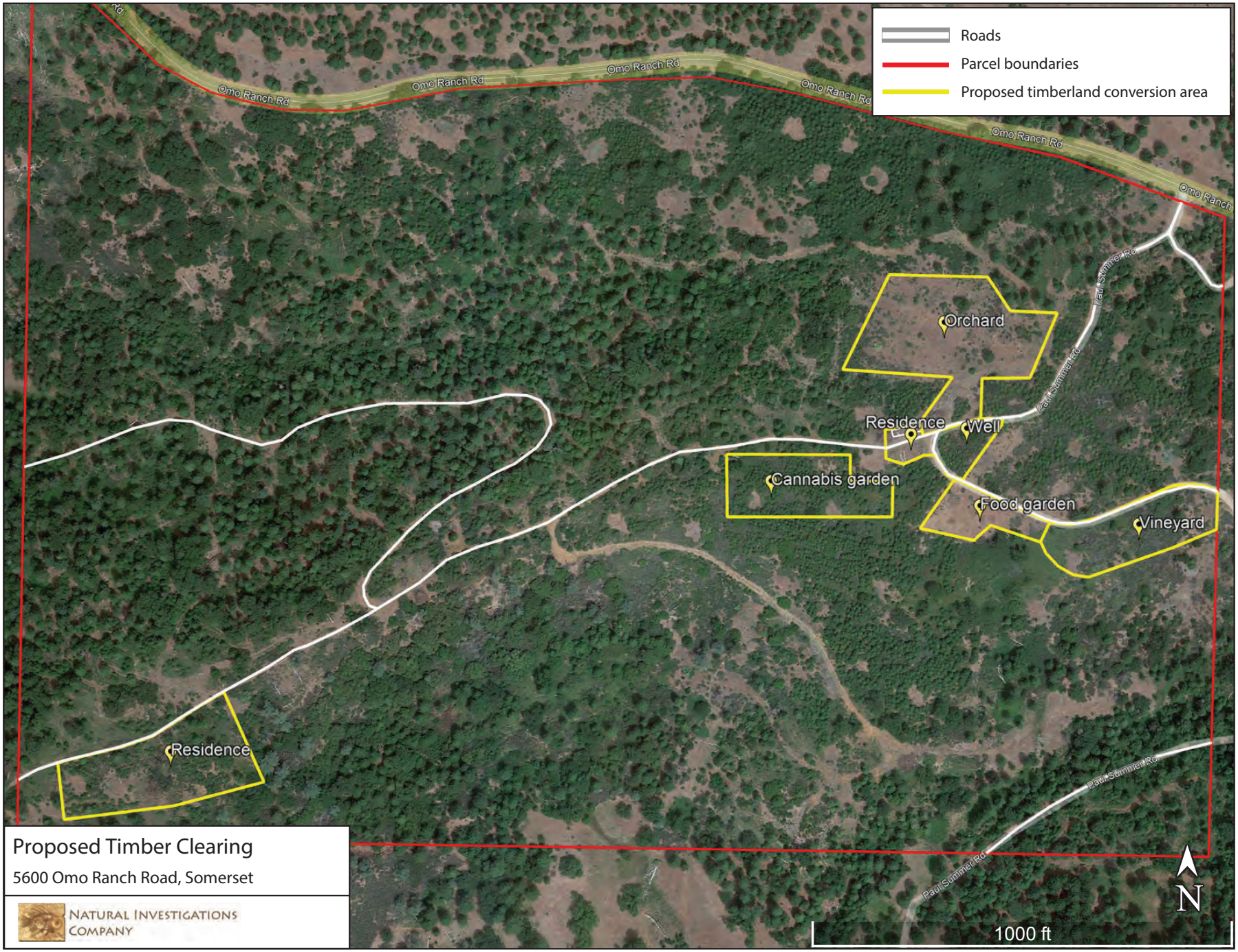
5600 Omo Ranch Road
Study Area Location Map

NATURAL INVESTIGATIONS COMPANY

Map Date 10/25/2021

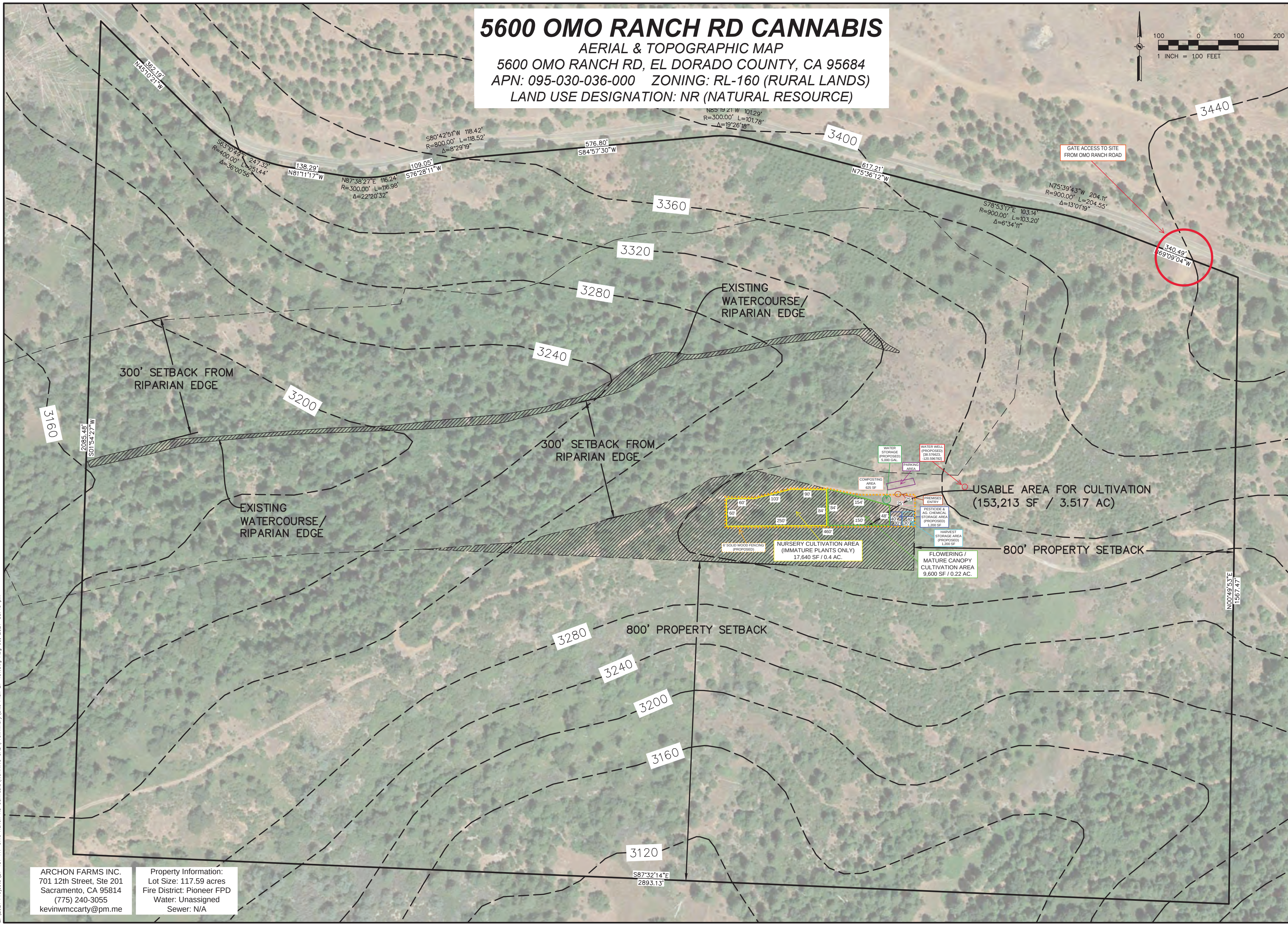
Omo Ranch 1952 Quadrangle Photorevised 1973:Township 8N, Range 12E, Section 1


5600 OMO RANCH RD CANNABIS
AERIAL & TOPOGRAPHIC MAP
5600 OMO RANCH RD, EL DORADO COUNTY, CA 95684
APN: 095-030-036-000
1 INCH = 100 FEET
NOT FOR CONSTRUCTION
EXISTING WATERCOURSE/ RIPARIAN EDGE
300' SETBACK FROM RIPARIAN EDGE
ORCHARD
PARKING AREA & SECONDARY RESIDENCE
WATER WELL SITE
USABLE AREA FOR CULTIVATION (153,213 SF / 3.517 AC)
800' PROPERTY SETBACK
CANNABIS CULTIVATION PREMISES
FARM / GARDEN
VINEYARD
PRIMARY RESIDENCE
3440
3400
3360
3320
3280
3240
3200
3160
3120
617.21' N75°36'12"W
576.80' S84°57'30"W
340.49' N69°09'04"W
2085.48' S01°54'27"W
1567.47' N00°49'53"E
S87°32'14"E 2893.13'
ARCHON HOLDINGS, LLC
701 12TH STREET
SACRAMENTO, CA 95814
CONTACT: KEVIN MCCARTY
PH: (775) 240-3055
RFE ENGINEERING, INC
Civil Engineers • Planners • Surveyors
5600 OMO RANCH RD CANNABIS
5600 OMO RANCH RD
EL DORADO COUNTY, CA 95684
APN: 095-030-036-000
AERIAL & TOPOGRAPHIC MAP
Sheet
C1
1 of 1
08/09/2021


Roads
Parcel boundaries
Proposed timberland conversion area
Omo Ranch Rd
Omo Ranch Rd
Omo Ranch Rd
Omo Ranch Rd
Omo Ranch
Paul Summer Rd
Paul Summer Rd
Paul Summer Rd
Orchard
Residence
Well
Cannabis garden
Food garden
Vineyard
Residence
Proposed Timber Clearing
5600 Omo Ranch Road, Somerset
Natural Investigations Company
N
1000 ft

5600 OMO RANCH RD CANNABIS

AERIAL & TOPOGRAPHIC MAP
5600 OMO RANCH RD, EL DORADO COUNTY, CA 95684
APN: 095-030-036-000 ZONING: RL-160 (RURAL LANDS)
LAND USE DESIGNATION: NR (NATURAL RESOURCE)



ARCHON FARMS INC.
701 12th Street, Ste 201
Sacramento, CA 95814
(775) 240-3055
kevinwmccarty@pm.me

Property Information:
Lot Size: 117.59 acres
Fire District: Pioneer FPD
Water: Unassigned
Sewer: N/A

NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER ROBERT F. EYNCK No. C040666 Exp. 3-31-21 CIVIL STATE OF CALIFORNIA

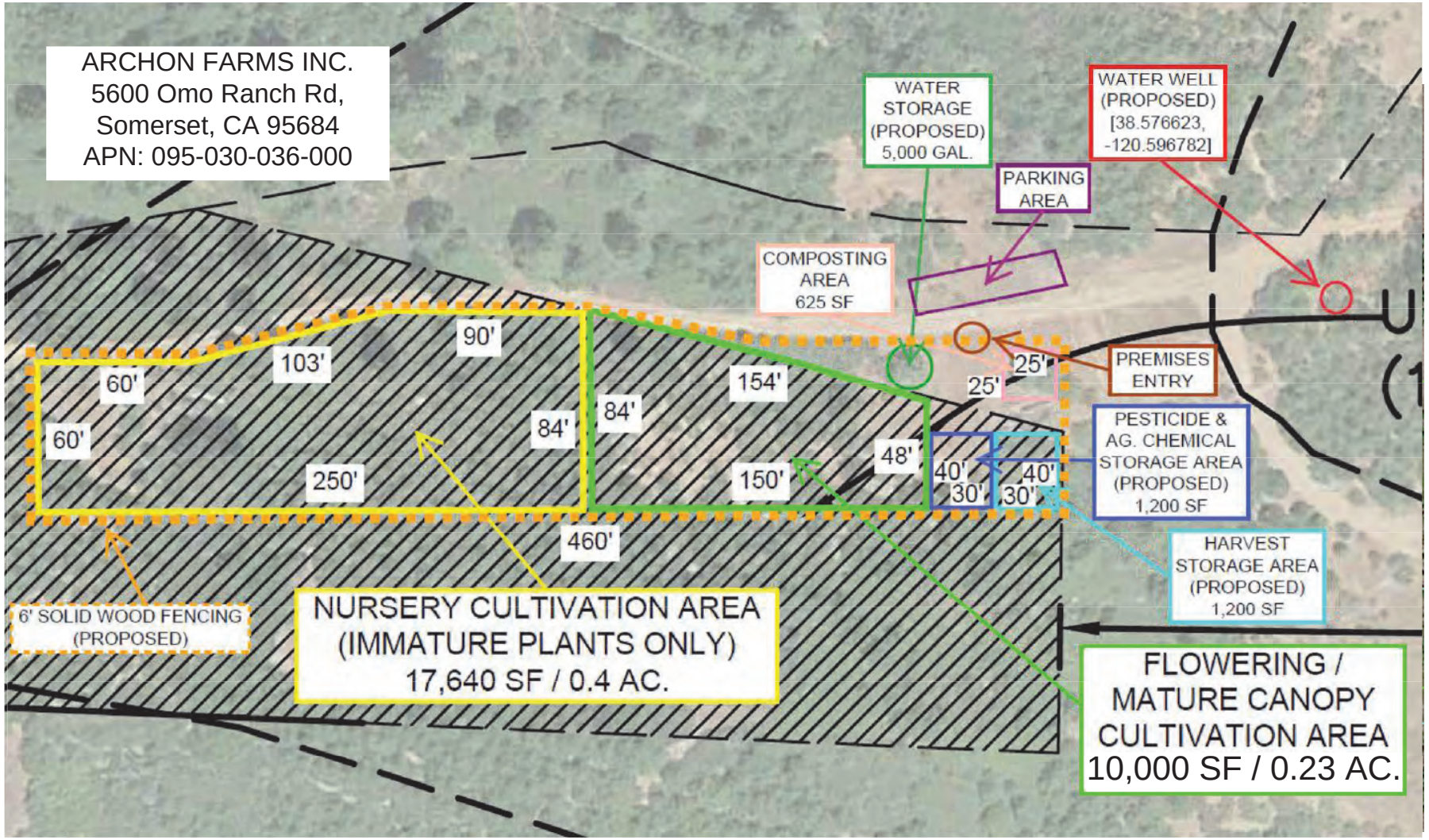
RFE ENGINEERING, INC
Civil Engineers • Planners • Surveyors
2260 Douglas Blvd, Suite 160, Roseville, CA 95661
Ph: 916-772-7800 Fax: 916-772-7804
www.RFEengineering.com

ARCHON FARMS INC.
701 12TH STREET
SACRAMENTO, CA 95814
CONTACT: KEVIN MCCARTY
PH: (775) 240-3055

5600 OMO RANCH RD CANNABIS
5600 OMO RANCH RD
EL DORADO COUNTY, CA 95684
APN: 095-030-036-000
AERIAL & TOPOGRAPHIC MAP

Sheet C1
1 of 1
08/09/2021

RFE PROJECT 21-131 – 117 OMO RANCH RD CANNABIS; 117 OMO RANCH RD, EL DORADO COUNTY, CA 95684



100 0 100 200 FEET

November 7, 2021

Cannabis Cultivation Premises Aerial Zoom Map - 5600 Omo Ranch Rd

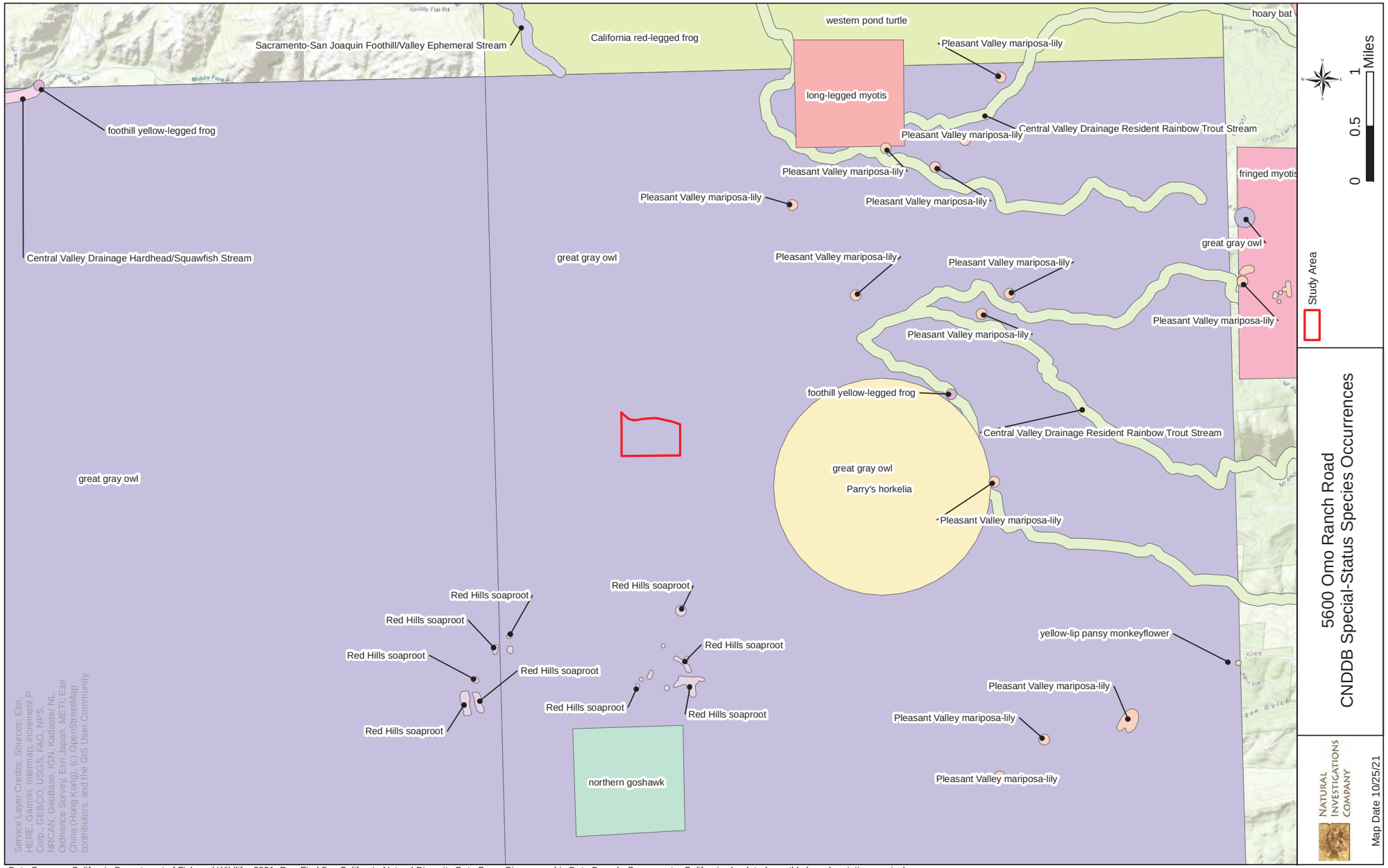
Search Results: Parcels
Override 1
County Outline

