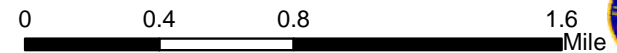
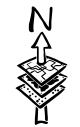
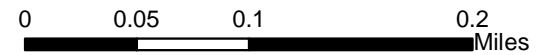


CCUP20-0003/Kilzer
Vicinity Map
Exhibit A





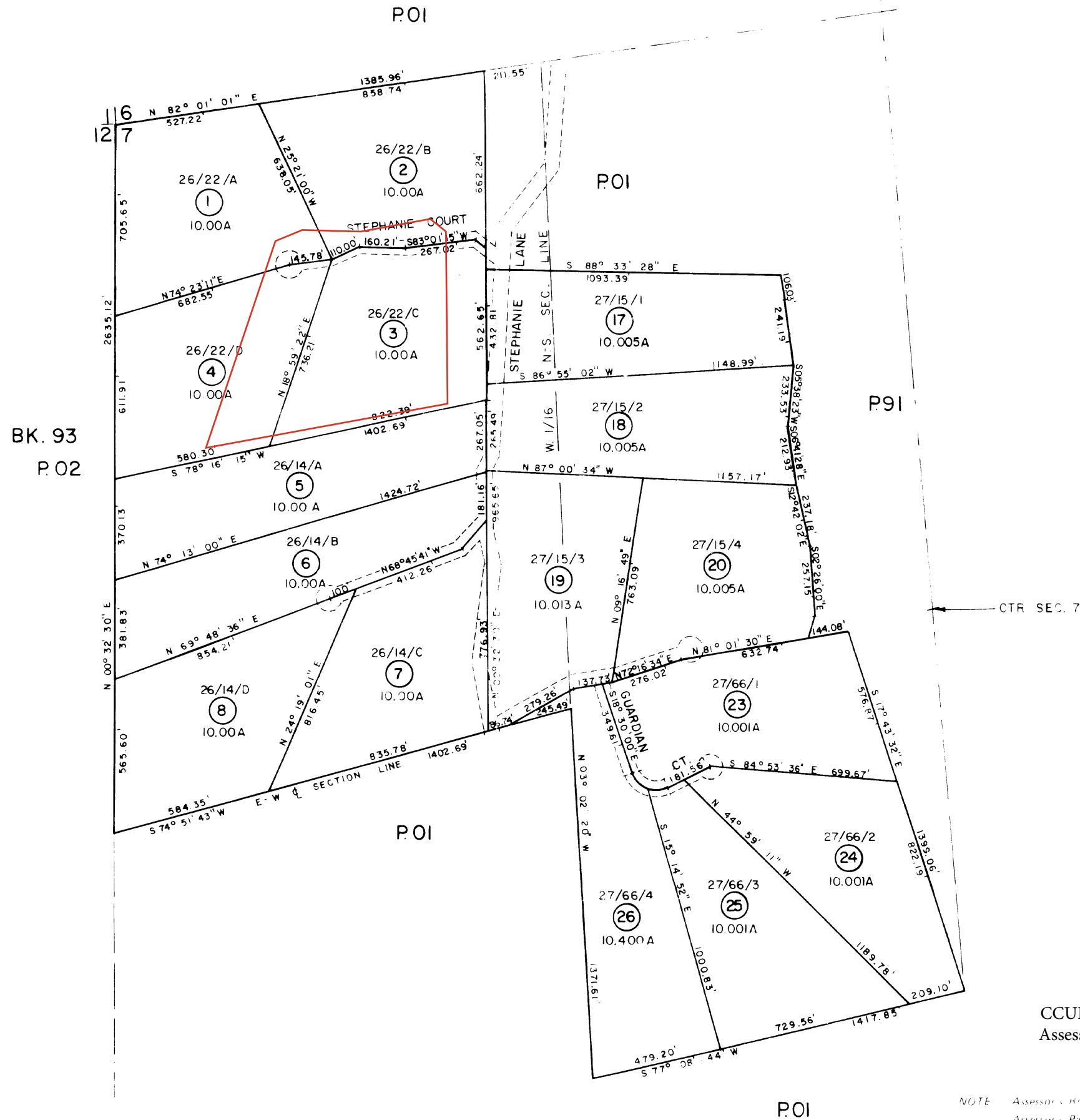
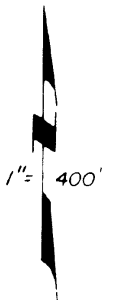
CCUP20-0003/Kilzer
Aerial Map
Exhibit B



POR. N.W. 1/4 SEC. 7 T.9 N.R.13 E. M.D.M.

Tax Area Code

41:90

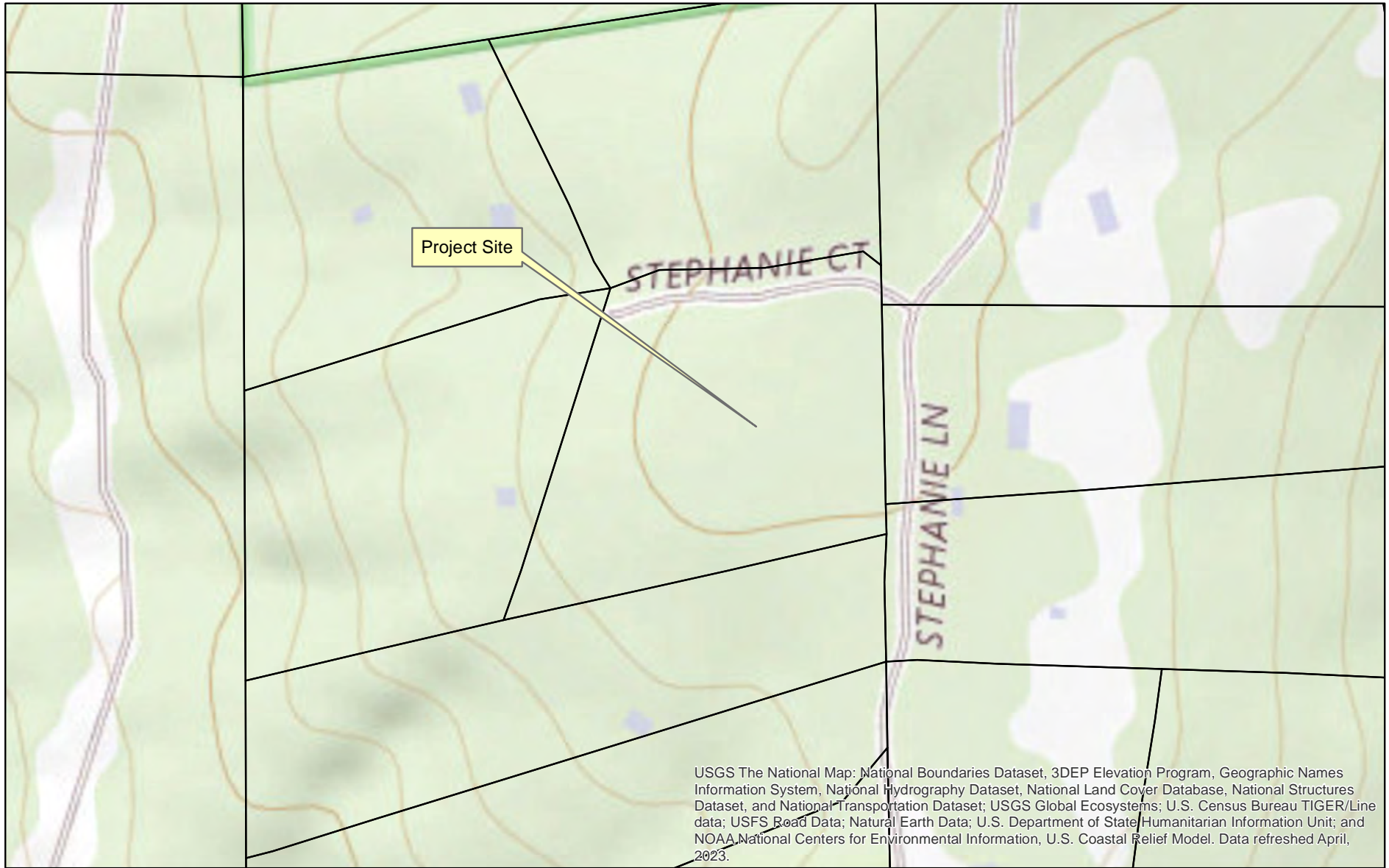


CCUP20-0003/Kilzer Assessor's Parcel Map Exhibit C

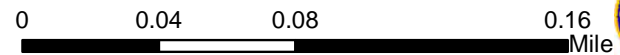
NOTE: Assessor's Block Numbers Shown in Circles, Assessor's Parcel Numbers Shown in Dashes.

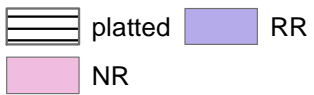
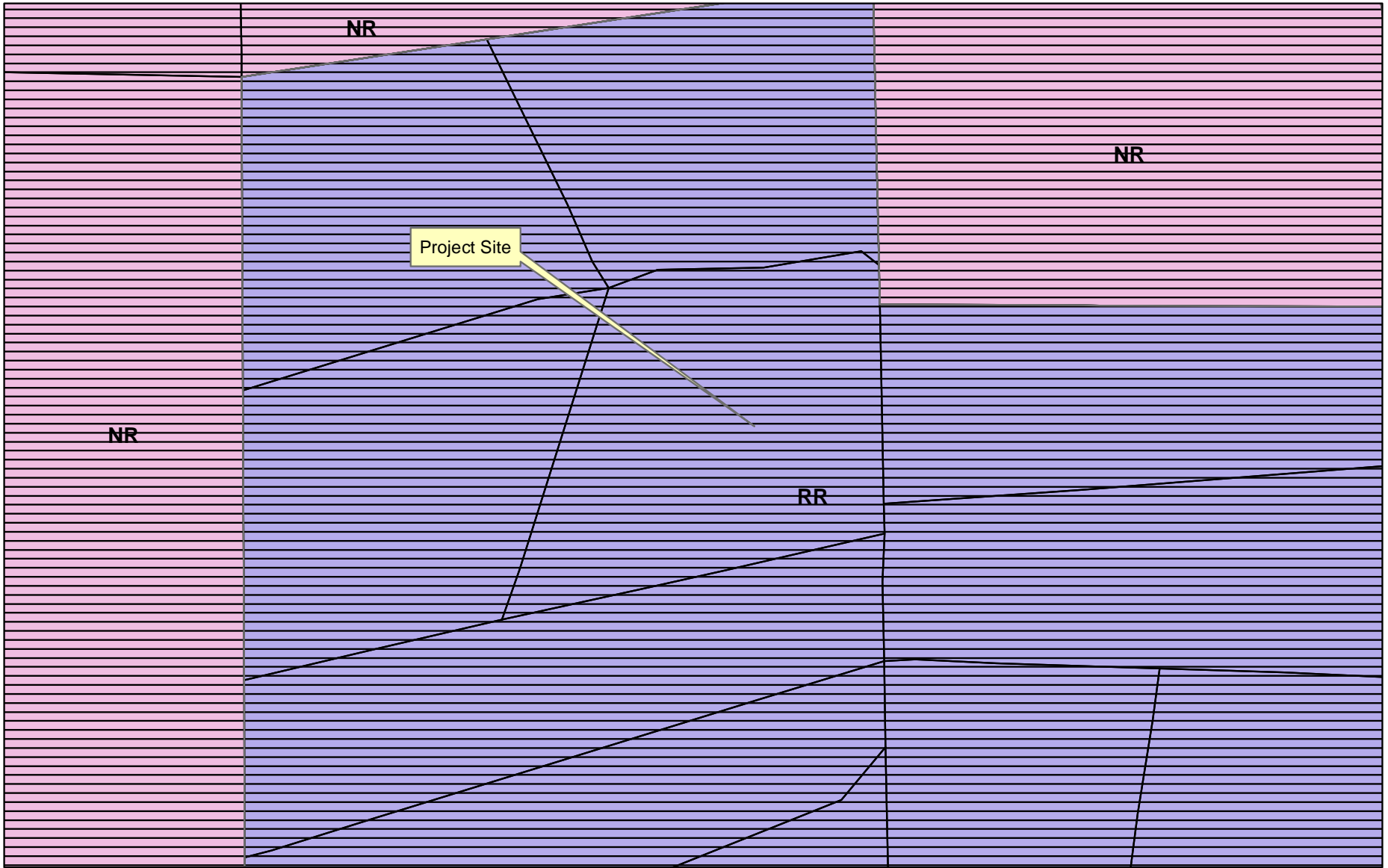
Assessor's Map BK 41 Pg 90 County of El Dorado, California