Highway Labels
Highways

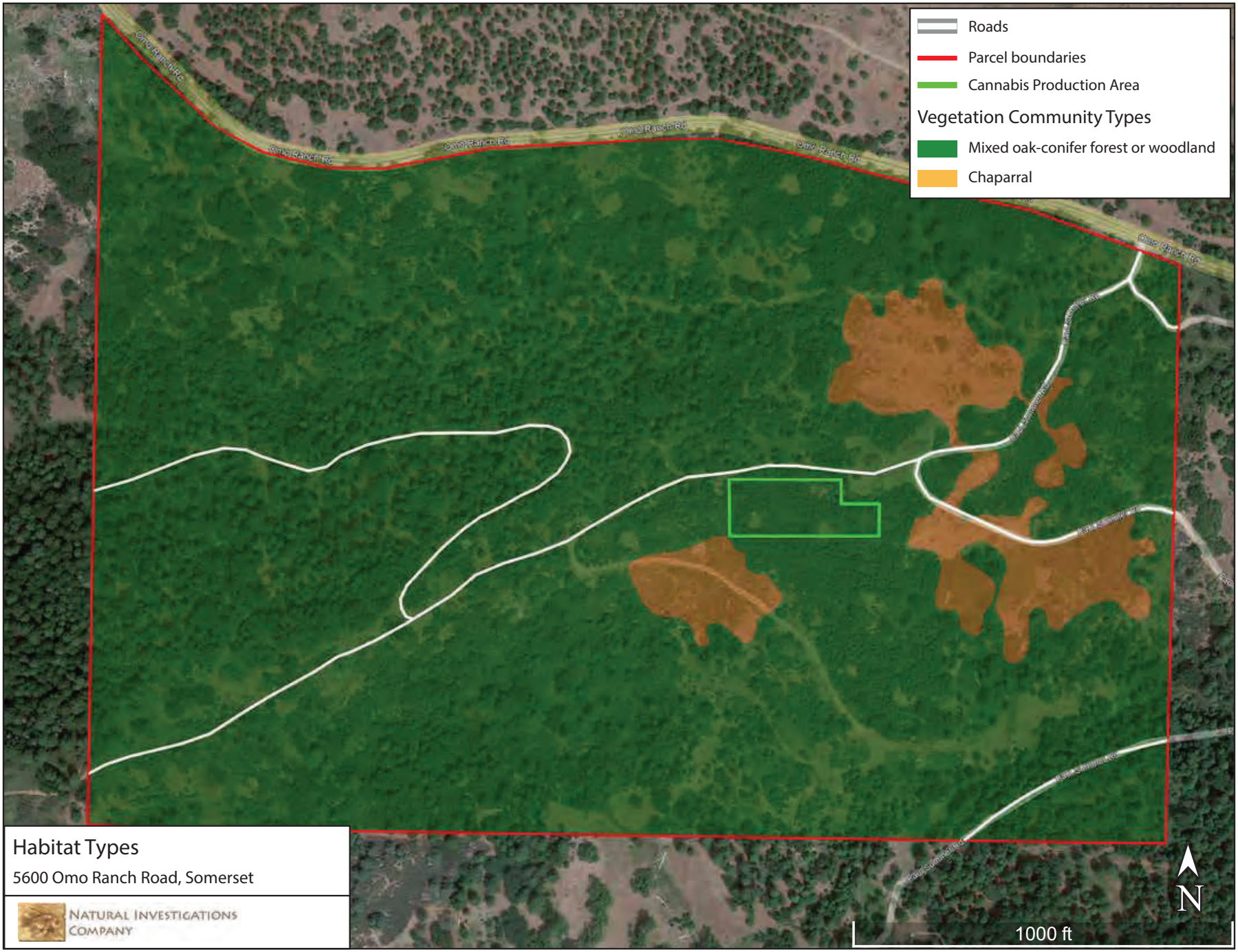
Major Roads
Major Roads
Minor Roads

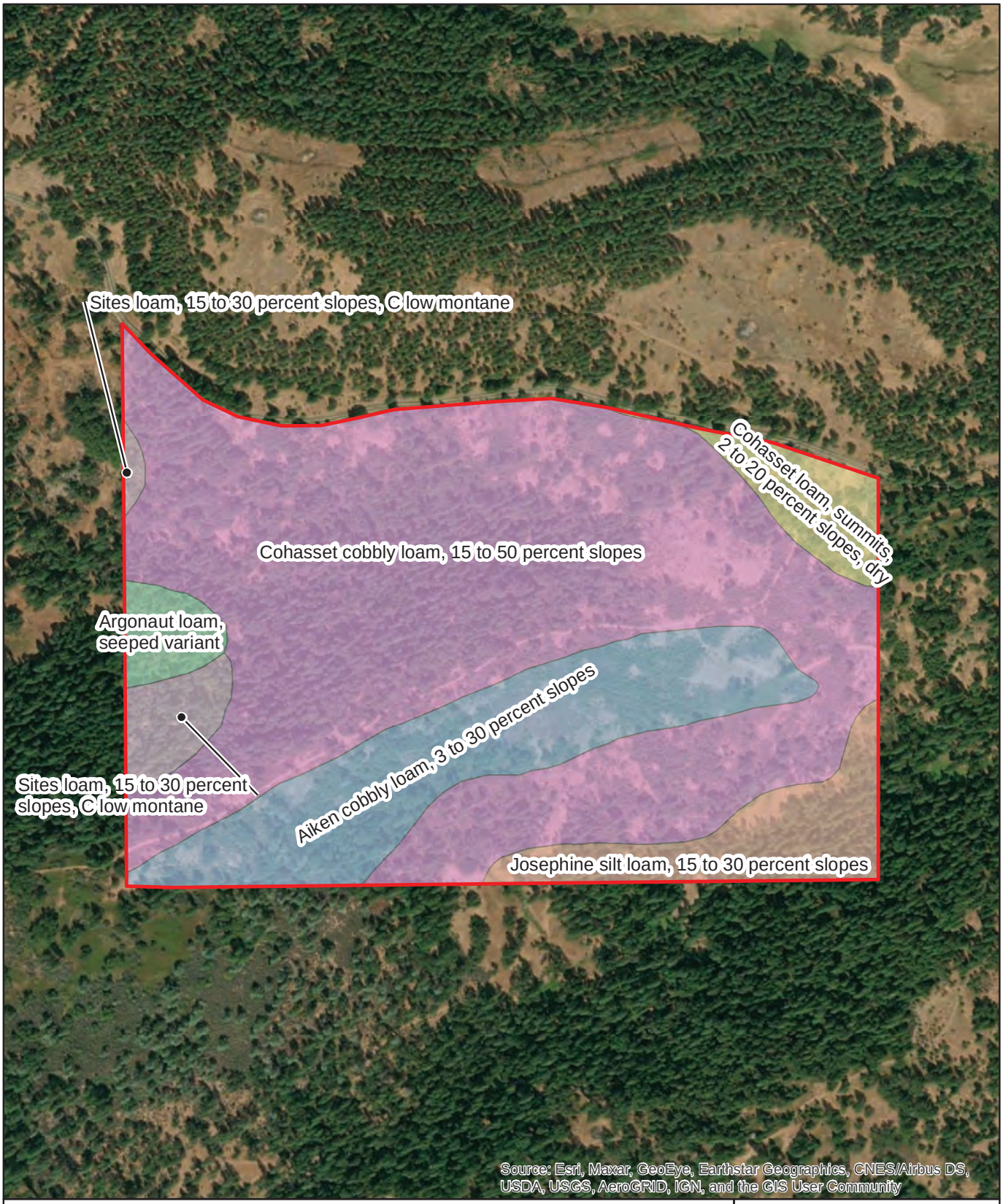
Cities
Parcels
Rivers

Lakes
USGS Section Lines
Soils



Data Sources: California Department of Fish and Wildlife. 2021. RareFind 5.x, California Natural Diversity Data Base. Biogeographic Data Branch, Sacramento, California. (updated monthly by subscription service)


Roads
Parcel boundaries
Cannabis Production Area
Vegetation Community Types
Mixed oak-conifer forest or woodland
Chaparral
Omo Ranch Rd
Habitat Types
5600 Omo Ranch Road, Somerset
Natural Investigations Company
N
1000 ft



Study Area

0 400 800 Feet

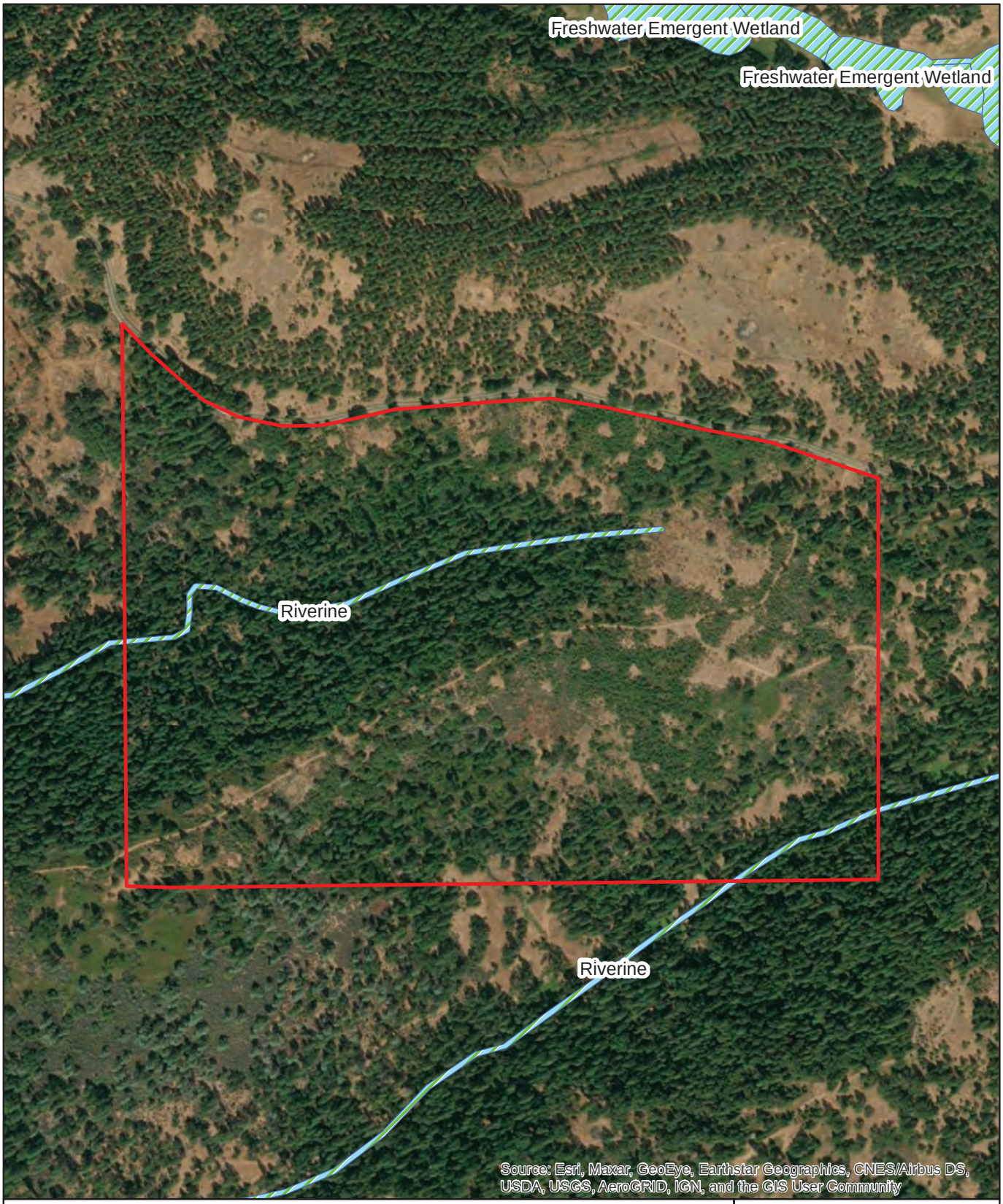
1:6,000

5600 Omo Ranch Road
USDA Soils Map

Natural Investigations Company

Map Date 10/25/2021

Omo Ranch 1952 Quadrangle Photorevised 1973:Township 8N, Range 12E, Section 1



Study Area

Wetlands and Channels

0 400 800 Feet

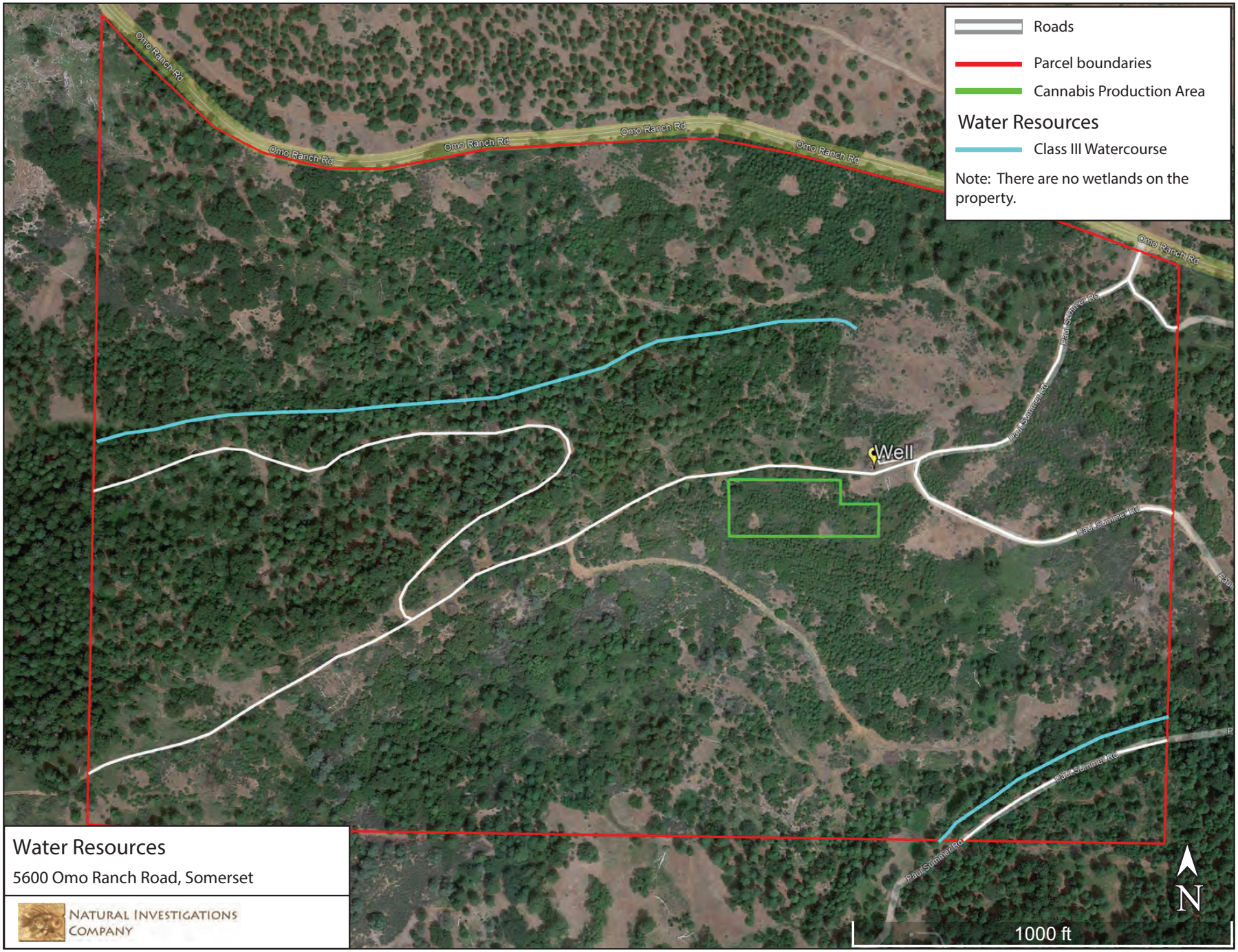
1:6,000

5600 Omo Ranch Road
National Wetlands Inventory
Features Map

Natural Investigations Company

Map Date 10/25/2021

Omo Ranch 1952 Quadrangle Photorevised 1973:Township 8N, Range 12E, Section 1


Roads
Parcel boundaries
Cannabis Production Area
Water Resources
Class III Watercourse
Note: There are no wetlands on the property.
Omo Ranch Rd
Omo Ranch Rd
Omo Ranch Rd
Omo Ranch Rd
Omo Ranch Rd
Paul Sumner Rd
Paul Sumner Rd
Paul Sumner Rd
Paul Sumner Rd
Well
Water Resources
5600 Omo Ranch Road, Somerset
Natural Investigations Company
N
1000 ft

APPENDIX 1: USFWS SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Consultation Code: 08ESMF00-2022-SLI-0238
Event Code: 08ESMF00-2022-E-00690
Project Name: 5600 Omo Ranch Road, Somerset

October 28, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2022-SLI-0238
Event Code: Some(08ESMF00-2022-E-00690)
Project Name: 5600 Omo Ranch Road, Somerset
Project Type: AGRICULTURE
Project Description: Agriculture
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.5775022,-120.6003302,14z

Counties: El Dorado County, California

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX 2: CHECKLIST OF PLANTS DETECTED IN THE STUDY AREA

Appendix 2:
Plants Observed at 5600 Omo Ranch Road, Somerset on October 27, 2021

Common Name	**Scientific Name**
White fir	*Abies concolor*
Yarrow	*Achillea millefolium*
Goatgrass	*Aegilops triuncialis*
Mountain dandelion	*Agoseris sp.*
Bentgrass	*Agrostis sp.*
Whiteleaf manzanita	*Arctostaphylos viscida ssp. viscida*
California mugwort	*Artemisia douglasiana*
Lemmon's wild ginger	*Asarum lemmonii*
Milkweed	*Asclepias sp.*
Lady fern	*Athyrium filix-femina*
Slender wild oat	*Avena barbata*
Brodiaea	*Brodiaea sp.*
Ripgut brome	*Bromus diandrus*
Soft chess	*Bromus hordeaceus*
California brome	*Bromus sitchensis var. carinatus*
Cheat grass	*Bromus tectorum*
Incense cedar	*Calocedrus decurrens*
Morning glory	*Calystegia sp.*
Italian thistle	*Carduus pycnocephalus*
Wedge leaf ceanothus	*Ceanothus cuneatus*
Deerbrush	*Ceanothus integerrimus var. macrothyrsus*
Maltese star thistle	*Centaurea melitensis*
Yellow star thistle	*Centaurea solstitialis*
Sierran mountain misery	*Chamaebatia foliolosa*
Chicory	*Cichorium intybus*
Bull thistle	*Cirsium vulgare*
Clarkia	*Clarkia sp.*
Mountain dogwood	*Cornus nuttallii*
Dove weed	*Croton setiger*
Dogtail grass	*Cynosurus echinatus*
Tall flatsedge	*Cyperus eragrostis*
Sticky cinquefoil	*Drymocallis glandulosa*
Medusa-head grass	*Elymus caput-medusae*
Blue wildrye	*Elymus glaucus*
Tall willowherb	*Epilobium brachycarpum*
Goldenfleece	*Ericameria arborescens*
Yerba santa	*Eriodictyon californicum*
Buckwheat	*Eriogonum sp.*
Wooly sunflower	*Eriophyllum lanatum*
Pacific fescue	*Festuca microstachys*
Rattail sixweeks grass	*Festuca myuros*

Common Name	Scientific Name
Red fescue	*Festuca rubra*
Mexican bedstraw	*Galium mexicanum*
Climbing bedstraw	*Galium porrigens*
Bedstraw	*Galium sp.*
Great Valley gumplant	*Grindelia camporum*
Toyon	*Heteromeles arbutifolia*
White flowered hawkweed	*Hieracium albiflorum*
Klamath weed	*Hypericum perforatum*
Baltic rush	*Juncus balticus*
Common rush	*Juncus effusus*
Keckiella	*Keckiella sp.*
Prickly lettuce	*Lactuca serriola*
Lessingia	*Lessingia sp.*
Pink honeysuckle	*Lonicera hispidula*
Chaparral honeysuckle	*Lonicera interrupta*
Lupine	*Lupinus sp.*
Tarplant	*Madia sp.*
Penstemon	*Penstemon sp.*
Phacelia	*Phacelia sp.*
American mistletoe	*Phoradendron leucarpum*
Sugar pine	*Pinus lambertiana*
Ponderosa pine	*Pinus ponderosa*
Gray pine	*Pinus sabiniana*
Bluegrass	*Poa sp.*
Sierra milkwort	*Polygala cornuta*
California cudweed	*Pseudognaphalium californicum*
Douglas fir	*Pseudotsuga menziesii*
Canyon live oak	*Quercus chrysolepis*
California black oak	*Quercus kelloggii*
Gooseberry	*Ribes sp.*
California rose	*Rosa californica*
Himalayan blackberry	*Rubus armeniacus*
Whitestem raspberry	*Rubus leucodermis*
California blackberry	*Rubus ursinus*
Blue elderberry	*Sambucus nigra ssp. caerulea*
Sanicle	*Sanicula sp.*
Giant sequoia	*Sequoiadendron giganteum*
Sidalcea	*Sidalcea sp.*
Tumble mustard	*Sisymbrium altissimum*
Canada goldenrod	*Solidago elongata*
Needlegrass	*Stipa sp.*
Common snowberry	*Symphoricarpos albus*
Creeping snowberry	*Symphoricarpos mollis*
Tall sock-destroyer	*Torilis arvensis*

Common Name	Scientific Name
Poison-oak	*Toxicodendron diversilobum*
Salsify	*Tragopogon sp.*
Vinegar weed	*Trichostema lanceolatum*
Rose clover	*Trifolium hirtum*
Clover	*Trifolium sp.*
Western vervain	*Verbena lasiostachys*
Vetch	*Vicia sp.*

APPENDIX 3: SITE PHOTOS















Appendix D

North Central Information Center Letter

California Historical Resources Information System

NORTH CENTRAL INFORMATION CENTER

AMADOR
EL DORADO
NEVADA
PLACER
SACRAMENTO
YUBA

California State University, Sacramento
6000 J Street, Folsom Hall, Suite 2042
Sacramento, California 95819-6100
phone: (916) 278-6217
fax: (916) 278-5162
email: ncic@csus.edu

9/29/2021

NCIC File No.: ELD-21-77

Kevin McCarty
Archon Holdings LLC
701 12th Street
Sacramento, CA 95814

Records Search Results for
Cannabis Cultivation Area Within APN: 095-030-036-000 / 117 Omo Ranch Road, El Dorado County, CA 95684

Kevin McCarty:

Per your request received by our office on 9/29/2021, a complete records search was conducted by searching California Historic Resources Information System (CHRIS) maps for cultural resource site records and survey reports in El Dorado County within a 1/4-mile radius of the proposed project area.

Review of this information indicates that the proposed project area contains **zero (0)** recorded indigenous-period/ethnographic-period resource(s) and **zero (0)** recorded historic-period cultural resource(s). Additionally, **two (2)** cultural resources study report(s) on file at this office cover(s) a portion of the proposed project area: 9472 and 12517. The proposed cultivation area has been surveyed by report 9472 in 2002 and report 12517 between 2013 and 2016.

Outside the proposed project area, but within the 1/4-mile radius, the broader search area contains **zero (0)** recorded indigenous-period/ethnographic-period resource(s) and **two (2)** recorded historic-period cultural resource(s): P-09-4683 (developed spring with walnut tree) and P-09-4684 (stock pond with dam). Additionally, **seven (7)** cultural resources study report(s) on file at this office cover(s) a portion of the broader search area: 4975, 6232, 9450, 9469, 9480, 9488, and 9496.

In this part of El Dorado County, archaeologists locate indigenous-period/ethnographic-period habitation sites "along streams or on ridges or knolls, especially those with southern exposure" (Moratto *1984*: 290). This region is known as the ethnographic-period territory of the Northern Sierra Miwok. The Northern Sierra Miwok occupied foothills and mountains of the Mokelumne and Calaveras river drainages (Levy *1978*: 398). The proposed project search area is situated in the Sierra Nevada foothills about 380 feet south of Cedar Creek. Reports 9472 and 12517 have surveyed the proposed cultivation area with negative results for indigenous-period/ethnographic-period cultural resources. Given the extent of known cultural resources and the environmental setting, there is **low potential** for locating indigenous-period/ethnographic-period cultural resources in the immediate vicinity of the proposed project area.

Within the search area, the 1870 GLO plat of T8N, R12E shows evidence of a nineteenth-century road to the north which is now Omo Ranch Road. The 1952 Omo Ranch 7.5' USGS topographical map shows evidence of the current alignment of Omo Ranch Road. Reports 9472 and 12517 surveyed the proposed

cultivation area with negative results for historic-period cultural resources. Given the extent of known cultural resources and patterns of local history, there is **low potential** for locating historic-period cultural resources in the immediate vicinity of the proposed project area.

LITERATURE REFERENCED DURING SEARCH:
In addition to the official records and maps for sites and studies in El Dorado County, the following inventories and references were also reviewed: National Register of Historic Places and California Register of Historical Resources - Listed properties; California Inventory of Historic Resources (*1976*); California State Historical Landmarks; California Points of Historical Interest; Office of Historic Preservation Built Environment Resources Directory (*2020*); Office of Historic Preservation Archaeological Determinations of Eligibility (*2012*); Caltrans State and Local Bridge Surveys; Gold Districts of California (Clark *1970*); California Gold Camps (Gudde *1975*); California Place Names (Gudde *1969*); Historic Spots in California (Hoover et al. *1966* [1990]); Trail of the First Wagons Over the Sierra Nevada (Graydon *1986*); California Archaeology (Moratto *1984*); and the Smithsonian Institution's Handbook of North American Indians, Volume 8, California (Levy *1978*).

SENSITIVITY STATEMENT:

1) With respect to cultural resources, it appears that the proposed project area **is not sensitive**.

2) Should the lead agency/authority require a cultural resources survey, a list of qualified local consultants can be found at http://chrisinfo.org. Please forward copies of any resulting reports and resource records from this project to the North Central Information Center (NCIC) as soon as possible. The lead agency/authority and cultural resources consultant should coordinate sending documentation to NCIC. Please note that local planning agencies rarely, if ever, send reports and resource records to our office. Digital materials are preferred and can be sent to our office through our file transfer system or on a CD by mail via USPS to the address on the top of the first page. Hard copies may also be mailed.

3) If cultural resources are encountered during the project, avoid altering the materials and their context until a qualified cultural resources professional has evaluated the project area. Project personnel should not collect cultural resources. Indigenous-period/ethnographic-period resources include: chert or obsidian flakes, projectile points, and other flaked-stone artifacts; mortars, grinding slicks, pestles, and other groundstone tools; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include: stone or adobe foundations or walls; structures and remains with square nails; mine shafts, tailings, or ditches/flumes; and refuse deposits or bottle dumps, often located in old wells or privies.

4) Identified cultural resources should be recorded on DPR 523 (A-L) historic resource recordation forms, available at https://ohp.parks.ca.gov/?page_id=28351.

5) Review for possible historic-period cultural resources has included only those sources listed in the referenced literature and should not be considered comprehensive. The Office of Historic Preservation has determined that buildings, structures, and objects 45 years or older may be of historical value. If the area of potential effect contains such properties not noted in our research, they should be assessed by an architectural historian before commencement of project activities.

   Due to processing delays and other factors, it is possible that not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact North Central Information Center at ncic@csus.edu or (916) 278-6217 if you have any questions about this records search.

Sincerely,

Paul Rendes, Coordinator
North Central Information Center

Appendix E

Soils Report

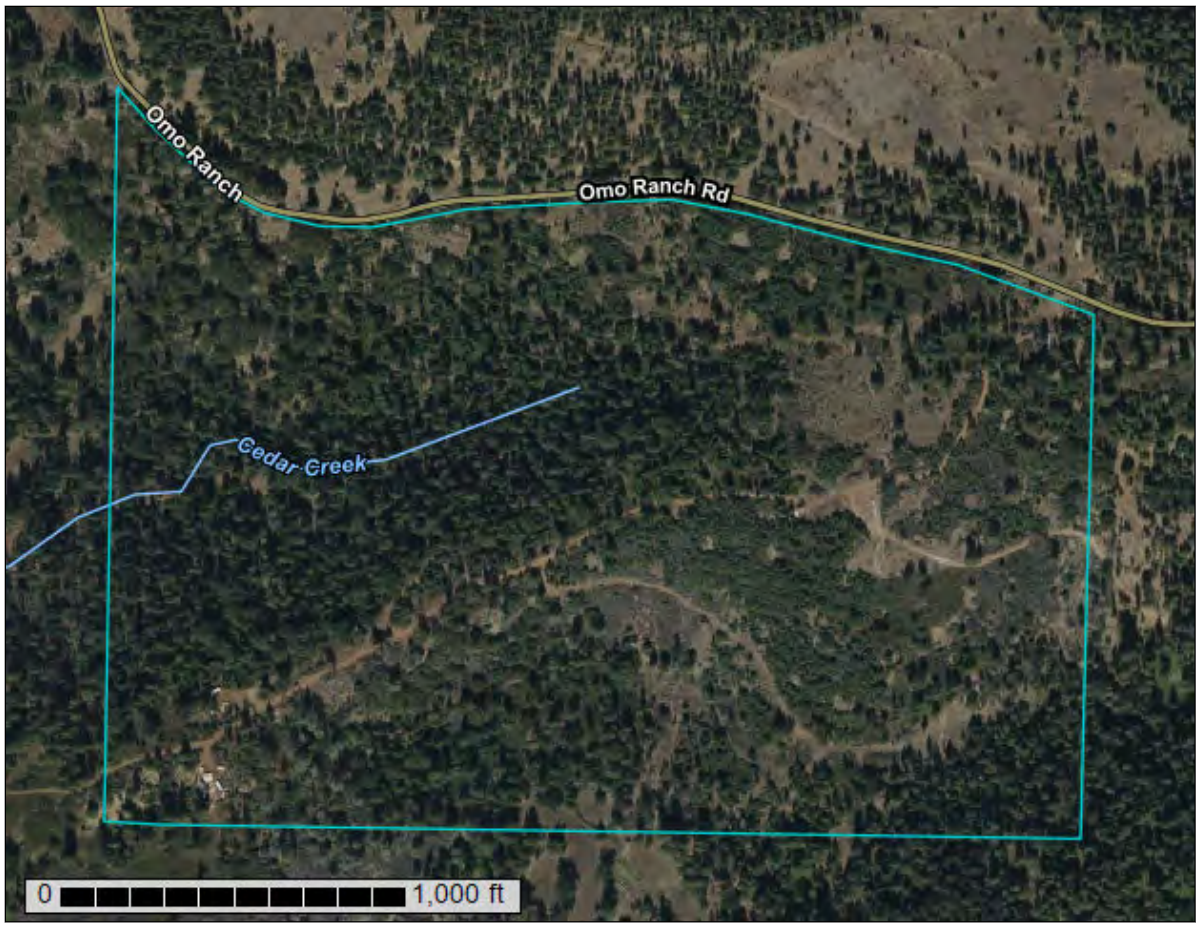
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for El Dorado Area, California



October 23, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface..... 2
How Soil Surveys Are Made.....5
Soil Map..... 8
Soil Map.....9
Legend.....10
Map Unit Legend..... 11
Map Unit Descriptions.....11
El Dorado Area, California..... 13
AgD—Aiken cobbly loam, 3 to 30 percent slopes..... 13
AoB—Argonaut loam, seeped variant..... 14
CmB—Cohasset loam, summits, 2 to 20 percent slopes, dry..... 16
CoE—Cohasset cobbly loam, 15 to 50 percent slopes..... 17
JtD—Josephine silt loam, 15 to 30 percent slopes..... 19
SkD—Sites loam, 15 to 30 percent slopes, C low montane.....20
References.....23