04-14-2003

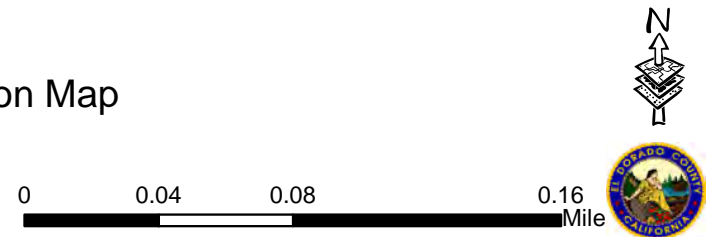


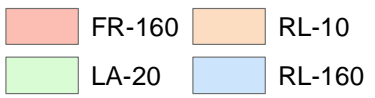
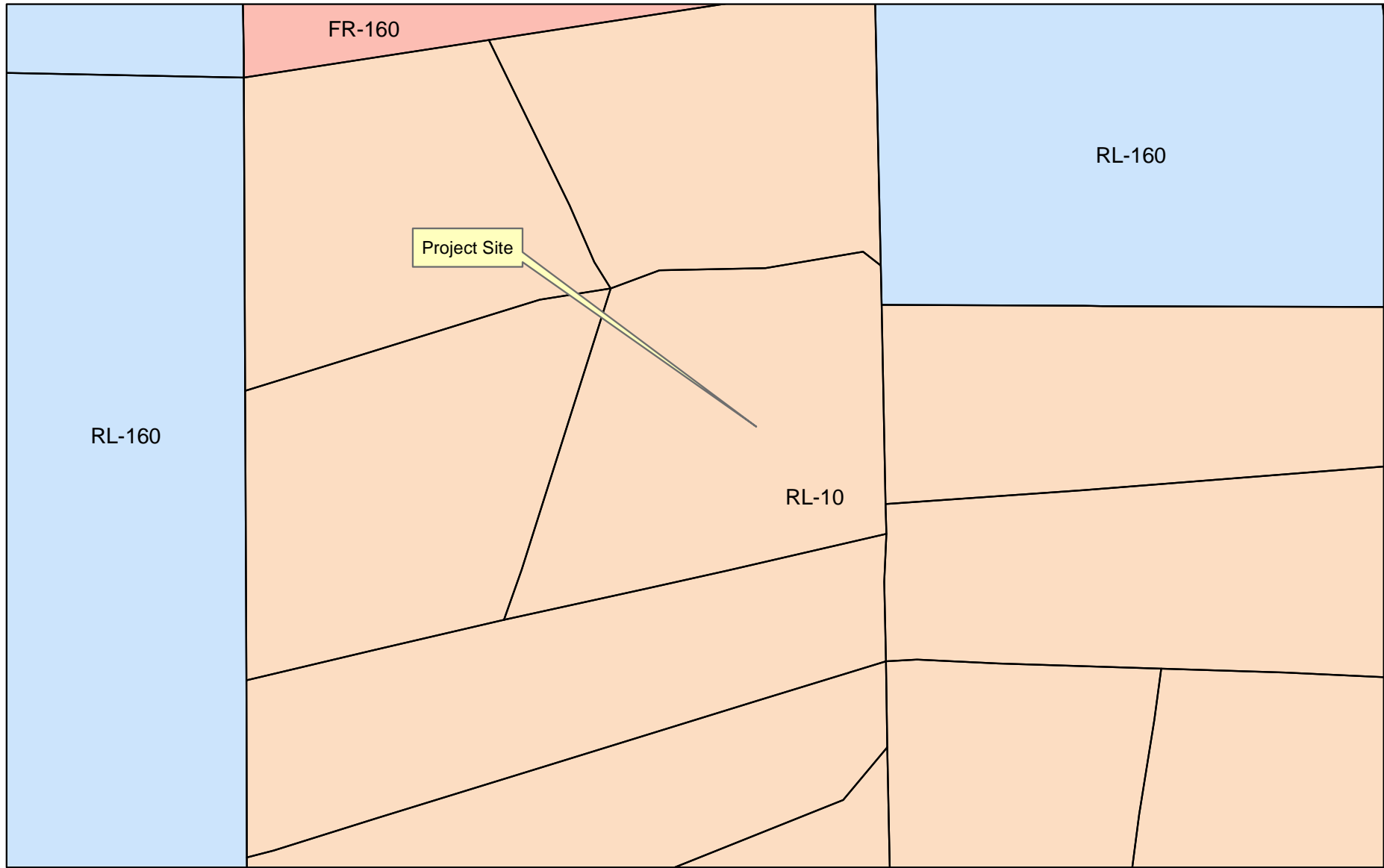
CCUP20-0003/Kilzer
Topography Map
Exhibit D



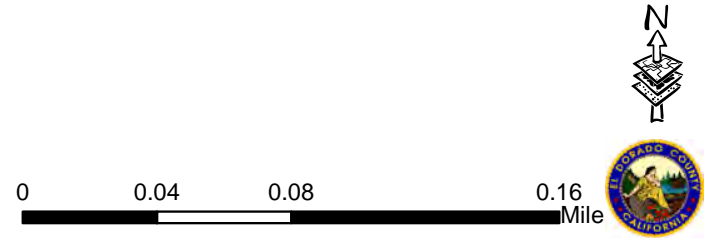


CCUP20-0003/Kilzer
 General Plan Land Use Designation Map
 Exhibit E



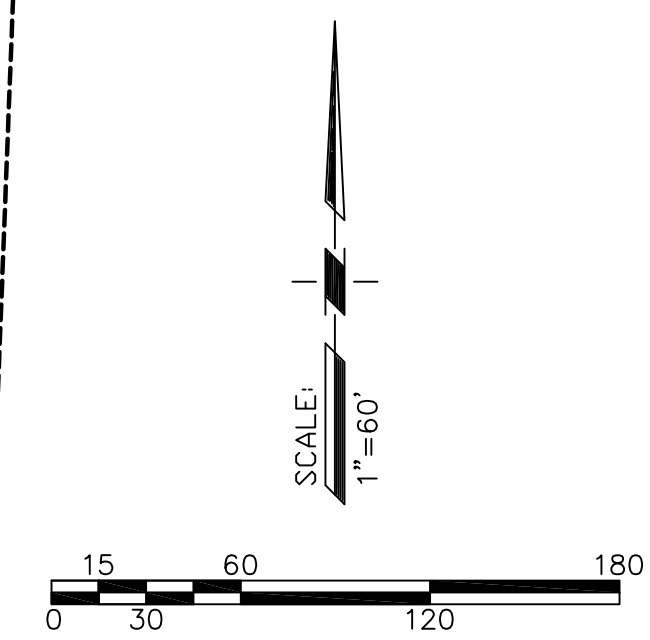
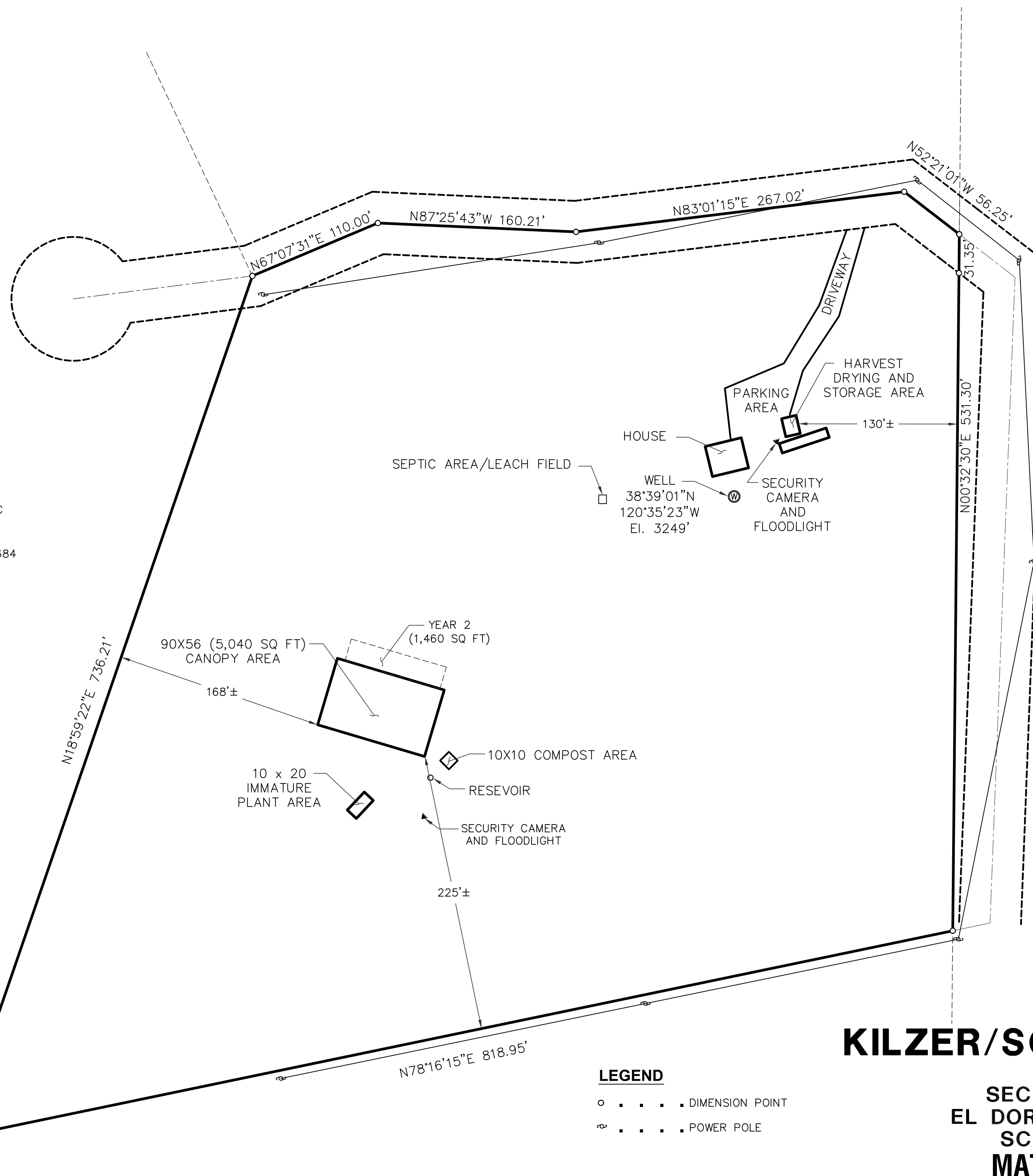