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

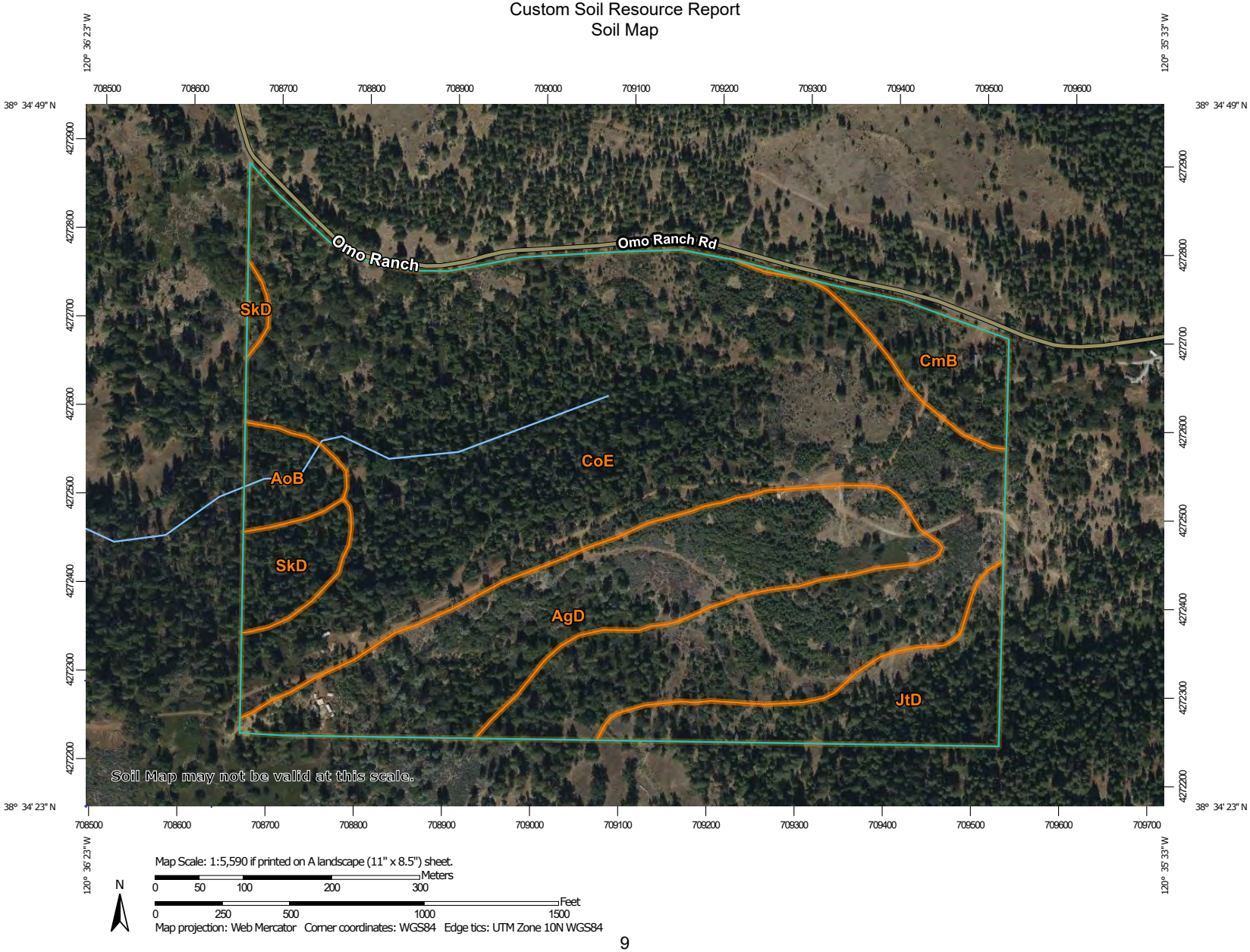
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


120° 36' 23" W
120° 35' 33" W
38° 34' 49" N
38° 34' 23" N
708500
708600
708700
708800
708900
709000
709100
709200
709300
709400
709500
709600
709700
4272900
4272800
4272700
4272600
4272500
4272400
4272300
4272200
Omo Ranch
Omo Ranch Rd
SkD
CmB
CoE
AoB
SkD
AgD
JtD
Soil Map may not be valid at this scale.
Map Scale: 1:5,590 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 50 100 200 300
Feet
0 250 500 1000 1500
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Dorado Area, California
Survey Area Data: Version 15, Aug 31, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 3, 2022—Oct 6, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AgD	Aiken cobbly loam, 3 to 30 percent slopes	19.8	17.3%
AoB	Argonaut loam, seeped variant	2.6	2.3%
CmB	Cohasset loam, summits, 2 to 20 percent slopes, dry	4.5	3.9%
CoE	Cohasset cobbly loam, 15 to 50 percent slopes	76.0	66.2%
JtD	Josephine silt loam, 15 to 30 percent slopes	8.4	7.3%
SkD	Sites loam, 15 to 30 percent slopes, C low montane	3.4	3.0%
Totals for Area of Interest		**114.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

El Dorado Area, California

AgD—Aiken cobbly loam, 3 to 30 percent slopes

Map Unit Setting

National map unit symbol: hhy9
Elevation: 1,200 to 1,500 feet
Mean annual precipitation: 30 to 65 inches
Mean annual air temperature: 50 to 61 degrees F
Frost-free period: 150 to 225 days
Farmland classification: Farmland of local importance

Map Unit Composition

Aiken and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Aiken

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Andesitic conglomerate and/or residuum weathered from tuff breccia

Typical profile

H1 - 0 to 15 inches: cobbly loam
H2 - 15 to 35 inches: cobbly clay loam
H3 - 35 to 72 inches: cobbly clay

Properties and qualities

Slope: 3 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: F022AW007CA - Deep Mesic Mountains >40"ppt
Hydric soil rating: No

Minor Components

Cohasset

Percent of map unit: 3 percent

Hydric soil rating: No

Aiken

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Mccarthy

Percent of map unit: 3 percent
Hydric soil rating: No

Iron mountain

Percent of map unit: 2 percent
Hydric soil rating: No

Sites

Percent of map unit: 2 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Musick

Percent of map unit: 2 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Hydric soil rating: No

AoB—Argonaut loam, seeped variant

Map Unit Setting

National map unit symbol: hhyg
Elevation: 1,800 to 4,000 feet
Mean annual precipitation: 40 inches
Mean annual air temperature: 54 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Argonaut variant and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Argonaut Variant

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Gleyed residuum weathered from slate

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 17 inches: silty clay loam
H3 - 17 to 32 inches: clay
H4 - 32 to 36 inches: weathered bedrock

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 32 to 36 inches to paralithic bedrock
Drainage class: Poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 24 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 11 percent
Landform: Fan remnants
Hydric soil rating: No

Unnamed

Percent of map unit: 2 percent
Landform: Drainageways
Hydric soil rating: Yes

Unnamed

Percent of map unit: 2 percent
Landform: Drainageways
Hydric soil rating: Yes

CmB—Cohasset loam, summits, 2 to 20 percent slopes, dry

Map Unit Setting

National map unit symbol: 2w8c2
Elevation: 2,600 to 4,570 feet
Mean annual precipitation: 40 to 52 inches
Mean annual air temperature: 52 to 58 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Cohasset and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cohasset

Setting

Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Mountaintop, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from volcanic breccia and/or conglomerate

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A1 - 2 to 8 inches: loam
A2 - 8 to 16 inches: loam
Bt1 - 16 to 24 inches: loam
Bt2 - 24 to 37 inches: clay loam
Bt3 - 37 to 48 inches: loam
Cr - 48 to 57 inches: cemented bedrock

Properties and qualities

Slope: 2 to 20 percent
Depth to restrictive feature: 39 to 79 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.2 to 0.5 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C
Ecological site: F022AW004CA - Mesic Mountains <40" ppt
Hydric soil rating: No

Minor Components

Aiken
Percent of map unit: 4 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Cohasset
Percent of map unit: 4 percent
Hydric soil rating: No

Crozier
Percent of map unit: 4 percent
Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Mccarthy
Percent of map unit: 3 percent
Hydric soil rating: No

CoE—Cohasset cobbly loam, 15 to 50 percent slopes

Map Unit Setting
National map unit symbol: hhzf
Elevation: 2,000 to 5,000 feet
Mean annual precipitation: 50 inches
Mean annual air temperature: 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of local importance

Map Unit Composition
Cohasset and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cohasset

Setting
Landform: Ridges

Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Conglomerate derived from andesite and/or residuum weathered from volcanic rock

Typical profile

H1 - 0 to 14 inches: cobbly loam
H2 - 14 to 46 inches: cobbly clay loam
H3 - 46 to 50 inches: weathered bedrock

Properties and qualities

Slope: 15 to 50 percent
Depth to restrictive feature: 46 to 50 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: F022AW004CA - Mesic Mountains <40" ppt
Hydric soil rating: No

Minor Components

Aiken

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Crozier

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Mccarthy

Percent of map unit: 3 percent
Hydric soil rating: No

Josephine

Percent of map unit: 2 percent
Hydric soil rating: No

Sites

Percent of map unit: 2 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Iron mountain

Percent of map unit: 2 percent
Hydric soil rating: No

JtD—Josephine silt loam, 15 to 30 percent slopes

Map Unit Setting

National map unit symbol: hj06
Elevation: 1,200 to 5,000 feet
Mean annual precipitation: 50 inches
Mean annual air temperature: 55 degrees F
Frost-free period: 125 to 260 days
Farmland classification: Farmland of local importance

Map Unit Composition

Josephine and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Josephine

Setting

Landform: Ridges, mountain slopes
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Mountaintop, mountainflank
Down-slope shape: Concave
Across-slope shape: Concave, convex
Parent material: Residuum weathered from metamorphic rock, schist, or slate

Typical profile

H1 - 0 to 14 inches: silt loam
H2 - 14 to 33 inches: clay loam
H3 - 33 to 50 inches: very gravelly silty clay loam
H4 - 50 to 54 inches: weathered bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 50 to 54 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: F022AW007CA - Deep Mesic Mountains >40"ppt
Hydric soil rating: No

Minor Components

Mariposa

Percent of map unit: 5 percent
Landform: Ridges, mountain slopes
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank
Down-slope shape: Concave
Across-slope shape: Convex, concave
Hydric soil rating: No

Sites

Percent of map unit: 5 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Josephine

Percent of map unit: 5 percent
Hydric soil rating: No

SkD—Sites loam, 15 to 30 percent slopes, C low montane

Map Unit Setting

National map unit symbol: 2x29f
Elevation: 1,710 to 3,840 feet
Mean annual precipitation: 37 to 60 inches
Mean annual air temperature: 55 to 59 degrees F
Frost-free period: 200 to 275 days
Farmland classification: Farmland of local importance

Map Unit Composition

Sites and similar soils: 85 percent
Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sites

Setting

Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from metasedimentary rock

Typical profile

Oi - 0 to 3 inches: slightly decomposed plant material
A - 3 to 17 inches: loam
BAt - 17 to 24 inches: loam
Bt - 24 to 56 inches: clay
BCt - 56 to 72 inches: clay
Cr - 72 to 79 inches: bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 39 to 79 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.8 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: F022AW007CA - Deep Mesic Mountains >40"ppt
Hydric soil rating: No

Minor Components

Boomer

Percent of map unit: 9 percent
Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Mariposa

Percent of map unit: 5 percent
Landform: Mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Rock outcrop
Percent of map unit: 1 percent
Landform: Mountains

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Appendix F

Noise Assessment

Environmental Noise Assessment

5600 Omo Ranch Road Greenhouses

El Dorado County, California

November 11, 2021

Project #211005

Prepared for:

Archon Farms Inc
5600 Omo Ranch Road
Somerset, CA 95684

Prepared by:

Saxelby Acoustics LLC

Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering (INCE)

(916) 760-8821
www.SaxNoise.com | Luke@SaxNoise.com
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

INTRODUCTION

The 5600 Omo Ranch Road Greenhouse project is located in El Dorado County, California. The project will include the construction of six greenhouses. The proposed greenhouses will will be connected at the gutter. The greenhouses will be serviced by various fans and mechanical equipment. There are two sensitive receptors within the project vicinity. The purpose of this analysis is to ensure the project meets the noise requirements of El Dorado County at the adjacent residential uses.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

Table 1: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing
Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.		

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

REGULATORY CONTEXT

El Dorado County

The El Dorado County General Plan establishes noise level performance standards for noise sensitive land uses affected by non-transportation noise sources. **Table 2** shows the County standards. The Rural Region noise standards apply to the land uses adjacent to the Project.

Table 2: El Dorado County Exterior Noise Limits

Noise Level Descriptor	Daytime 7 a.m. – 7 p.m.		Evening 7 p.m. – 10 p.m.		Night 10 p.m. – 7 a.m.	
	Community / Rural Centers	Rural Regions	Community / Rural Centers	Rural Regions	Community / Rural Centers	Rural Regions
Hourly L_{eq}, dBA	55	50	50	45	45	40
Maximum Level (L_{max}), dBA	70	60	60	55	55	50

1. Each of the noise levels specified above shall be lowered by 5 dBA for simple tone noises, noises consisting primarily of unamplified speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses, such as caretaker dwellings.
2. The Director can impose noise level standards which are up to 5 dBA less than those specified above, based upon a determination of existing low ambient noise levels in the vicinity of the project site.
3. The exterior noise level standard shall be applied as follows:
   a. In Community Regions, at the property line of the receiving property;
   b. In Rural Centers and Regions, at a point 100 feet away from a sensitive receptor or, if the sensitive receptor is within the Platted Lands Overlay (-PL) where the underlying land use designation is consistent with Community Region densities, at the property line of the receiving property or 100 feet away from the sensitive receptor, whichever is less; or
   c. In all areas, at the boundary of a recorded noise easement between affected properties.

Based upon **Table 2**, the County establishes acceptable noise levels of 50 dBA L_{eq} for daytime (7:00 a.m. to 7:00 p.m.), 45 dBA L_{eq} for evening (7:00 p.m. to 10:00 p.m.), and 40 dBA L_{eq} for nighttime (10:00 p.m. to 7:00 a.m.) operations. This analysis assumes that all fans would operate during nighttime hours. Therefore, the project will need to meet a property line noise level of 40 dBA L_{eq}.

It should be noted that steady-state fan noise does not fluctuate greatly. Therefore, the average (L_{eq}) standard is the most relevant standard. Exceedances of the County's maximum (L_{max}) standards, which are 10 dBA higher, are not predicted to occur.