CCUP20-0003/Kilzer
Zoning Designation Map
Exhibit F



STATISTICS

APPLICANT: GRAHAM KILZER/SOMERSET RIDGE, LLC
 OWNER: SUSAN B. KILZER AND ADAM COLLINS
 ADDRESS: 5840 STEPHANIE CT, SOMERSET CA 95684
 APN: 041-900-003
 AREA: 10.00± ACRES
 PHONE: 530-721-3346
 E-MAIL: grahamk4646@gmail.com



- LEGEND**
- DIMENSION POINT
 - ⊙ POWER POLE

SITE PLAN
KILZER/SOMERSET RIDGE, LLC
 A PORTION OF
 SECTION 7, T9N, R13E, MDM
 EL DORADO COUNTY, CALIFORNIA
 SCALE: 1"=60' JUNE, 2021
MATHIS LAND SURVEYING
 COOL CALIFORNIA
 916-768-8984



DRAFT TECHNICAL MEMORANDUM

To: Graham Kilzer
Kilzer / Somerset Ridge, LLC

Date: February 18, 2022

From: Ray Kapahi *RK*
Tel: 916-687-8352
Tel: 916-687-8352
E-Mail: ray.kapahi@gmail.com

Subject: Revised Analysis of Odor at the Proposed Outdoor Cannabis Cultivation Located in Somerset (El Dorado County), California

INTRODUCTION AND SUMMARY

Environmental Permitting Specialists (EPS) has completed its review of potential odors at your proposed outdoor cannabis cultivation site in Somerset. It is our understanding the outdoor cultivation site would be located at 5840 Stephanie Court in Somerset. See Figure 1 for vicinity map.

The maximum area for cultivation will be 5,040 square feet in year 1 of operation. In year 2, an additional 1,460 square feet of outdoor cultivation would be added at an adjacent parcel. The total cultivation area would equal 6,500 square feet. The cultivation area would be located between 225 feet and 412 feet from the nearest property lines. A site map showing the cultivation area and distances to the property lines is shown in Figure 2.

EPS used an air dispersion model, 1 year (2019) of hourly wind and temperature data at Somerset and on-site measurements of odor intensity at other locations to conduct this analysis. Data from 4 other outdoor cannabis and hemp cultivation facilities and one Tedlar bag sample were reviewed as part of the current analysis. Odor measurements taken at 0.75 acre outdoor cultivation site in Yolo County were used as baseline odors to predict odors at the Kilzer/Somerset Ridge property lines.

The results of our analysis indicate that maximum odor intensity along the property lines would range from 2.56 DT along the Easter property line to 5.66 DT along the Western property line. Since there is a potential for odor intensity is below El Dorado County’s limit of 7 DT, no odor mitigation is required.

This Technical Memorandum presents the methodology, data and assumptions used in this analysis. These are described in detail below.

SCOPE AND METHODOLOGY OF ODOR ANALYSIS

The overall methodology used in this analysis is to use an atmospheric dispersion model to predict the dilution of odors as they migrate away from the outdoor cultivation area. By calculating the relative concentration of odors adjacent to the cultivation area and at the property line(s), we can determine the dilution ratio defined as odor concentration at the cultivation area divided by concentration at the property line(s).

For example, if the maximum concentration at the cultivation area is 5,000 micrograms per cubic meter (ug/m3) and the relative concentration at the property line 2,000 ug/m3, the dilution ratio or dilution factor would equal:

$$\text{Dilution Ratio / Dilution Factor} = \frac{5,000 \text{ ug/m}^3}{2,000 \text{ ug/m}^3} = 2.5$$

In other words, the odors would be dilution by a factor of 2.5 as they migrate from the cultivation area towards the property line.

The dilution factor is used along with measurements at other outdoor cannabis cultivation sites to predict odor intensity at the Kilzer / Somerset Ridge property lines. This methodology was reviewed the staff at El Dorado County Air Quality Management District (AQMD) to confirm that this approach would be acceptable. The District agreed with this approach as noted in their August 28, 2020 letter to Aaron Mount at El Dorado County Planning.

Modeling Methodology

We used the EPA and AQMD recommended AERMOD dispersion model (Version 2112) along with one year (2019) of hourly wind data for Somerset. The data (known as MM5) is derived from weather satellites to calculation winds and other parameters for all locations in the continental US. The data used was prepared by Lakes Environmental (Waterloo, Canada)¹.

¹ Lakes Environmental. Waterloo, Canada. Information on the development of local wind data based on the MM5 for Somerset can be found at: https://www.weblakes.com/services/met_data.html#aermetmm5

The cultivation areas were modeled as a single ground based area sources. Concentration were calculated using a 5 meter grid using an emission rate of 1.00×10^{-4} grams/sec-square meter for each source. See Figure 3.

The model results are concentrations in terms of micrograms per cubic meter at each grid location averaged over 1-hour. These concentrations are meaningful only in a relative sense to help establish the dilution pattern. It is recognized that the averaging time for odors is a few minutes, not 1 hour. Typically, peak concentrations over a few minutes are many times greater than those over 1 hour. However, the ratio of concentrations and the dilution factor will remain the same whether averaged over a few minutes or 1 hour averaging time.

Finally, we note that the maximum predicted concentration varies with both the distance and the direction from the cultivation site. Generally, the concentration decreases with distance from the cultivation site. Figures 4 and 5 illustrate the spatial distribution of 1-hour relative concentration. These figures show that higher relative concentration occur towards the South and Southeast.

Baseline Odor Used in the Analysis

We used odor measurements taken at a Yolo County outdoor cannabis site. This outdoor site covers 0.75 acres and is located at 22945 County Road 23, Esparto. At the time the measurements were taken, the plants were 2 weeks away from harvesting. Odor measurements were taken September 22, 2020 that indicated odor intensity of 15 DT. However, we noted that there were brief periods when odor intensity was above 15 but were not fully captures by the Nasal Ranger. We estimated the odor intensity to be closer to 20 DT and this is the value used in the current analysis. A complete documentation of the September 22nd odor survey is attached.

CALCULATION OF ODOR INTENSITY AND MODELING RESULTS

The calculation of odor intensity at the property lines is as follows:

$$\text{Odor Intensity at Property Line} = \frac{\text{Baseline Odor Intensity (DT)}}{\text{Dilution Factor}}$$

For example, the odor intensity at the Southern property line (Figure 7) would equal:

$$\frac{20 \text{ DT}}{3.70} = 5.66 \text{ DT}$$

The modeling results for the closest property lines are summarized on the next page and in Figure 8.

Location	Distance (ft)	Distance	Relative Concentration	Dilution Ratio	Fenceline DT
Southern Property Line	225	68.6	2623	4.60	4.35
NW Property Line	319	97.3	2333	5.17	3.87
Northern Property Line	383	116.8	3263	3.70	5.41
Western Property Line	168	51.2	3415	3.53	5.66
Eastern Property Line	412	125.6	1544	7.81	2.56
Max Concentration	12059				
Baseline DT	20				

These results demonstrate that the intensity of odors would remain below 7 DT. Therefore, the project would comply with requirements of the County's Cultivation Standard D of Ordinance 5110.

Once a permit has been issued and cannabis cultivation proceeds, EPS staff will be available to conduct odor monitoring at your property to confirm that odors do not exceed the County limit of 7 DT.

FIGURES

Figure 1: Vicinity Map (from Kilzer / Somerset Ridge, LLC)

Figure 2: Site Map (from Kilzer / Somerset Ridge, LLC)

Figure 3: Modeling Grid

Figure 4: Contours of Relative Concentrations

Figure 5: Contours of Relative Concentration (close-up)

Figure 6: Display of Numerical Concentration

Figure 7: Calculation of Dilution Factor

Figure 8: Summary of Results

Figure 1
Vicinity Map

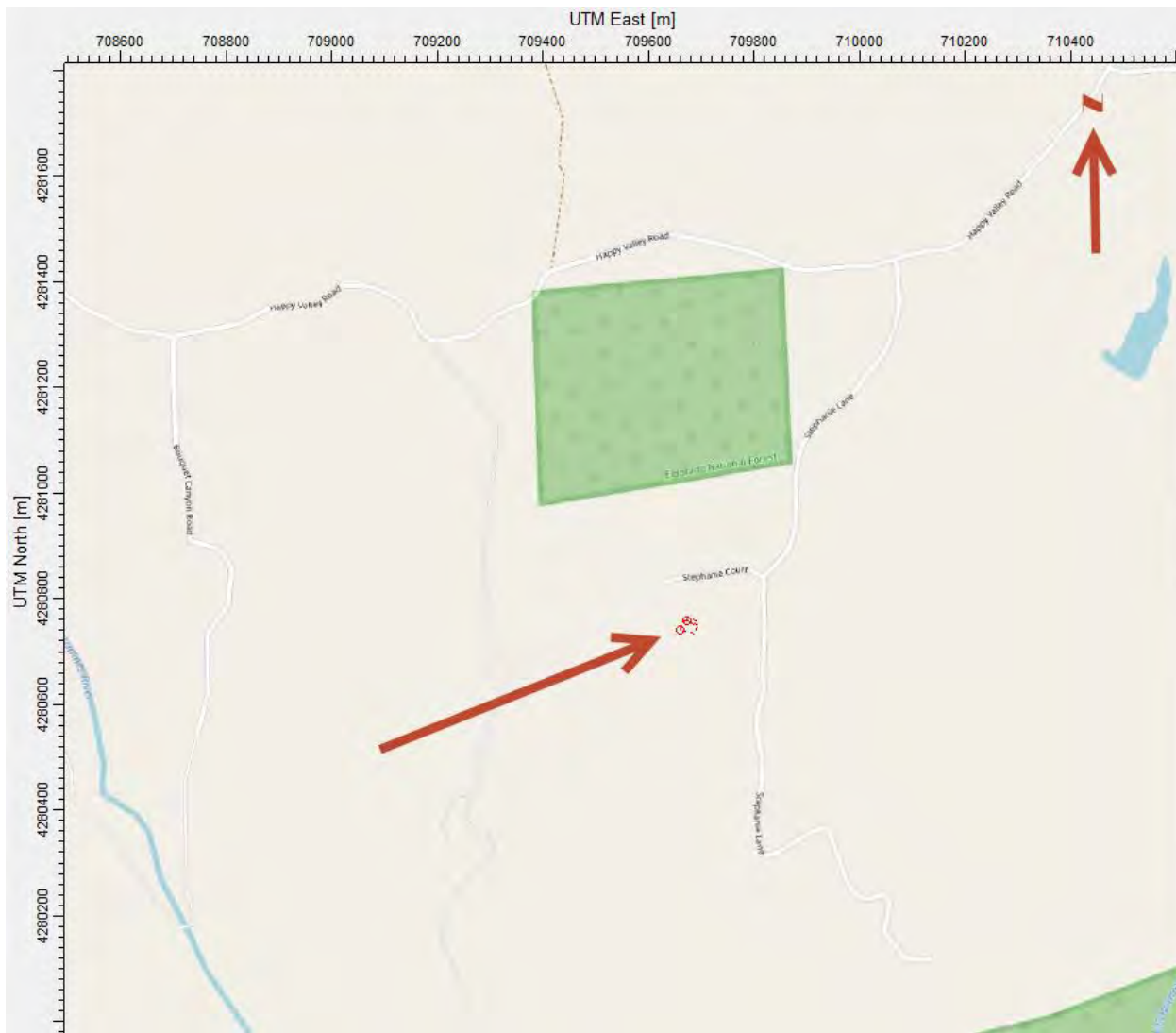


Figure 2

Site Map (from Kilzer / Somerset Ridge, LLC)

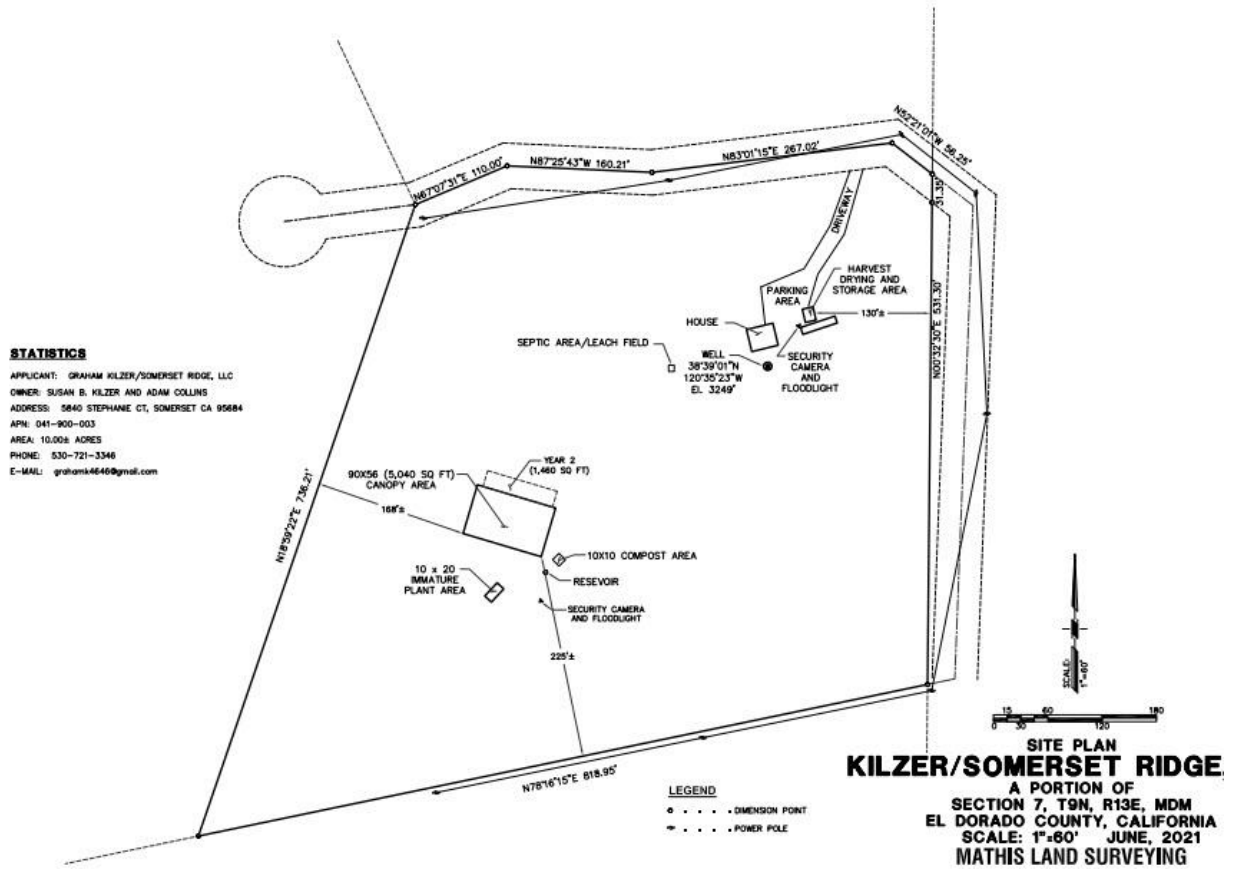


Figure 3

Modeling Grid

[Cultivation Areas Shown in Red]