EVALUATION OF PROJECT GENERATED NOISE AT ADJACENT SENSITIVE RECEPTORS

Greenhouses

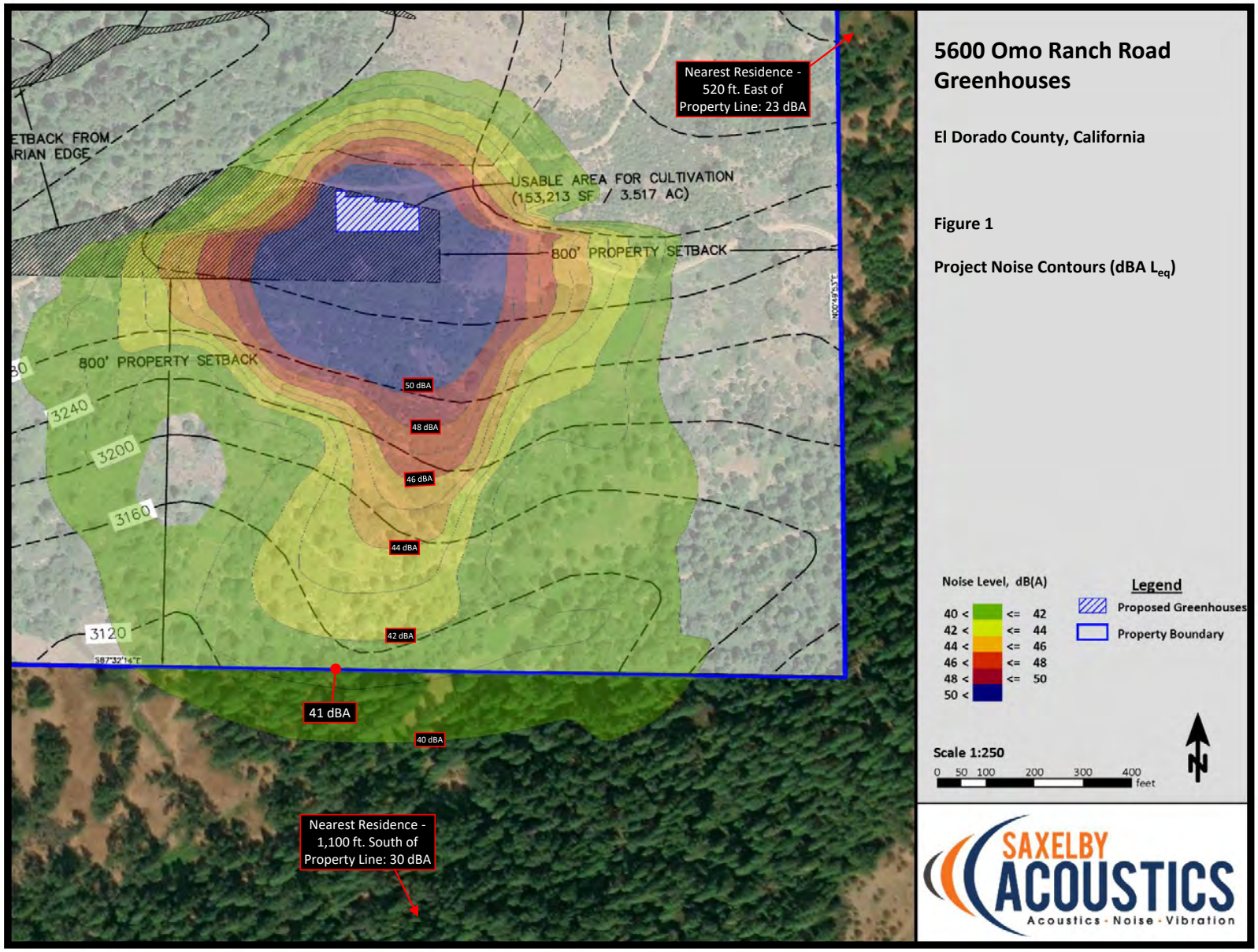
The project proposes the construction of six new greenhouses. Each greenhouse will have two 36-inch Wall Master Box Fans. Saxelby Acoustics utilized previously collected sound level data for similar end wall fans to assess the project noise generation. Noise level data was collected for two 42-inch Schaefer end wall fans. It was determined that the fans generated noise levels of approximately 61 dBA at 50 feet. The measurements taken includes several HAF interior circulation fans; therefore, Saxelby Acoustics conservatively included 8 of these fans in the project model.

It was also assumed that each greenhouse could contain a heater. Saxelby Acoustics utilized manufacturer's sound level data for heaters used in similar projects. The referenced heater had a thermal output of 220,000 BTUh and a reported sound level of 58 dBA at 15 feet. The heaters would be mounted approximately 8-12 feet above ground in each greenhouse.

Results

Noise level data was converted to sound power levels and input into the noise modeling program SoundPLAN. Inputs to the model included sound power levels for the proposed equipment, existing and proposed buildings, terrain type, and locations of sensitive receptors. These predictions are made in accordance with International Organization for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors). ISO 9613 is the most commonly used method for calculating exterior noise propagation.

Based upon the SoundPLAN noise model of the proposed project layout, the proposed fans are predicted to generate noise levels up to 30 dBA at a location 100 feet away from the nearest residential use. These noise levels will comply with the El Dorado County nighttime (10:00 p.m. to 7:00 a.m.) noise standard of 40 dBA L_{eq}. See **Figure 1** for predicted noise levels at the adjacent property lines.


Nearest Residence - 520 ft. East of Property Line: 23 dBA
USABLE AREA FOR CULTIVATION (153,213 SF / 3.517 AC)
800' PROPERTY SETBACK
800' PROPERTY SETBACK
3240
3200
3160
3120
50 dBA
48 dBA
46 dBA
44 dBA
42 dBA
41 dBA
40 dBA
Nearest Residence - 1,100 ft. South of Property Line: 30 dBA
5600 Omo Ranch Road Greenhouses
El Dorado County, California
Figure 1
Project Noise Contours (dBA L_{eq})
Noise Level, dB(A)
40 < <= 42
42 < <= 44
44 < <= 46
46 < <= 48
48 < <= 50
50 <
Legend
Proposed Greenhouses
Property Boundary
Scale 1:250
0 50 100 200 300 400 feet
N
SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

CONCLUSIONS

The proposed project is predicted to meet the El Dorado County 40 dBA L_{eq} nighttime noise standard as planned. This analysis assumes that the project will include twelve 30-inch end wall fans, up to 48 HAF interior circulation fans, and six heaters.

Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix G

Wildland Fire Safe Plan

Archon Farms Inc.

Wildland Fire Safe Plan

Prepared for:

Kevin McCarty

Prepared by:

California Reforestation Inc.
Leon J. Manich
#1970
22230A So Colorado River Drive
Sonora. CA 95370

October 22, 2021

Archon Holdings LLC

Approved by:

Pioneer Fire District **7061 Mt. Aukum Rd,** **Somerset, CA**	**Date**
CAL FIRE Amador-Eldorado Unit	**Date**

Prepared by:

Leon J Manich **RPF 1970**	**Date**

Contents

I. Purpose

II. Fire Plan Limitations

III. Wildland Fire Safe Plan

1) Project Description

2) Project Vegetation

3) Problem Statements

4) Goals

5) Wildfire mitigation measures

6) Other Fire Safe Requirements

7) Open Space Guidelines

IV. A. Fuels Treatment Specifications

B. Maps

I. Purpose and Scope

Wildfire has become a major concern throughout the Sierra Foothills. The history of recent catastrophic events that have taken lives and destroyed millions in property have brought the problem to the forefront. It is essential to plan for fire safety with every activity. The increasing density of people and increase in fuels create a dangerous combination of potential ignition and wildfire. The hot dry summers in the area continue to create dangerous explosive fire potential. The 2021 fire season included the Caldor Fire that originated east of the parcel and burned over the pass into the Tahoe Basin. These events bring home the potential impacts of wildfire.

The purpose of this plan is to assess the wildfire risks from the Archon Cannabis cultivation project and establish measures to protect the infrastructure of the project as well as protecting the flora and fauna of the area.

The risk of wildfire on the project area will be increased due to the increase in human activity. The risk of fire escaping the area will be somewhat lessened as to the establishment of reduced fuel loading in selected area and the establishment of a water source on site. Fire entering the area from outside will remain the same. Landowners are trying to control fuels but the area has low population density and is dominated with rural parcels. Property adjacent to the project is managed by Sierra Pacific Industries the largest private timberland owner in California. They are actively managing their holdings to control acceptable fuel conditions.

State and County regulations provide the basic guidelines for fuel management in and around structures. This plan takes these measures and builds on their principles. A key element to success of the plan is a commitment to maintaining conditions as vegetation grows in the future.

An essential element in creating a fire safe area is implementation of fuel management over the landscape. An advantage on the parcel is that the surrounding parcels are privately held. The nearest public land is adjacent to the to the southwest of the subject parcel and owned by the Bureau of Land Management (BLM). There nearest public land after that is about a mile north in the Cosumnes River canyon. All the local landowners need to work together to secure funding and support fuel reduction activities.

II. Fire Plan Limitations

The Wildland Fire Safe Plan for the Archon Farms cultivation project does not guarantee that a wildfire will not start or burn through the area. The plan is designed to reduce the intensity of the fire and provide firefighters access to water and increase safety for ingress and egress. The plan will improve the safety of infrastructure developed by Archon to conduct the cannabis operation.

III. Wildland Fire Safe Plan

1. Project Description

The Archon Farms cultivation project is located south of Omo Ranch Road approximately 1 mile west of Omo Ranch. The parcel consists of 117.59 acres with the northern border Omo Ranch Road. North of the parcel is Perry Creek and south is Brownsville Creek. The parcel is located in the headwaters of Cedar Creek. There are no Class I watercourses on the parcel. A dominate ridge runs through the property from the northeast to the southeast. Paul Summer road a native surface road runs along the ridge. The parcel has supported commercial timber harvests in the past and the road system on the parcel provides adequate access for this purpose.

The project will include the development of a well, establishment of cultivation hoop houses, a cannabis processing structure, an orchard, a food garden, a vineyard, a rural campground, and construction of two residences. Total acreage affected by development is approximately 8 acres. As the project develops portions of Paul Summer Road will be improved with a rock or other base to provide better access. Associated with the well will be a 5,000 gallon water storage facility for fire protection. It is anticipated the project may take up to 5 years for completion.

The parcel is in the Pioneer Fire District and within the CALFIRE Amador-El Dorado Unit.

2. Project Vegetation (Fuels)

Overall vegetation on the parcel is described as low elevation Mixed Conifer. Dominate species are Ponderosa Pine with Sugar Pine, Douglas Fir, White Fir, and Incense Cedar. The Wildlife-Habitat Relationship (WHR) for the area would be PPN (Ponderosa Pine) size class 3 and 4, with moderate to dense cover. There

are rocky areas along the ridge with open patches. Slopes are gentle and entire area is accessible to tractor operations. The area has supported commercial harvest in the past the last major entry occurring about 20 years ago. The best stocking is associated with the north facing slope along Cedar Creek. Size of the over story is small to medium saw logs. Portions of the area were planted and currently support 20 year old plantations. Trees are healthy and some Giant Sequoia are growing well. These stands have not received any pre-commercial thinning or fuel reduction work. As a result ladder fuels are present and the area is overstocked. Inter-tree spacing is too tight with crowns very close or touching. Understory consists of manzanita, bear clover, and other brush. If a fire were to go through the area most of these stands would not survive. On the poorer sites Live Oak and Black Oak with brush are dominate.

3. <u>Problem Statements</u>

A. The continuity of fuels combined with the topography would result in rapid destructive escalation of a wildfire.

Heavy fuels with continuity is the most serious wildfire problem.

B. Risk of fire ignition will increase with project.

The increase in human activity increases the probability of ignition.

C. Provisions must be made to maintain fuel treatments and levels.

The key to fuel reduction is an aggressive maintenance program. If maintenance does not occur benefits from initial clearing reduce rapidly and after 5 years are negligible. Maintenance should include all tools available including manual, biological, and chemical methods.

D. Infrastructure losses are highly correlated to inadequate fuel management.

A high number of structures lost in wildfire are a result of inadequate maintenance of adjacent fuels.

E. Maintenance if ingress and egress.

Maintaining adequate ingress and egress is to survivability. Road clearances allow escape routes and access for emergency vehicles.

4. Goals

A. Modify the current structure of fuels to improve fire safety.
B. Reduce size and intensity of wildfires.

C. Ensure defensible space is established and maintained around infrastructure.
D. Improve safety along access routes.

5. Wildfire Mitigation Measures

Wildfire mitigation measures are designed to achieve goals by establishing and maintaining defensible space around infrastructure. The Wildfire Fire Safe Plan emphasizes the establishment and maintenance around structures and along roads.

Building materials should be used that are fire resistant. Metal siding, non-wood roofing, fire resistant decking, and other nonflammable materials should be used.

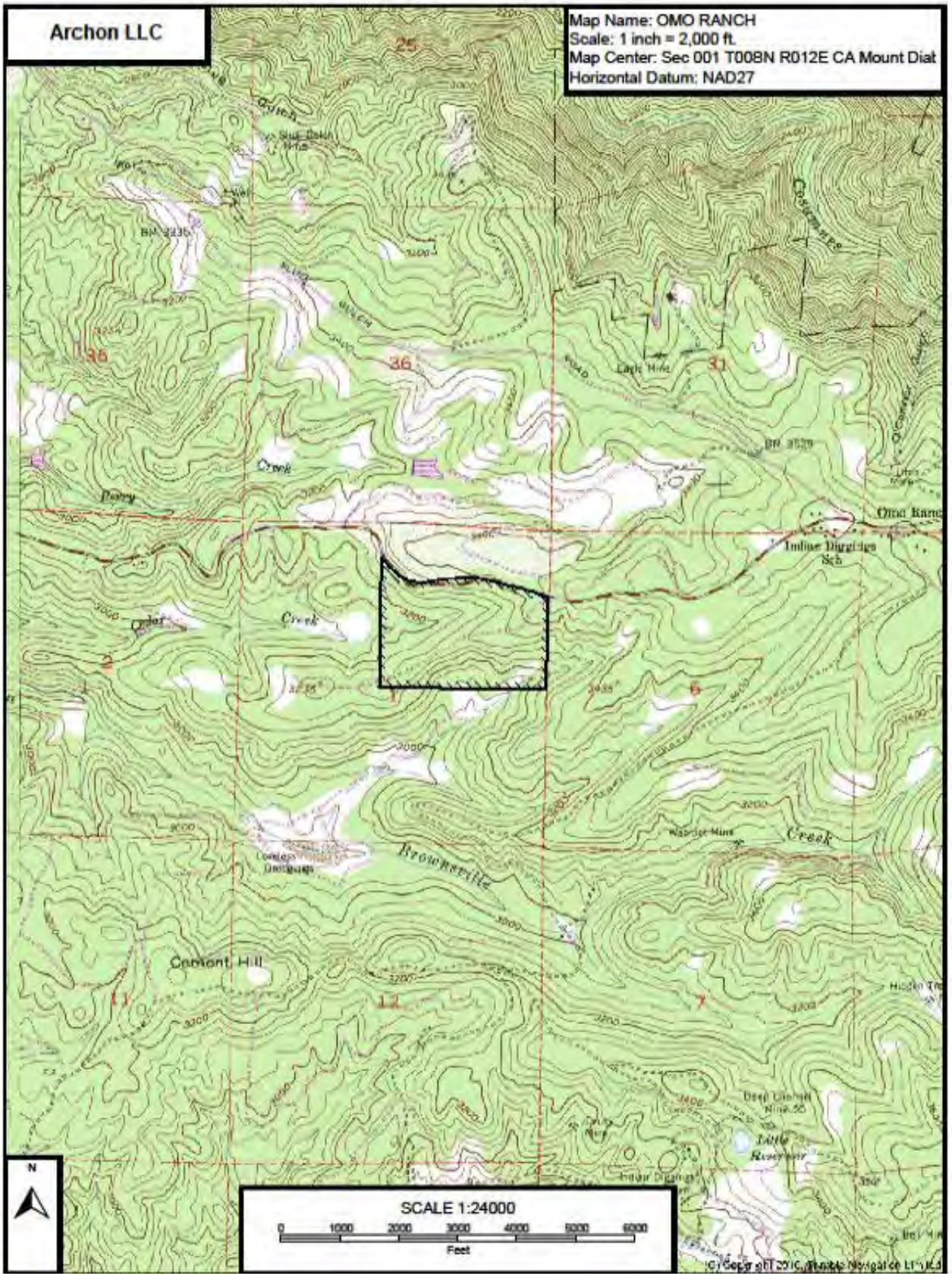
With the establishment of the well water storage should be designed to easily provide access to fire suppression vehicles. Construction of the new residence should include a fire suppression system.