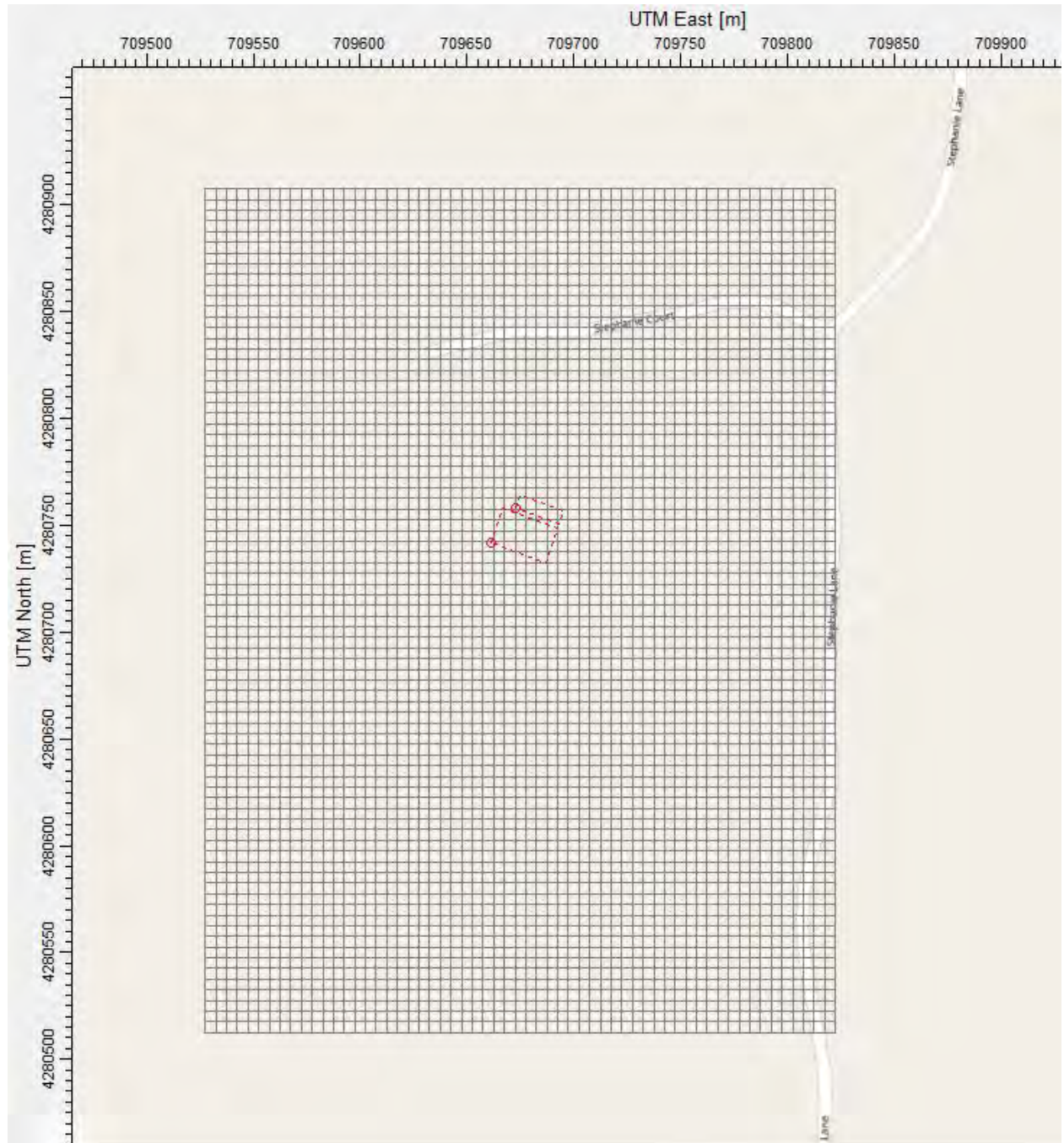


Figure 4

Contours of Relative 1-Hour Concentrations

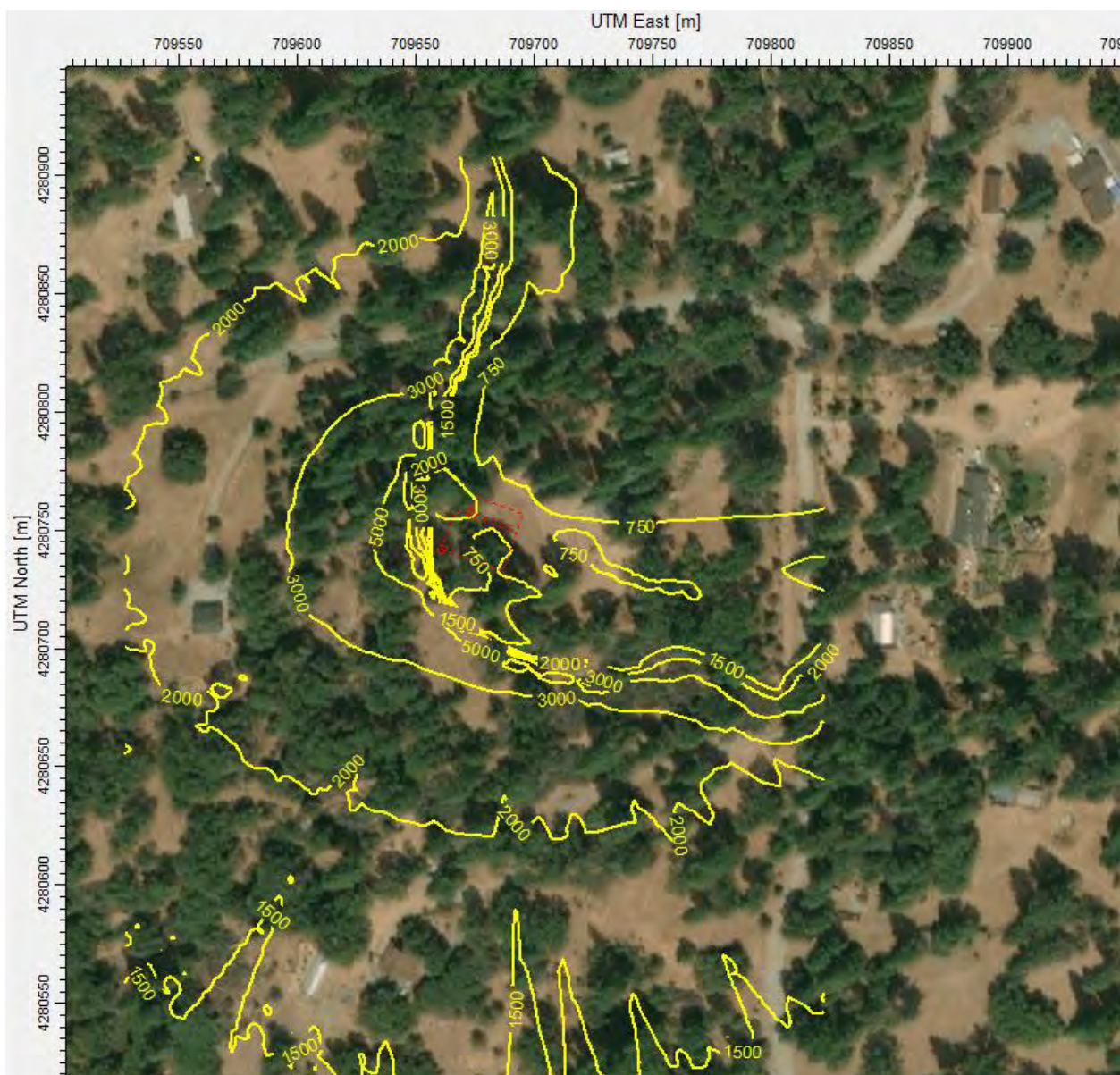


Figure 5

Contours of Relative Concentration (close-up)



Figure 6

Numerical Values of Relative Concentration

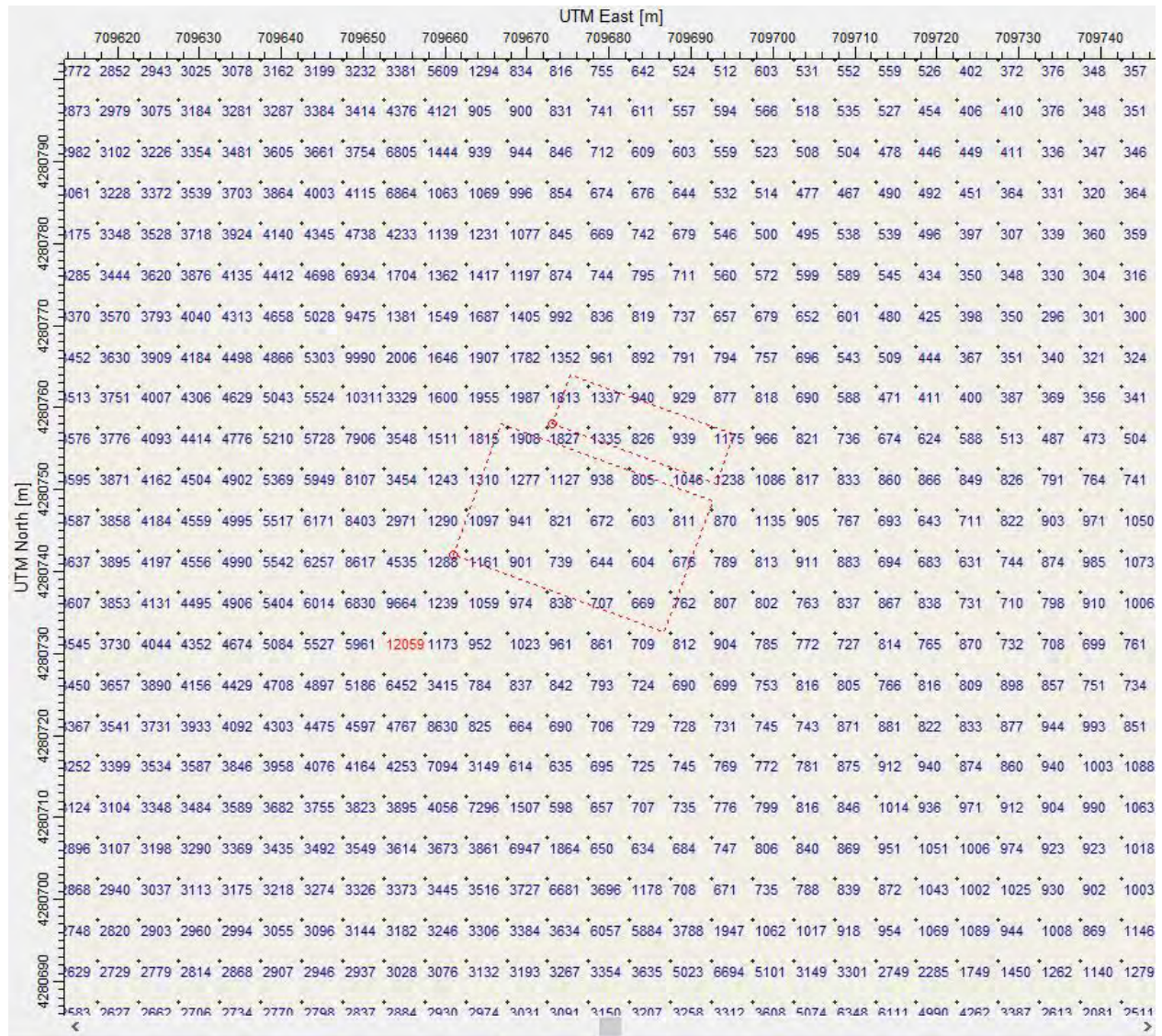


Figure 7

Sample Calculation of Dilution Factor at Western Property Line

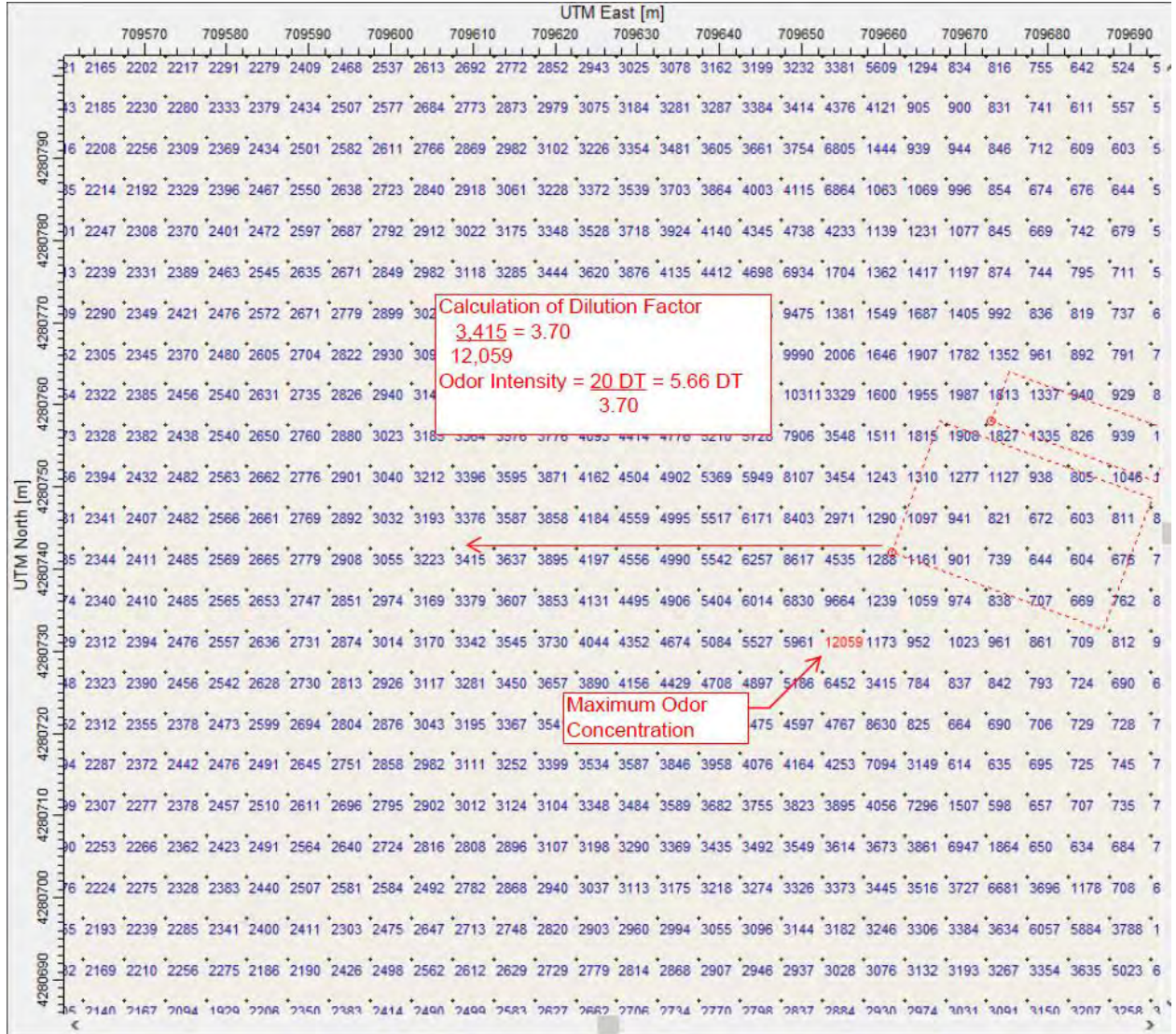
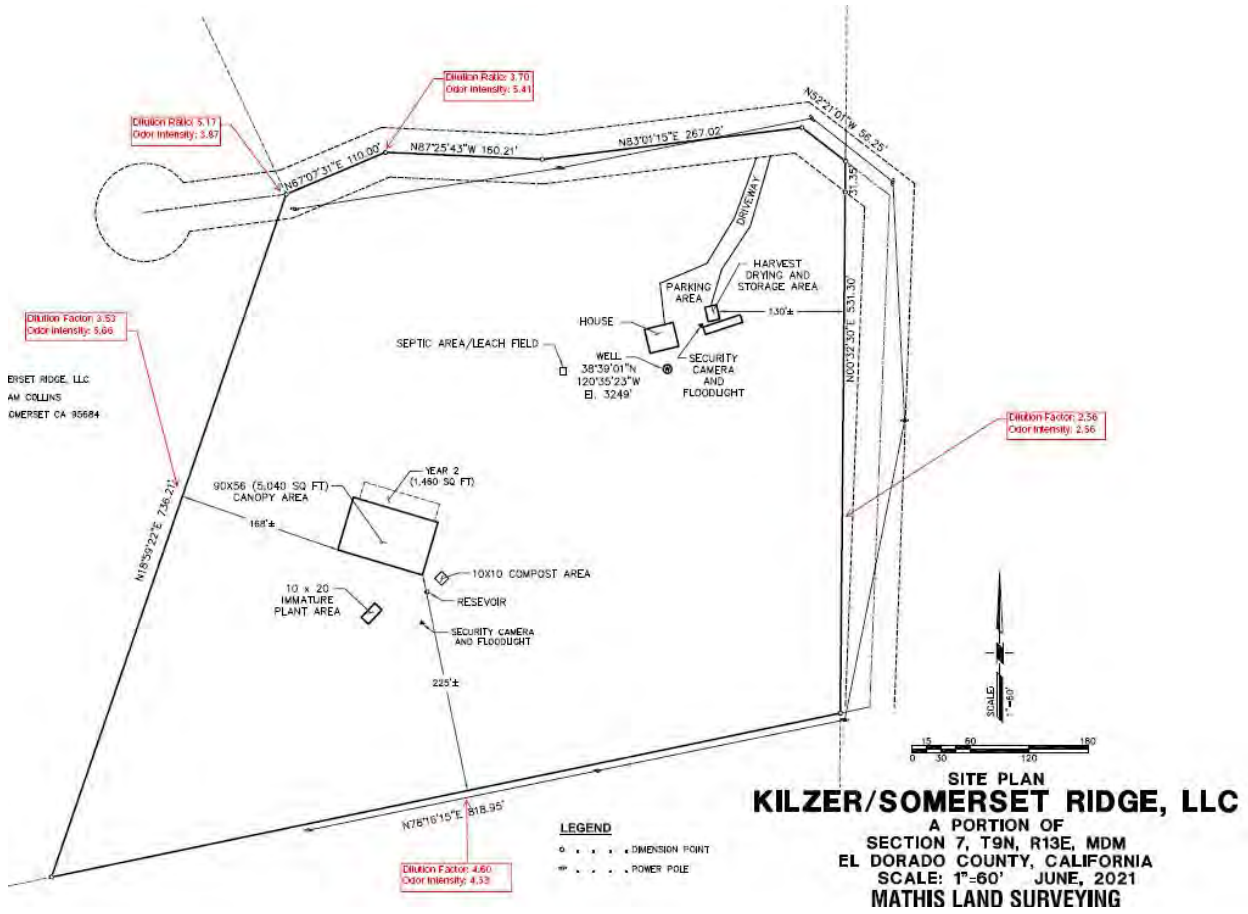