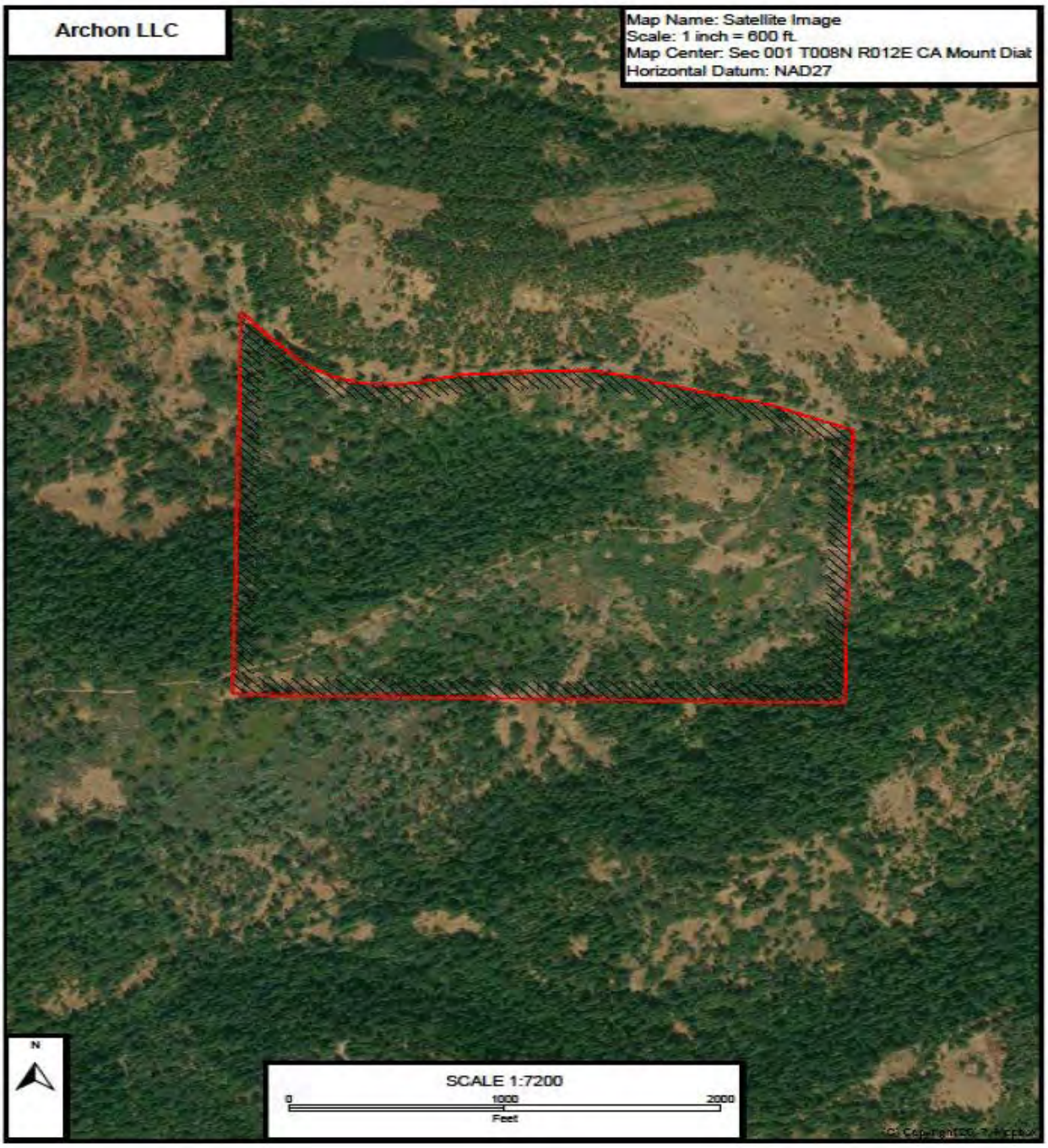
Mitigation Measures:

- Access road should be minimum 12 feet wide with invisible turnouts and turnaround bubble at the end of the property line.
- Access off Omo Ranch road should be gated with access given to Fire District and CAL FIRE.
- Noncombustible building materials should be used.
- A minimum of 100' around structures shall be maintained. Within this zone the first 30 feet shall be clear of all vegetation. The area from 30 to 100 feet shall be thinned to these specifications.
    1) Crowns of leave trees shall be kept a minimum of 10 feet distance.
    2) Trees shall be limbed to 10 feet.
    3) Any shrubs within zone shall have spacing equal to twice their height between plants.
    4) All dead wood and brush shall be moved out of zone.
    5) Areas shall be maintained on a yearly basis with all necessary work completed by June 1.
- Main Access Road:
    1) No overhanging limbs shall be allowed along road.

2) A minimum of 50 feet shall be maintained as a shaded fuel break meeting the specifications listed above for the 30 to 100 feet around structures.

- To help the overall fire safety landowner should engage with NRCS or CAL FIRE to secure cost share funding and conduct fuel reduction on the entire property.
- Establish a 300’ wide fuel break following the road along the ridge to allow defensible space for fire suppression activities.


Archon LLC
Map Name: OMO RANCH
Scale: 1 inch = 2,000 ft.
Map Center: Sec 001 T008N R012E CA Mount Diat
Horizontal Datum: NAD27
Cement Hill
SCALE 1:24000
0 1000 2000 3000 4000 5000 6000
Feet


Archon LLC
Map Name: Satellite Image
Scale: 1 inch = 600 ft.
Map Center: Sec 001 T008N R012E CA Mount Diat
Horizontal Datum: NAD27
N
SCALE 1:7200
0
1000
2000
Feet

Appendix H

AB 52 Consultation Record

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
http://www.edcgov.us/DevServices/

PLACERVILLE OFFICE:
2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

December 7, 2021

Colfax-Todds Valley Consolidated Tribe
Pamela Cubbler, Treasurer
P.O. Box 4884
Auburn, CA 95604

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0008/Archon Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Ms. Dear Ms. Cubbler,

This letter is in response to your request received on March 6, 2018 for formal notification of proposed projects within the Colfax-Todds Valley Consolidated Tribe Geographic Area of Traditional and Cultural Affiliation.

CCUP21-0008/Archon Commercial Cannabis Cultivation (Archon Farms Inc., Kevin McCarty/RFE Engineering, Inc.): A Commercial Cannabis Use Permit request for commercial cannabis cultivation. The project will include:

1. Nursery Cultivation Area (immature plants only) totaling 17,640 SF.
2. There will also be a Flowering / Mature Canopy Cultivation Area with Hoop House Greenhouse totaling 10,000 SF (there will be six (6) greenhouses of various dimensions ranging from 1,440 SF to 1,800 SF).
3. Water well proposed.
4. Water storage proposed (5,000 gallons).
5. Composting area (625 SF)
6. Buildings / Storage Structures consisting of:
    a. Pesticide and AG chemical storage area proposed (1,200 SF)
    b. Harvest Storage Area proposed (1,200 SF)

The property, identified by Assessor's Parcel Number 095-030-036, consists of 117.59 acres, and is located on the south side of Omo Ranch Road, approximately 1 mile west of the intersection with Slug Gulch Road, **in the Somerset area**.

County Planner: Aaron Mount
Phone: 530-621-5345 **Email: aaron.mount@edcgov.us**

Site plans are attached and additional project documentation can be viewed using this link: https://drive.google.com/drive/folders/17oq8F5koEkTTof_UA1TtGokjDeWJJG-A?usp=sharing

This project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which require Native American outreach. Pursuant to AB52, the County is soliciting input from Native American organizations and representatives listed with the Native American Heritage

Commission to identify cultural resources and properties of concern to the Native American Community.

Please respond within 30 days of receipt of this letter to provide any information regarding archaeological sites, tribal cultural resources or areas of cultural importance known to occur within or near the project area and/or to request consultation with the County, if desired. In accordance with federal and state laws, information received in response to this letter will be kept confidential. If you have any questions regarding this project or require further information, please do not hesitate to contact us. We can be reached by phone 530-621-5355 or via email at planning@edcgov.us.

cc. Clyde Prout, Chairperson

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
http://www.edcgov.us/DevServices/

PLACERVILLE OFFICE:
2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

December 7, 2021

Ione Band of Miwok Indians
Sara D. Setshwaelo, Chairwoman
P.O. Box 699
Plymouth, CA 95668

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0008/Archon Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Ms. Setshwaelo,

This letter is in response to your request received on March 7, 2016 for formal notification of proposed projects within the Ione Band of Miwok Indians Geographic Area of Traditional and Cultural Affiliation.

CCUP21-0008/Archon Commercial Cannabis Cultivation (Archon Farms Inc., Kevin McCarty/RFE Engineering, Inc.): A Commercial Cannabis Use Permit request for commercial cannabis cultivation. The project will include:

1. Nursery Cultivation Area (immature plants only) totaling 17,640 SF.
2. There will also be a Flowering / Mature Canopy Cultivation Area with Hoop House Greenhouse totaling 10,000 SF (there will be six (6) greenhouses of various dimensions ranging from 1,440 SF to 1,800 SF).
3. Water well proposed.
4. Water storage proposed (5,000 gallons).
5. Composting area (625 SF)
6. Buildings / Storage Structures consisting of:
    a. Pesticide and AG chemical storage area proposed (1,200 SF)
    b. Harvest Storage Area proposed (1,200 SF)

The property, identified by Assessor's Parcel Number 095-030-036, consists of 117.59 acres, and is located on the south side of Omo Ranch Road, approximately 1 mile west of the intersection with Slug Gulch Road, **in the Somerset area**.

County Planner: Aaron Mount
Phone: 530-621-5345 **Email: aaron.mount@edcgov.us**

Site plans are attached and additional project documentation can be viewed using this link: https://drive.google.com/drive/folders/17oq8F5koEkTTof_UA1TtGokjDeWJJG-A?usp=sharing

This project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which require Native American outreach. Pursuant to AB52, the County is soliciting input from Native American organizations and representatives listed with the Native American Heritage

Commission to identify cultural resources and properties of concern to the Native American Community.

Please respond within 30 days of receipt of this letter to provide any information regarding archaeological sites, tribal cultural resources or areas of cultural importance known to occur within or near the project area and/or to request consultation with the County, if desired. In accordance with federal and state laws, information received in response to this letter will be kept confidential. If you have any questions regarding this project or require further information, please do not hesitate to contact us. We can be reached by phone 530-621-5355 or via email at planning@edcgov.us.

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
http://www.edcgov.us/DevServices/

PLACERVILLE OFFICE:
2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

December 7, 2021

Nashville-El Dorado Miwok
Mr. Cosme Valdez
Interim Chief Executive Officer
P.O. Box 580986
Elk Grove, CA 95758

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0008/Archon Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Mr. Valdez,

This letter is in response to your request received on July 15, 2016 for formal notification of proposed projects within the Nashville-El Dorado Miwok Geographic Area of Traditional and Cultural Affiliation.

CCUP21-0008/Archon Commercial Cannabis Cultivation (Archon Farms Inc., Kevin McCarty/RFE Engineering, Inc.): A Commercial Cannabis Use Permit request for commercial cannabis cultivation. The project will include:

1. Nursery Cultivation Area (immature plants only) totaling 17,640 SF.
2. There will also be a Flowering / Mature Canopy Cultivation Area with Hoop House Greenhouse totaling 10,000 SF (there will be six (6) greenhouses of various dimensions ranging from 1,440 SF to 1,800 SF).
3. Water well proposed.
4. Water storage proposed (5,000 gallons).
5. Composting area (625 SF)
6. Buildings / Storage Structures consisting of:
    a. Pesticide and AG chemical storage area proposed (1,200 SF)
    b. Harvest Storage Area proposed (1,200 SF)

The property, identified by Assessor's Parcel Number 095-030-036, consists of 117.59 acres, and is located on the south side of Omo Ranch Road, approximately 1 mile west of the intersection with Slug Gulch Road, **in the Somerset area**.

County Planner: Aaron Mount
Phone: 530-621-5345 **Email: aaron.mount@edcgov.us**

Site plans are attached and additional project documentation can be viewed using this link: https://drive.google.com/drive/folders/17oq8F5koEkTTof_UA1TtGokjDeWJJG-A?usp=sharing

This project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which require Native American outreach. Pursuant to AB52, the County is soliciting input from Native American organizations and representatives listed with the Native American Heritage Commission to identify cultural resources and properties of concern to the Native American Community.

Please respond within 30 days of receipt of this letter to provide any information regarding archaeological sites, tribal cultural resources or areas of cultural importance known to occur within or near the project area and/or to request consultation with the County, if desired. In accordance with federal and state laws, information received in response to this letter will be kept confidential. If you have any questions regarding this project or require further information, please do not hesitate to contact us. We can be reached by phone 530-621-5355 or via email at planning@edcgov.us.

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
http://www.edcgov.us/DevServices/

PLACERVILLE OFFICE:
2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

December 7, 2021

Shingle Springs Band of Miwok Indians
Ms. Regina Cuellar, Chairwoman
P.O. Box 1340
Shingle Springs, CA 95682

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0008/Archon Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Ms. Cuellar,

This letter is in response to your request received on July 15, 2016 for formal notification of proposed projects within the Shingle Springs Band of Miwok Indians Geographic Area of Traditional and Cultural Affiliation.

CCUP21-0008/Archon Commercial Cannabis Cultivation (Archon Farms Inc., Kevin McCarty/RFE Engineering, Inc.): A Commercial Cannabis Use Permit request for commercial cannabis cultivation. The project will include:

1. Nursery Cultivation Area (immature plants only) totaling 17,640 SF.
2. There will also be a Flowering / Mature Canopy Cultivation Area with Hoop House Greenhouse totaling 10,000 SF (there will be six (6) greenhouses of various dimensions ranging from 1,440 SF to 1,800 SF).
3. Water well proposed.
4. Water storage proposed (5,000 gallons).
5. Composting area (625 SF)
6. Buildings / Storage Structures consisting of:
    a. Pesticide and AG chemical storage area proposed (1,200 SF)
    b. Harvest Storage Area proposed (1,200 SF)

The property, identified by Assessor's Parcel Number 095-030-036, consists of 117.59 acres, and is located on the south side of Omo Ranch Road, approximately 1 mile west of the intersection with Slug Gulch Road, **in the Somerset area**.

County Planner: Aaron Mount
Phone: 530-621-5345 **Email: aaron.mount@edcgov.us**

Site plans are attached and additional project documentation can be viewed using this link: https://drive.google.com/drive/folders/17oq8F5koEkTTof_UA1TtGokjDeWJJG-A?usp=sharing

This project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which require Native American outreach. Pursuant to AB52, the County is soliciting input from Native American organizations and representatives listed with the Native American Heritage Commission to identify cultural resources and properties of concern to the Native American Community.

Please respond within 30 days of receipt of this letter to provide any information regarding archaeological sites, tribal cultural resources or areas of cultural importance known to occur within or near the project area and/or to request consultation with the County, if desired. In accordance with federal and state laws, information received in response to this letter will be kept confidential. If you have any questions regarding this project or require further information, please do not hesitate to contact us. We can be reached by phone 530-621-5355 or via email at planning@edcgov.us.

cc. James Sarmento, Executive Director of Cultural Resources

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
http://www.edcgov.us/DevServices/

PLACERVILLE OFFICE:
2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

December 7, 2021

Tsi Akim Maidu
Mr. Don Ryberg, Chairperson
P.O. Box 510
Browns Valley, CA 95918

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0008/Archon Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Mr. Coney,

This letter is in response to your request received on July 15, 2016 for formal notification of proposed projects within the T'si-Akim Maidu-Colfax Geographic Area of Traditional and Cultural Affiliation.

CCUP21-0008/Archon Commercial Cannabis Cultivation (Archon Farms Inc., Kevin McCarty/RFE Engineering, Inc.): A Commercial Cannabis Use Permit request for commercial cannabis cultivation. The project will include:

1. Nursery Cultivation Area (immature plants only) totaling 17,640 SF.
2. There will also be a Flowering / Mature Canopy Cultivation Area with Hoop House Greenhouse totaling 10,000 SF (there will be six (6) greenhouses of various dimensions ranging from 1,440 SF to 1,800 SF).
3. Water well proposed.
4. Water storage proposed (5,000 gallons).
5. Composting area (625 SF)
6. Buildings / Storage Structures consisting of:
    a. Pesticide and AG chemical storage area proposed (1,200 SF)
    b. Harvest Storage Area proposed (1,200 SF)

The property, identified by Assessor's Parcel Number 095-030-036, consists of 117.59 acres, and is located on the south side of Omo Ranch Road, approximately 1 mile west of the intersection with Slug Gulch Road, **in the Somerset area**.

County Planner: Aaron Mount
Phone: 530-621-5345 **Email: aaron.mount@edcgov.us**

Site plans are attached and additional project documentation can be viewed using this link: https://drive.google.com/drive/folders/17oq8F5koEkTTof_UA1TtGokjDeWJJG-A?usp=sharing

This project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which require Native American outreach. Pursuant to AB52, the County is soliciting input from Native American organizations and representatives listed with the Native American Heritage Commission to identify cultural resources and properties of concern to the Native American Community.

Please respond within 30 days of receipt of this letter to provide any information regarding archaeological sites, tribal cultural resources or areas of cultural importance known to occur within or near the project area and/or to request consultation with the County, if desired. In accordance with federal and state laws, information received in response to this letter will be kept confidential. If you have any questions regarding this project or require further information, please do not hesitate to contact us. We can be reached by phone 530-621-5355 or via email at planning@edcgov.us.

cc. Grayson Coney, Cultural Director

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
http://www.edcgov.us/DevServices/

PLACERVILLE OFFICE:
2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

December 7, 2021

United Auburn Indian Community of the Auburn Rancheria — CERTIFIED MAIL
Gene Whitehouse, Chairman
10720 Indian Hill Road
Auburn, CA 95603

RE: Assembly Bill 52 Consultation for **CCUP21-0008/Archon Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Mr. Whitehouse,

This letter is in response to your request received on February 18, 2020 for formal notification of proposed projects within the United Auburn Indian Community of the Auburn Rancheria's Geographic Area of Traditional and Cultural Affiliation.

CCUP21-0008/Archon Commercial Cannabis Cultivation (Archon Farms Inc., Kevin McCarty/RFE Engineering, Inc.): A Commercial Cannabis Use Permit request for commercial cannabis cultivation. The project will include:

1. Nursery Cultivation Area (immature plants only) totaling 17,640 SF.
2. There will also be a Flowering / Mature Canopy Cultivation Area with Hoop House Greenhouse totaling 10,000 SF (there will be six (6) greenhouses of various dimensions ranging from 1,440 SF to 1,800 SF).
3. Water well proposed.
4. Water storage proposed (5,000 gallons).
5. Composting area (625 SF)
6. Buildings / Storage Structures consisting of:
    a. Pesticide and AG chemical storage area proposed (1,200 SF)
    b. Harvest Storage Area proposed (1,200 SF)

The property, identified by Assessor's Parcel Number 095-030-036, consists of 117.59 acres, and is located on the south side of Omo Ranch Road, approximately 1 mile west of the intersection with Slug Gulch Road, **in the Somerset area**.