Figure 8
Summary of Results



ATTACHMENT

Yolo County Cannabis Site for Baseline Odor Measurements

September 22, 2020



COUNTY OF YOLO
CANNABIS TASK FORCE
120 W. Main Street, Suite C
Woodland, CA 95695
Telephone: (530) 406 4800

CULTIVATION LICENSE : PR0063595

LICENSE FOR CANNABIS CULTIVATION
NON-TRANSFERABLE

SUBJECT TO ALL CONDITIONS OF YOLO COUNTY CODE OF ORDINANCES TITLE 5, CHAPTER 20
THIS LICENSE MUST BE POSTED IN A CONSPICUOUS PLACE

CANNABIS CULTIVATION LICENSE

ISSUED TO:

CAPAY VALLEY INC

CONTACT:

CAPAY VALLEY INC
430 W CREEKSIDE CIR
DIXON, CA 95620

DATE OF ISSUE: 2/19/2020

DATE OF EXPIRATION: 12/31/2020

LOCATED AT:

22945 CR 23
ESPARTO, CA 95627
APN: 047-060-006

License Type: YEAR ROUND CULTIVATION LIC 1ST (1/4 ACRE)
Total Cultivation Area: 3/4 ACRE (32,670 sq ft)

General Conditions of approval of this Cannabis Cultivation License are listed below:

- Operations must comply with Yolo County's Ordinance on Marijuana Cultivation (Title 5, Chapter 20 of the Yolo County Code).
- This license supersedes Business License #12343 and is issued for cultivation only.
- Use of utilities and structures must be fully permitted under local authority.
- Licensee must maintain compliance with applicable requirements of the State Water Resources Control Board.
- Licensee must obtain and maintain in good standing a State license for cannabis cultivation.
- Licensees shall not commingle product with other cultivators or transfer marijuana to other cultivation sites, including a collocated site.
- This license constitutes a revocable privilege. Licensees have the burden of proving qualifications for a license at all times.
- Licensee shall permit Yolo County Staff the entry and inspection of all areas of the cultivation site.

Special Conditions:

Licensee must communicate to anyone coming on-site, including employees and contract labor, verbally and in writing through signage, that safe driving practices while traveling to and from the site must be followed. Verified complaints on reckless driving may result in the issuance of a Notice of Violation.

Susan Strachan
Cannabis Policy and Enforcement Manager

Under federal and state law, compliance with disability access laws is a serious and significant responsibility that applies to all California building owners and tenants with buildings open to the public. You may obtain information about your legal obligations and how to comply with disability access laws at the following agencies: The Division of the State Architect at dgs.ca.gov/dsa/Home.aspx, The Department of Rehabilitation at rehab.ca.gov/unet.gov, and The California Commission on Disability Access at ccda.ca.gov.

Yolo County Dept. of Community Services Code Enforcement Unit 120 W. Main St. Ste. C Woodland, CA 95695 (530) 406-4800





Odor Measurements

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Date	Time	Wind Speed	Wind Direction	Temp	Relative Humidity	Nasal Ranger Reading								
2	9/22/2020	9:45	(MPH)	(Dir From)	(F)	(%)	60	30	15	7	4	2	<2	ND	
3															
4	9/22/2020	9:55	INOP	INOP	79.1	55.6					X				
5	9/22/2020	9:58	INOP	INOP	79.5	54.6							X		
6	9/22/2020	10:00	INOP	INOP	81.3	52.4						X			
7	9/22/2020	10:10	INOP	INOP	80	47.6					X				
8	9/22/2020	10:12	INOP	INOP	78.8	48.7				X					
9	9/22/2020	10:15	INOP	INOP	81.3	45.9						X			
10	9/22/2020	10:16	INOP	INOP	81.3	44.8							X		
11	9/22/2020	10:17	INOP	INOP	81.4	43.5								X	
12	9/22/2020	10:18	INOP	INOP	81.4	42.9						X			
13															
14															
15															

Excerpts of Weather Data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
1	Location	22945 County Road 23, Esparto California																
2	Device Name	Kestrel 5500																
3	Device Model	KESTREL_5500L																
4	Serial Number	2486926																
5	DRMATTED DATE_TIM	Altitude	Dew Point	Density	Altitude	Wind Chill	Direction - True	Headwind	Heat Stress Index	Crosswind	Wind Speed	Relative Humidity	Direction - Mag	Psychro	Wet Bulb Temperature	Station Pressure	Temperature	Barometric Pressur
6	YYY-MM-DD HH:MM:S	ft	°F	ft	°F	°	mph	°F		mph	mph	%	°	°F	inHg	°F	inHg	
7	9/22/2020 10:15	291	65	2,057	82.8	***	***	84.9	***	0	55	***	70.5	29.69	82.8	29.69		
8	9/22/2020 10:15	291	65.2	2,067	82.9	***	***	85.3	***	0	55.2	***	70.7	29.69	82.9	29.69		
9	9/22/2020 10:15	291	65.4	2,080	82.9	***	***	85.3	***	0.9	55.2	***	70.7	29.69	83.1	29.69		
10	9/22/2020 10:15	295	65.4	2,090	83.1	***	***	85.6	***	0	55	***	70.9	29.69	83.2	29.68		
11	9/22/2020 10:15	291	65.6	2,095	83.3	***	***	86	***	0	55.4	***	71.1	29.69	83.3	29.68		
12	9/22/2020 10:15	295	65.6	2,092	83.1	***	***	85.6	***	0	55.6	***	71.1	29.68	83.1	29.68		
13	9/22/2020 10:16	295	64.5	2,040	82.4	***	***	84	***	0	54.6	***	70.2	29.69	82.5	29.68		
14	9/22/2020 10:16	296	62.8	1,988	81.9	***	***	82.8	***	0	52.4	***	68.9	29.68	81.9	29.68		
15	9/22/2020 10:16	296	61.3	1,963	81.7	***	***	82.2	***	0	50.1	***	68	29.68	81.7	29.68		
16	9/22/2020 10:16	296	60.2	1,951	81.5	***	***	81.3	***	0	48.3	***	67.3	29.68	81.6	29.68		
17	9/22/2020 10:16	296	59.4	1,928	81.3	***	***	81	***	0	47.4	***	66.9	29.68	81.4	29.68		
18	9/22/2020 10:16	296	58.9	1,894	80.8	***	***	80.4	***	0	47.3	***	66.6	29.68	80.9	29.68		
19	9/22/2020 10:16	295	58.4	1,837	79.9	***	***	79.3	***	0	47.6	***	65.8	29.68	80	29.68		
20	9/22/2020 10:16	295	57.8	1,771	79	***	***	78.1	***	0	48.2	***	65.3	29.68	79.1	29.68		
21	9/22/2020 10:16	296	57.8	1,753	78.6	***	***	77.9	***	0	48.7	***	65.1	29.68	78.8	29.68		
22	9/22/2020 10:16	295	57.8	1,739	78.4	***	***	77.7	***	0	49	***	65.1	29.69	78.6	29.68		
23	9/22/2020 10:16	291	58	1,746	78.6	***	***	77.9	***	0	49	***	65.1	29.69	78.7	29.68		
24	9/22/2020 10:16	291	58.2	1,773	79	***	***	78.3	***	0	48.8	***	65.5	29.69	79.1	29.68		
25	9/22/2020 10:16	291	58.4	1,798	79.5	***	***	79	***	0	48.5	***	65.7	29.69	79.5	29.69		
26	9/22/2020 10:16	291	58.6	1,825	79.9	***	***	79.3	***	0	48.2	***	66	29.69	80	29.69		
27	9/22/2020 10:16	288	58.8	1,852	80.2	***	***	79.7	***	0	47.9	***	66.2	29.69	80.3	29.69		
28	9/22/2020 10:16	291	59	1,874	80.6	***	***	80.2	***	0	47.7	***	66.4	29.69	80.7	29.68		
29	9/22/2020 10:16	295	59.2	1,891	80.8	***	***	80.4	***	0	47.7	***	66.6	29.69	80.9	29.68		
30	9/22/2020 10:16	288	59.3	1,899	81	***	***	80.8	***	0	47.7	***	66.7	29.69	81.1	29.69		
31	9/22/2020 10:16	253	59.5	1,867	81.1	***	***	81	***	0	47.8	***	66.9	29.73	81.2	29.73		
32	9/22/2020 10:16	310	59.6	1,946	81.3	***	***	81.1	***	0	47.7	***	66.9	29.67	81.3	29.67		
33	9/22/2020 12:15	321	59.6	1,963	81.3	***	***	81.1	***	0	47.6	***	66.9	29.66	81.4	29.65		
34	9/22/2020 12:15	81	59.1	1,662	81.3	***	***	81	***	0	46.8	***	66.7	29.91	81.4	29.91		
35	9/22/2020 12:15	56	58.4	1,625	81.3	***	***	80.6	***	0	45.7	***	66.4	29.94	81.4	29.94		

130.41.100.4.F.13 The security plan for the operation that includes adequate lighting, security video cameras with a minimum camera resolution of 1080 pixels and 360 degree coverage, alarm systems, and secure area for cannabis storage. The security plan shall include a requirement that there be at least 90 calendar days of surveillance video (that captures both inside and outside images) stored on an ongoing basis and made available to the County upon request. The County may require real-time access of the surveillance video for the Sheriff's Office. The video system for the security cameras must be located in a locked, tamper-proof compartment. ***The security plan shall remain confidential.***

Supplemental Info

Water Source Documentation- DWR Well Completion Report and Water Well Driller's Report - See Following Attachments

CCUP20-0003/Kilzer
Well Completion Report
Exhibit J

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 308223

Office of Intent No. _____
Local Permit No. or Date 12/2/86

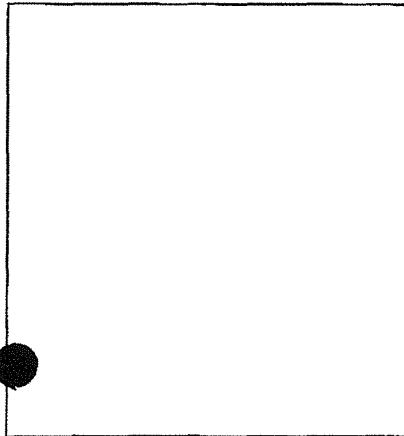
State Well No. _____
Other Well No. 09N13E07D

(12) WELL LOG: Total depth 400' ft. Completed depth 400' ft.
from ft to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):

County 09 Owner's Well Number 1
Well address if different from above Happy Valley, Somerset, Ca.
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____
Parcel # 41-900-03

0' - 30' Decomposed Granite
30' - 40' Hard Gray Granite
40' - 180' Hard Gray Granite
180' - 265' Blue Green Granite
265' - 268' First water fracture - 5 GPM
268' - 400' Hard Blue Granite - no fracture



WELL LOCATION SKETCH

(3) TYPE OF WORK:

- New Well Deepening
- Reconstruction
- Reconditioning
- Horizontal Well
- Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

- Domestic
- Irrigation
- Industrial
- Test Well
- Municipal
- Other (Describe)

Actual water production depends upon hydrological conditions beyond the control of Contractor, and which are subject to dramatic changes in short periods of time. Therefore, Contractor does not warrant the continued production of any quantity or quality of water observed or reported at any stage of or at the conclusion of the project.

(5) EQUIPMENT:

- Rotary Reverse
- Cable Air
- Other Bucket

(6) GRAVEL PACK:

- Yes No Size _____
- Diameter of bore _____
- Packed from _____ ft. to _____ ft.

(7) CASING INSTALLED:

- Steel Plastic Concrete

(8) PERFORATION:

Type of perforation or size of screen _____

From ft.	To ft.	Dia. in.	Cage or Wall	From ft.	To ft.	Slot size
0'	40'	6 5/8"		NONE		

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth 20' ft.
Were strata sealed against pollution? Yes No Interval _____ ft.
Method of sealing Concrete

Work started 12/2/86 19____ Completed 12/3/86 19____

(10) WATER LEVELS:

Depth of first water, if known 268' ft.
Standing level after well completion 80' ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:

FRED STINNETT WELL DRILLING CO.
Was well test made? Yes No If yes, by whom? DRILLING CO.
Type of test Pump Bailor Air lift
Depth to water at start of test _____ ft. At end of test _____ ft.
Discharge 5 gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made Yes No If yes, attach copy to this report

Signed Fred J Stinnett (Well Driller)
NAME FRED STINNETT WELL DRILLING CO.
Address P.O. BOX 772 (Person, firm, or corporation) (Typed or printed)
City Placerville, Ca. 95667 ZIP _____
License No. 399315 Date of this report _____

NW 1/4 07

STATE OF CALIFORNIA THE RESOURCES AGENCY

Do not fill in

ORIGINAL File with DWR

DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT

No. 308224

Notice of Intent No. _____ Local Permit No. or Date 12/3/86

State Well No. _____ Other Well No. 09N13E07D 200' 200'

(2) LOCATION OF WELL (See instructions): #2 County 09 Owner's Well Number Happy Valley, Somerset, Ca. Township 09N Range 13E Section 07 Distance from cities, roads, railroads, fences, etc. Parcel # 41-900-03

(12) WELL LOG: Total depth 200 ft. Completed depth 200 ft. from ft. to ft. Formation (Describe by color, character, size or material) 0' - 30' Decomposed Granite 30' - 40' Hard Blue Granite 40' - 180' Hard Gray & Blue Granite 180' - 182' First water fracture - 1 GPM 182' - 200 HARD GRAY GRANITE

Actual water production depends upon hydrological conditions beyond the control of Contractor, and which are subject to dramatic changes in short periods of time. Therefore, Contractor does not warrant the continued production of any quantity or quality of water observed or reported at stage of or at the conclusion of the project.

- (3) TYPE OF WORK: New Well [X] Deepening [] Reconstruction [] Reconditioning [] Horizontal Well [] Destruction [] (Describe construction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [X] Irrigation [] Industrial [] Test Well [] Municipal [] Other [] (Describe)

WELL LOCATION SKETCH

(5) EQUIPMENT: Rotary [X] Reverse [] Cable [] Air [X] Other [] Bucket []

(6) GRAVEL PACK: Yes [] No [X] Size _____ Diameter of bore _____ Packed from _____ to _____ ft.

(7) CASING INSTALLED: Steel [] Plastic [X] Concrete [] From ft. To ft. Dia. in. Gage or Wall From ft. To ft. Slot size

(8) PERFORATIONS: Type of perforation or size of screen

(9) WELL SEAL: Was surface sanitary seal provided? Yes [X] No [] If yes, to depth 20' ft. Were strata sealed against pollution? Yes [] No [] Interval _____ ft. Method of sealing Concrete

Actual water production depends upon hydrological conditions beyond the control of Contractor, and which are subject to dramatic changes in short periods of time. Therefore, Contractor does not warrant the continued production of any quantity or quality of water observed or reported at stage of or at the conclusion of the project.

(10) WATER LEVELS: Depth of first water, if known 182' ft. Standing level after well completion 100' ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS: Was well test made? Yes [X] No [] If yes, by whom? DRILLING CO. Type of test Pump [] Bailer [] Air lift [X] Depth to water at start of test _____ ft. At end of test _____ ft. Discharge _____ gal/min after _____ hours Water temperature _____ Chemical analysis made? Yes [] No [X] If yes, by whom? Was electric log made Yes [] No [X] If yes, attach copy to this report

Signed Fred J. Stinnett (Well Driller) NAME FRED STINNETT WELL DRILLING CO. (Person, firm, or corporation) (Typed or printed) Address P.O. BOX 772 City Placerville, Ca. 95667 ZIP License No. 399315 Date of this report

EL DORADO COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH
360 Fair Lane
Placerville, CA 95667
(916) 626-2411

REPORT OF WELL PRODUCTION

Owner of Property: WALT SPILLER

Address of Owner: 3111 FORNI ROAD
PLACERVILLE, CA. 95667

Location of Property: _____
HAPPY VALLEY

Assessor's Parcel Number: 41-900-03

Builder: _____

Results of four (4) hour well production test: 5 gpm

Date Performed: DEC. 3, 1986

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE
AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Test Performed by: FRED STINNETT WELL DRILLING

State License Number: 399315

EL DORADO COUNTY DIVISION OF ENVIRONMENTAL HEALTH
7563 Green Valley Road, Placerville, Ca. 95667
(916) 621-5300

REPORT OF WELL PRODUCTION

OWNER OF PROPERTY: Walter Spiller

ADDRESS OF OWNER: 870 Vivian Court
Placerville, CA 95667

LOCATION OF PROPERTY: Happy Valley Road

ASSESSOR'S PARCEL NUMBER: 41-900-03

EL DORADO COUNTY
RECEIVED
OCT 22 1993
ENVIRONMENTAL
MANAGEMENT

TO BE COMPLETED BY WELL DRILLER

Results of four (4) hour well production test: 5 gpm

Date Performed: 10-13-93

Depth of well 550 ft. Static water level 400 ft.

Diameter of well casing 0 in.

I, HEREBY, CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND
CORRECT TO THE BEST OF MY KNOWLEDGE.

Test performed by: *Gary C. Franko*
Gary C. Franko Well Drilling, Inc.
State License Number: 282051



Kilzer / Somerset Ridge LLC

Fire Safe Plan

2023.01.19



C: 530-643-9244 O: 530.497.5236 F: 530.841.2632
4232 Fowler Lane, Suite 201, Diamond Springs, CA 95619
www.jeffersonresource.com

John W. LeBlanc
Registered Professional Forester #2324

CCUP20-0003/Kilzer
Fire Safe Plan
Exhibit K

Kilzer / Somerset Ridge LLC

Fire Safe Plan

Parcel Number 041900003
Site Address 5840 STEPHANIE CT
Owner KILZER SUSAN B & COLLINS ADAM
Mailing Address 20016 BRAGG, CHAPEL HILL, NC 27517

Introduction

The Kilzer / Somerset Ridge LLC is planning on establishing a commercial cannabis cultivation site on a 10-acre parcel at 5840 Stephanie Ct., Somerset, CA. El Dorado County requires developing a Fire Safe Plan as part of its permitting process. This plan addresses issues related to determining a wildland fire's potential to impact the property. Vegetation, slope, aspect, and weather are considered along with the area's fire history and potential changes to climate and how such factors may also impact on this parcel.

Location and Site Description

This 10-acre parcel at 5840 Stephanie Ct., Somerset, CA, El Dorado County is located in a largely rural area. The elevation is 3,200 feet. Stephanie Ct. is accessed via Stephanie Lane which is accessed from Happy Valley Road. The parcel lies north of the North Fork Cosumnes River. Water is supplied by an onsite well.

The parcel is 9 miles, and approximately 26 minutes, driving from Pioneer Fire Dist. Station 32, 4770 Sand Ridge Rd, Placerville, CA 95667. The drive is along Happy Valley Road which is narrow and winding most of its length. Residents should evacuate early during any emergency due to the challenge of driving this road during an emergency. Residents should scout out and practice evacuation routes.

The parcel has a less than 10% slope with a southwest aspect. It lies on a ridgetop that trends to the northeast. Southwest and off of the property is a steep drop into the North Fork Cosumnes River canyon.

The project is in a State Responsibility Area and considered a Very High Fire Hazard Severity Zone. The project is not located in any of the EDC community Fire Safe Councils.

The subject parcel lies northwest of the 2021 Caldor fire. The Caldor Fire was a large wildfire that burned 221,835 acres in the Eldorado National Forest and other areas of the Sierra Nevada in El Dorado, Amador, and Alpine Counties, California, in the United States during the 2021 California wildfire season. The fire was first reported on Saturday, August 14, 2021, and was fully contained on Thursday, October 21, 2021. The Caldor Fire destroyed 1,003 structures and damaged 81 more, primarily in the US Highway 50 corridor and in the community of Grizzly Flats, 2/3 of which was destroyed by the fire.