County Planner: Aaron Mount
Phone: 530-621-5345 **Email: aaron.mount@edcgov.us**

Site plans are attached and additional project documentation can be viewed using this link: https://drive.google.com/drive/folders/17oq8F5koEkTTof_UA1TtGokjDeWJJG-A?usp=sharing

This project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which require Native American outreach. Pursuant to AB52, the County is soliciting input from Native American organizations and representatives listed with the Native American Heritage

Commission to identify cultural resources and properties of concern to the Native American Community.

Please respond within 30 days of receipt of this letter to provide any information regarding archaeological sites, tribal cultural resources or areas of cultural importance known to occur within or near the project area and/or to request consultation with the County, if desired. In accordance with federal and state laws, information received in response to this letter will be kept confidential. If you have any questions regarding this project or require further information, please do not hesitate to contact us. We can be reached by phone 530-621-5355 or via email at planning@edcgov.us.

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT
http://www.edcgov.us/DevServices/

PLACERVILLE OFFICE:
2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

December 7, 2021

Washoe Tribe of Nevada and California
Darrel Cruz, Director
Washoe Tribal Historic Preservation Office
919 Highway 395 South
Gardnerville, NV 89410

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0008/Archon Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Mr. Cruz,

This letter is in response to your request received on May 2, 2016 for formal notification of proposed projects within the Washoe Tribe of Nevada and California Geographic Area of Traditional and Cultural Affiliation.

CCUP21-0008/Archon Commercial Cannabis Cultivation (Archon Farms Inc., Kevin McCarty/RFE Engineering, Inc.): A Commercial Cannabis Use Permit request for commercial cannabis cultivation. The project will include:

1. Nursery Cultivation Area (immature plants only) totaling 17,640 SF.
2. There will also be a Flowering / Mature Canopy Cultivation Area with Hoop House Greenhouse totaling 10,000 SF (there will be six (6) greenhouses of various dimensions ranging from 1,440 SF to 1,800 SF).
3. Water well proposed.
4. Water storage proposed (5,000 gallons).
5. Composting area (625 SF)
6. Buildings / Storage Structures consisting of:
    a. Pesticide and AG chemical storage area proposed (1,200 SF)
    b. Harvest Storage Area proposed (1,200 SF)

The property, identified by Assessor's Parcel Number 095-030-036, consists of 117.59 acres, and is located on the south side of Omo Ranch Road, approximately 1 mile west of the intersection with Slug Gulch Road, **in the Somerset area**.

County Planner: Aaron Mount
Phone: 530-621-5345 **Email: aaron.mount@edcgov.us**

Site plans are attached and additional project documentation can be viewed using this link: https://drive.google.com/drive/folders/17oq8F5koEkTTof_UA1TtGokjDeWJJG-A?usp=sharing

This project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which require Native American outreach. Pursuant to AB52, the County is soliciting input from Native American organizations and representatives listed with the Native American Heritage Commission to identify cultural resources and properties of concern to the Native American Community.

Please respond within 30 days of receipt of this letter to provide any information regarding archaeological sites, tribal cultural resources or areas of cultural importance known to occur within or near the project area and/or to request consultation with the County, if desired. In accordance with federal and state laws, information received in response to this letter will be kept confidential. If you have any questions regarding this project or require further information, please do not hesitate to contact us. We can be reached by phone 530-621-5355 or via email at planning@edcgov.us.

cc. Serrell Smokey, Chairperson

Commercial Cannabis Use Permit / Archon Farms

AERIAL & TOPOGRAPHIC MAP

5600 OMO RANCH RD, EL DORADO COUNTY, CA 95684 APN: 095-030-036-000 ZONING: RL-160 (RURAL LANDS)

LAND USE DESIGNATION: NR (NATURAL RESOURCE)

100 0 100 200

1 INCH = 100 FEET

N

NOT FOR CONSTRUCTION

BY	CHECK	NO.	REVISION	DATE	BY	APPRVD
DESIGN						
DRAWN						
QUANT.						

ORIGINAL SCALE IS IN INCHES 0 1 2

REGISTERED PROFESSIONAL ENGINEER ROBERT F. EYRICH No. C040666 Exp. 3-31-21 CIVIL STATE OF CALIFORNIA

RFE ENGINEERING, INC
Civil Engineers • Planners • Surveyors
2260 Douglas Blvd, Suite 160, Roseville, CA 95661
Ph: 916-772-7800 Fax: 916-772-7804
www.rfeengineering.com

ARCHON FARMS INC.
701 12TH STREET
SACRAMENTO, CA 95814
CONTACT: KEVIN MCCARTY
PH: (775) 240-3055

5600 OMO RANCH RD CANNABIS
5600 OMO RANCH RD
EL DORADO COUNTY, CA 95684
APN: 095-030-036-000

AERIAL & TOPOGRAPHIC MAP

Sheet
C1
1 of 1
08/09/2021

RFE PROJECT 21-131 – 117 OMO RANCH RD CANNABIS; 117 OMO RANCH RD, EL DORADO COUNTY, CA. 95684

GATE ACCESS TO SITE FROM OMO RANCH ROAD

EXISTING WATERCOURSE/ RIPARIAN EDGE

300' SETBACK FROM RIPARIAN EDGE

800' PROPERTY SETBACK

USABLE AREA FOR CULTIVATION (153,213 SF / 3.517 AC)

NURSERY CULTIVATION AREA (IMMATURE PLANTS ONLY) 17,640 SF / 0.4 AC.

FLOWERING / MATURE CANOPY CULTIVATION AREA 10,000 SF / 0.23 AC.

WATER STORAGE (PROPOSED) 5,000 GAL

WATER WELL (PROPOSED) (38.576623, -120.596780)

PARKIN G AREA

COMPOSTIN G AREA 625 SF

PACKAGE S ENTRY

PESTICID E & AG. CHEM. AL STORAGE AREA (PROPOSED) 1,200 SF

HARVEST STORAGE AREA (PROPOSED) 1,200 SF

6' SOLID WOOD FENCING (PROPOSED)

N85°18'21"W 101.29'
R=300.00' L=101.78'
Δ=19°26'18"

S80°42'51"W 118.42'
R=800.00' L=118.52'
Δ=8°29'19"

576.80'
S84°57'30"W

617.21'
N75°36'12"W

N75°39'43"W 204.11'
R=900.00' L=204.55'
Δ=13°01'19"

S78°53'17"E 103.14'
R=900.00' L=103.20'
Δ=6°34'11"

340.49'
S69°09'04"W

162.19'
N43°10'21"W

S63°10'43"E 247.32'
R=400.00' L=251.44'
Δ=36°00'36"

138.29'
N81°11'17"W

N87°38'27"E 116.24'
R=300.00' L=116.98'
Δ=22°20'32"

109.05'
S76°28'11"W

2085.48'
S01°54'27"W

N00°49'53"E
1567.47'

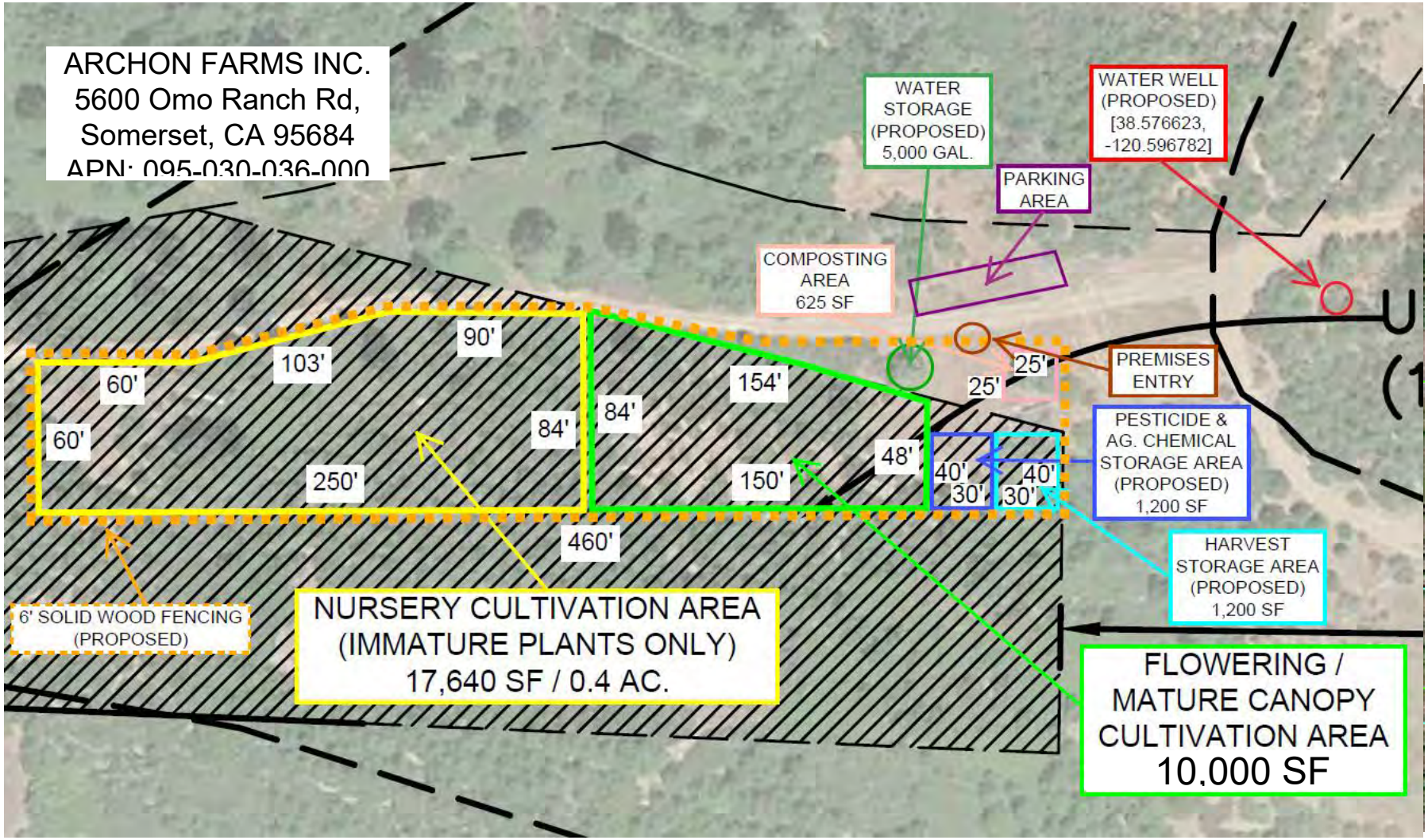
S87°32'14"E
2893.13'

3440 3400 3360 3320 3280 3240 3200 3160 3120

ARCHON FARMS INC.
701 12th Street, Ste 201
Sacramento, CA 95814
(775) 240-3055
kevinwmccarty@pm.me

Property Information:
Lot Size: 117.59 acres
Fire District: Pioneer FPD
Water: Unassigned
Sewer: N/A

2:\2021 Projects\21-131 117 Omo Ranch Rd Cannabis\WORKING CAD\Preliminary\Site Plan 21-131.dwg Aug 09, 2021-03:43 pm



November 7, 2021

Cannabis Cultivation Premises Aerial Zoom Map - 5600 Omo Ranch Rd

Search Results: Parcels

Override 1

County Outline

Highway Labels

Highways

Major Roads

Major Roads

Minor Roads

Cities

Parcels

Rivers

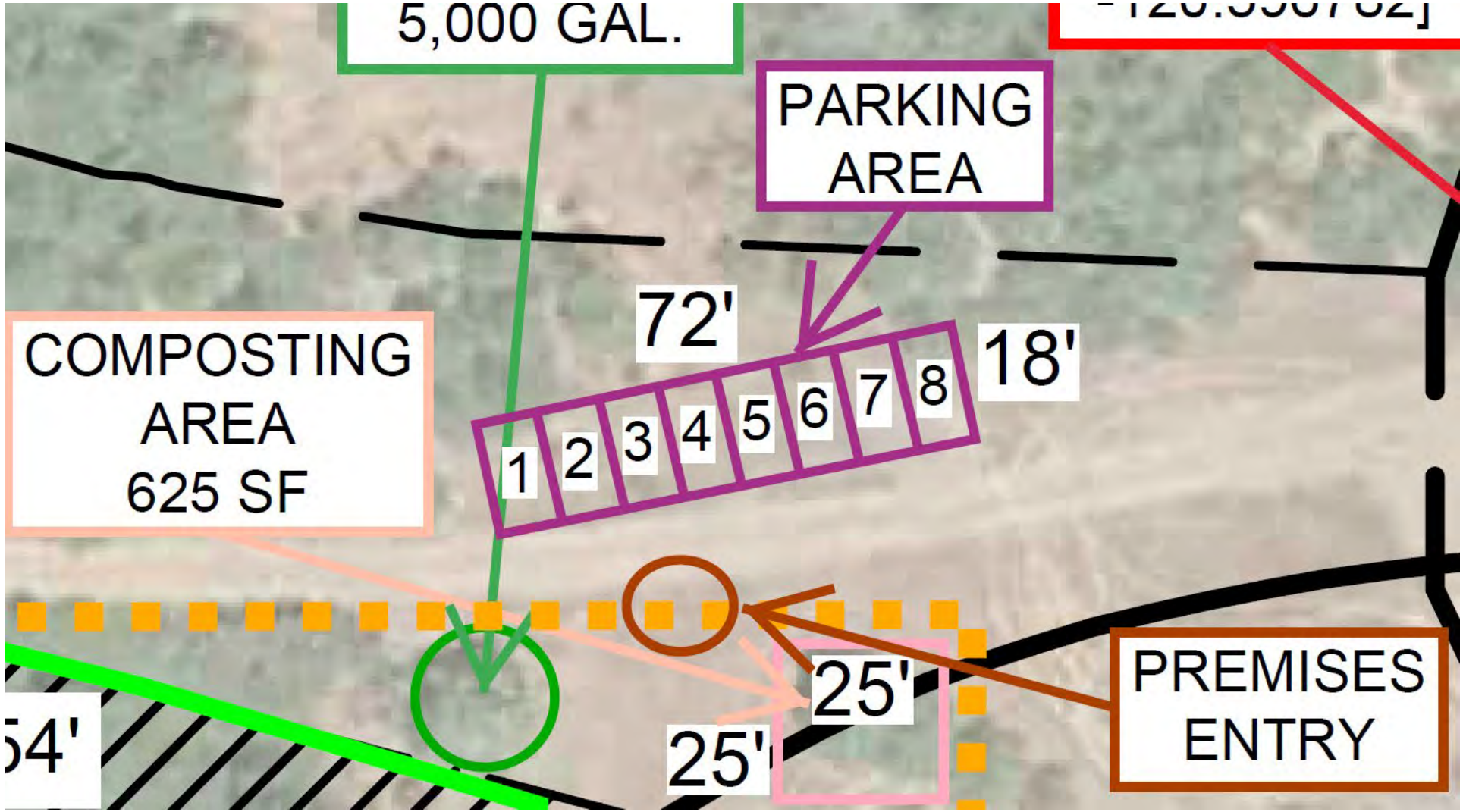
Lakes

USGS Section Lines

Soils

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

Parking Diagram



Commercial Cannabis Use Permit /

Applicant Forms

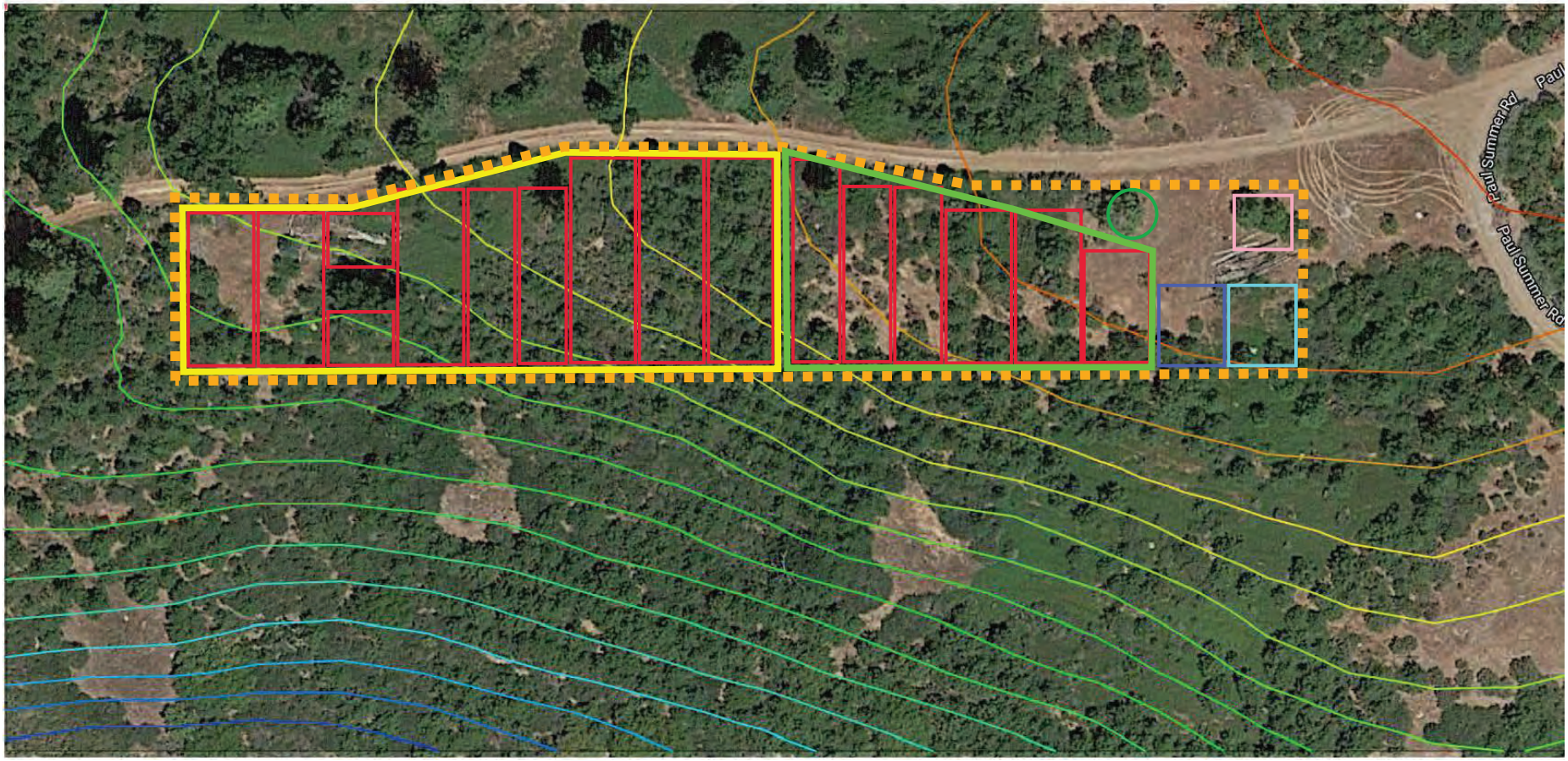
Canopy Lighting Energy Table					
Room	Canopy SF	Light Qty.	Watts / Light	Total Watts	Watts / SF
F-1	1680	16	600	9,600	5.7
F-2	1440	14	600	8,400	5.8
F-3	1440	14	600	8,400	5.8
F-4	1800	18	600	10,800	6.0
F-5	1800	18	600	10,800	6.0
F-6	1440	15	600	9,000	6.3
Total / Avg.	**9,600**	**95**	**600**	**57,000**	**5.9**

LEGEND / KEY

= 600 WATT LED GROW LIGHT

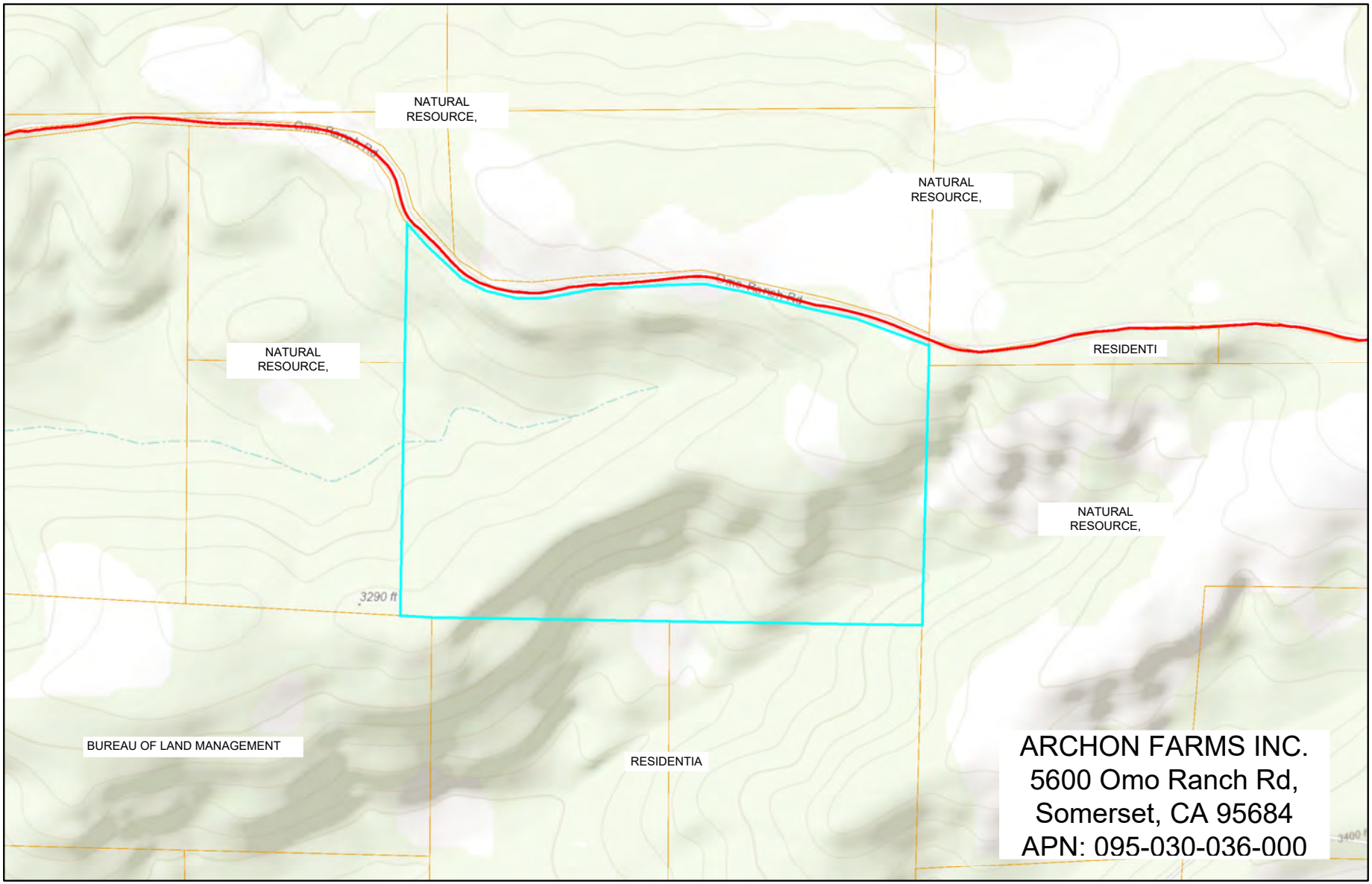
Commercial Cannabis Use Permit / Archon Farms

Preliminary Grading Plan / Contour Map



3286 ft 3291 ft 3296 ft 3301 ft 3306 ft 3311 ft 3316 ft 3321 ft 3326 ft 3331 ft 3336 ft 3341 ft 3346 ft 3351 ft 3356 ft 3361 ft 3366 ft 3371 ft

Footprint of each greenhouse structure (shown in red) and processing structures (shown in blue and cyan) to be lightly graded so that slope is made uniform -- not necessarily level. Cuts limited under four (4) feet. Fill limited under three (3) feet. Exempt from Grading Permit per CC 110.14.



November 7, 2021

Adjacent Property Use Map - 5600 Omo Ranch Rd

Search Results: Parcels

Override 1

County Outline

Highway Labels

Highways

Major Roads

Major Roads

Minor Roads

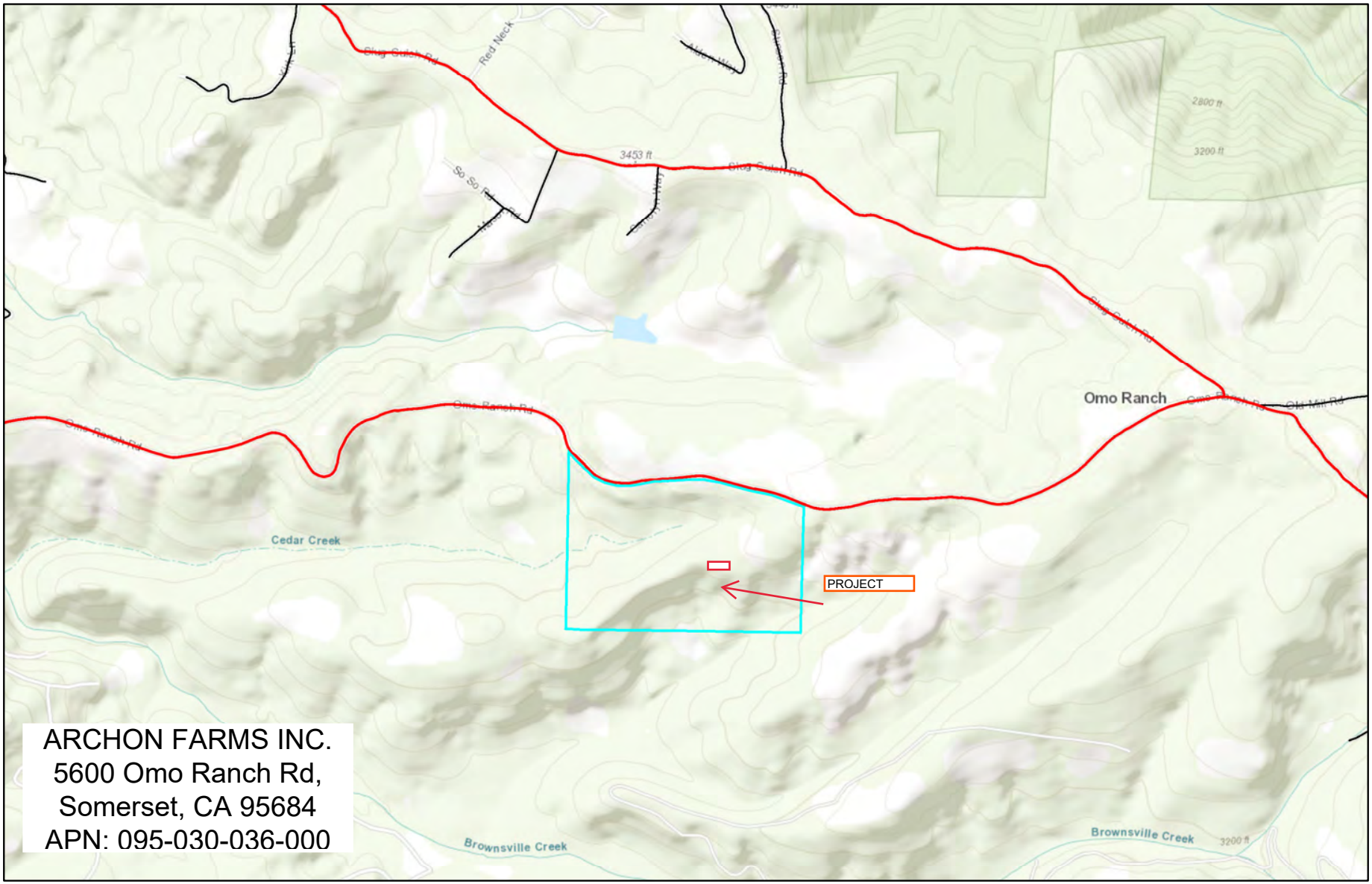
Cities

Parcels

Sources: Esri, HERE, Garmin, Intermap, incremer ;S, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL,

N W E S

0 250 500 750 1,000 Feet



November 7, 2021

Vicinity Map - 5600 Omo Ranch Rd

Search Results: Parcels

Override 1

County Outline

Highway Labels

Highways

Major Roads

Major Roads

Minor Roads

Cities

Sources: Esri, HERE, Garmin, Intermap, incremer ;S, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL,

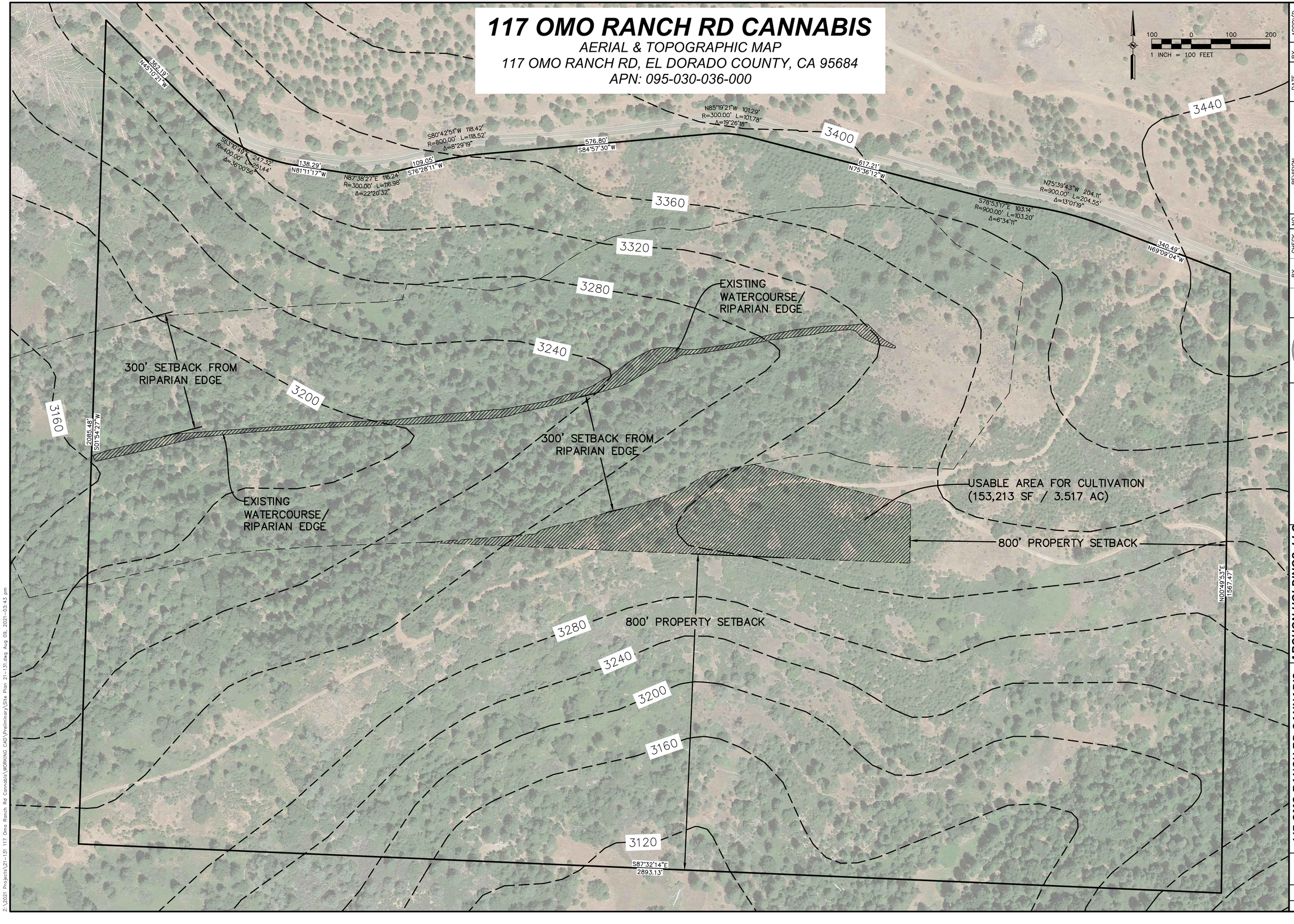
0 570 1,140 1,710 2,280 Feet

117 OMO RANCH RD CANNABIS

AERIAL & TOPOGRAPHIC MAP

117 OMO RANCH RD, EL DORADO COUNTY, CA 95684

APN: 095-030-036-000



NOT FOR CONSTRUCTION

	BY	DATE	APPRVD
REVISION			
NO.			
CHECK			
DESIGN			
DRAWN			
QUANT.			

ORIGINAL SCALE IS IN INCHES 0 1 2

REGISTERED PROFESSIONAL ENGINEER ROBERT F. EYRAUD No. C040666 Exp. 3-31-21 CIVIL STATE OF CALIFORNIA

RFE ENGINEERING, INC
Civil Engineers • Planners • Surveyors
2260 Douglas Blvd, Suite 160, Roseville, CA 95661
Ph: 916-772-7800 Fax: 916-772-7804
www.RFEengineering.com

ARCHON HOLDINGS, LLC
701 12TH STREET
SACRAMENTO, CA 95814
CONTACT: KEVIN MCCARTY
PH: (775) 240-3055

117 OMO RANCH RD CANNABIS
117 OMO RANCH RD
EL DORADO COUNTY, CA 95684
APN: 095-030-036-000

AERIAL & TOPOGRAPHIC MAP

Sheet
C1
1 of 1
08/09/2021

RFE PROJECT 21-131 – 117 OMO RANCH RD CANNABIS; 117 OMO RANCH RD, EL DORADO COUNTY, CA 95684

Z:\2021 Projects\21-131 117 Omo Ranch Rd Cannabis\WORKING CAD\Preliminary\Site Plan 21-131.dwg Aug 09, 2021 - 03:43 pm