On August 30, it became the second fire known to cross the Sierra Nevada mountain range, following the Dixie Fire, which crossed a few days earlier on August 18. It then threatened the communities of Meyers and South Lake Tahoe, causing evacuations to be ordered for more than 20,000 people before the fire's progress was halted. The Caldor Fire was the third-largest and second-most-destructive of the 2021 season in California, and the 15th-largest and 16th-most destructive in recorded California history.

Conditions similar to the area of the Caldor Fire characterize the subject parcel. A similar event is possible here.

Vegetation

The Kilzer / Somerset Ridge LLC parcel is 10 acres of mixed forest where the blue oak woodlands meet the ponderosa pine ecological belt. Blue oak woodland is the primary vegetation type according to the California Wildlife Habitat Relationships model (CDFW 2014). Blue oak and associated oaks and ponderosa pine are the principal forest species. The understory consists of Manzanita (*Arctostaphylos spp.*), Ceanothus (*Ceanothus spp.*), and Bearclover / Mountain Misery (*Chamaebatia foliolosa*). There are a number of patches of chaparral shrub. There are open grasslands near the center of the parcel and grasslands and agricultural fields in the surrounding landscape.

The blue oak / ponderosa pine woodland that comprises the majority of the parcel is described by Scott et al. (2005) as Very High Load, Dry Climate Timber-Shrub (TU5) in the Standard fire behavior fuel models: a comprehensive set for use with Rothermel's surface fire spread model. The primary carrier of fire in TU5 is heavy forest litter with a shrub or small tree understory. Spread rate is moderate; flame length moderate.

The patches of chaparral are considered by this model to be High Load, Dry Climate Shrub (SH5). The primary carrier of fire in SH5 is woody shrubs and shrub litter. Heavy shrub load, depth 4-6 feet. Spread rate very high; flame length very high.

The area immediately surrounding the project area is Grass Fuel Type Models (GR). The primary carrier of fire in the GR fuel models is grass. Grass fuels can vary from heavily grazed grass stubble or sparse natural grass to dense grass more than 6 feet tall. Fire behavior varies from moderate spread rate and low flame length in the sparse grass to extreme spread rate and flame length in the tall grass models. All GR fuel models are dynamic, meaning that their live herbaceous fuel load shifts from live to dead as a function of live herbaceous moisture content. The effect of live herbaceous moisture content on spread rate and intensity is strong. If the area is mowed the GR4, Moderate Load, Dry Climate Grass (Dynamic) is an appropriate model with moderate spread rate and low flame length. Unmowed, this area could have an extreme spread rate and flame length.

The parcel is about 70% forested with 30% in grassland. There is a house and several outbuildings. The site of the proposed operation is surrounded by grassland and adjacent to the residence.

The landowners should consider reducing the biomass on the parcel that surrounds the project. Pile and burn, mastication, or other reduction efforts should be considered. At the time of the field visit in the Fall of 2022, there were several piles built that should be treated by burning or removal as soon as conditions permit. Mowing of the grass area at least annually to less than 4" is advised.

Consider separating the project and structures from continuous bands of fuel, grass, shrubs, and trees. Reducing the horizontal and vertical continuity of the vegetation will reduce the threat to the project and structures from wildland fire.

Given that the proposed project is a commercial cannabis grow, El Dorado County requires any production facility to be screened from the road. Existing vegetation currently provides that screening. Objectionable odors are likely to occur. Vegetation surrounding the project can filter some of the potential odor. The need to screen and filter needs to be considered when removing biomass from the project area.

Weather and Climate

The climate of El Dorado County is characterized as Mediterranean with long, hot, dry summers and short, cool, and wet winters. Late summer and early fall are the principal time for wildland fire to ignite.

Rainfall averages 42" per year. About 2" of snow falls annually according to the National Weather Service's historical records. Significant precipitation is rare between May and October leading to a long hot summer with dry fuel available.

Local weather substantially drives fire behavior. The southwest aspect of the subject parcel aligns with the typical wind impacting the area. These winds tend to be diurnal, moving upslope

during the day and downslope at night. The southwest aspect aligns with those southwest winds which could push wildfire across the property. The southwest alignment increases solar radiation leading to more rapid fuel drying and preheating in the event of fire.

Strong southwest winds from approaching low pressure systems can gain velocity with very low humidity prior to the arrival of precipitation and increased humidity. These conditions allow fire to spread quickly.

Another less common, but likely weather condition that could impact fire behavior are the strong winds from the northeast sometimes called the Diablo wind. The Diablo wind is created by the combination of strong inland high pressure at the surface, strongly sinking air aloft, and lower pressure off the California coast. The air descending from aloft as well as from the Coast Ranges compresses as it sinks to sea level where it warms as much as 20 °F (11 °C) and loses relative humidity.

Because of the elevation of the coastal ranges in north-central California, the thermodynamic structure that occurs with the Diablo wind pattern favors the development of strong ridge-top and lee-side downslope winds. Diablo-type wind originates mainly from strongly sinking air from aloft, pushed toward the coast by higher inland pressure. Thus, a Diablo wind is first noted and blows strongest on the western slopes, mountain peaks, and ridges.

As the air sinks, it heats up by compression and its relative humidity drops. This warming is in addition to, and usually greater than, any contact heating. This is the reverse of the normal summertime weather pattern in which an area of low pressure (called the California Thermal Low) rather than high pressure lies east of the coast, drawing in cooler, more humid air from the ocean.

The dry offshore wind, already strong because of the offshore pressure gradient, can become quite strong with gusts reaching speeds of 40 miles per hour (64 km/h) or higher, particularly along and in the lee of the ridges of the Coast Range. This effect is especially dangerous with respect to wildfires as it can enhance the updraft generated by the heat in such fires. While the Diablo wind pattern occurs in both the spring and fall, it is most dangerous in the fall, when vegetation is at its driest (Wikipedia 2022).

Slope, Aspect

Slope and aspect shape the topographical influences on fire behavior. The relatively gentle slope limits uphill preheating of fuel. The impact of slope and aspect on fire behavior is discussed in the Weather and Climate section.

Defensible Space

Maintaining defensible space around structures is crucial for wildland fire defense. The first 5 feet around all structures should have no combustible materials. Bare earth, concrete, paving or another easily maintained surface should be considered. Embers blowing from a wildland fire are a common cause of ignition in dwellings and other buildings. The embers blow against the building and ignite any combustible material. Radiant energy can ignite materials inside the structure through windows, along with igniting the building material themselves. This 5-foot zone of non-combustible material needs to be maintained. Fallen leaves and other combustibles should be removed before fire season and maintained throughout fire season.

Extending from the structure to 30' is the Lean, Clean and Green Zone where dead vegetation is promptly removed, green vegetation is sparse and horizontally and vertically separated.

Within 100' of a structure is the Reduce Fuel Zone where dead vegetation is promptly removed, green vegetation is horizontally and vertically separated.

Cal Fire's Ready for Wildfire website provides details. The website offers guidelines, an application, and a service to subscribe to wildfire alert texts. It is worthwhile for the landowners to explore this site and evaluate its recommendations against current conditions on the property.

<https://www.readyforwildfire.org/>

From the Ready for Wildfire website:

“Keep your property lean and green to help protect your family and home. Defensible space, coupled with home hardening, is essential to improve your home's chance of surviving a wildfire. Defensible space is the buffer you create between a building on your property and the grass, trees, shrubs, or any wildland area that surround it. This space is needed to slow or stop the spread of wildfire and it helps protect your home from catching fire—either from embers, direct flame contact or radiant heat. Proper defensible space also provides firefighters a safe area to work in, to defend your home.

Defensible Space Zones

Zones 1 and 2 currently make up the 100 feet of defensible space required by law. Assembly Bill 3074, passed into law in 2020, requires a third zone for defensible space.

This law requires the Board of Forestry and Fire Protection to develop the regulation for a new ember-resistant zone (Zone 0) within 0 to 5 feet of the home by January 1, 2023. The intensity of wildfire fuel management varies within the 100-foot perimeter of the home, with more intense fuels' reduction occurring closer to your home. Start at the home and work your way out to 100 feet or to your property line, whichever is closer.

Zone 0 – Ember-Resistant Zone

Zone 0 extends 5 feet from buildings, structures, decks, etc.

The ember-resistant zone is currently not required by law, but science has proven it to be the most important of all the defensible space zones. This zone includes the area under and around all attached decks, and requires the most stringent wildfire fuel reduction. The ember-resistant zone is designed to keep fire or embers from igniting materials that can spread the fire to your home. The following provides guidance for this zone, which may change based on the regulation developed by the Board of Forestry and Fire Protection.

- Use hardscape like gravel, pavers, concrete and other noncombustible mulch materials. No combustible bark or mulch
- Remove all dead and dying weeds, grass, plants, shrubs, trees, branches and vegetative debris (leaves, needles, cones, bark, etc.); Check your roofs, gutters, decks, porches, stairways, etc.
- Remove all branches within 10 feet of any chimney or stovepipe outlet
- Limit plants in this area to low growing, nonwoody, properly watered and maintained plants
- Limit combustible items (outdoor furniture, planters, etc.) on top of decks
- Relocate firewood and lumber to Zone 2
- Replace combustible fencing, gates, and arbors attach to the home with noncombustible alternatives
- Consider relocating garbage and recycling containers outside this zone
- Consider relocating boats, RVs, vehicles and other combustible items outside this zone

Zone 1 – Lean, Clean and Green Zone

Zone 1 extends 30 feet from buildings, structures, decks, etc. or to your property line, whichever is closer.

- Remove all dead plants, grass and weeds (vegetation).
- Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- Remove branches that hang over your roof and keep dead branches 10 feet away from your chimney.
- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- Relocate wood piles to Zone 2.
- Remove or prune flammable plants and shrubs near windows.
- Remove vegetation and items that could catch fire from around and under decks, balconies and stairs.
- Create a separation between trees, shrubs and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2 – Reduce Fuel Zone

Zone 2 extends from 30 feet to 100 feet out from buildings, structures, decks, etc. or to your property line, whichever is closer.

- Cut or mow annual grass down to a maximum height of 4 inches.
- Create horizontal space between shrubs and trees. (See diagram)
- Create vertical space between grass, shrubs and trees. (See diagram)
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.
- All exposed wood piles must have a minimum of 10 feet of clearance, down to bare mineral soil, in all directions.

Zone 1 and 2

Outbuildings and Liquid Propane Gas (LPG) storage tanks shall have 10 feet of clearance to bare mineral soil and no flammable vegetation for an additional 10 feet around their exterior.”

Prescribed Burn Association

The El Dorado Amador Prescribed Burn Association offers workshops and field days on all aspects of prescribed burning with topics such as pile burning, broadcast burning, and permitting. Members assist each other with conducting active burns. The Association is developing a cache of prescribed fire tools for members to borrow.

Prescribed burning is a suite of tools used to reduce fuels. The landowners are encouraged learn about how to safely use prescribed fire to manage the flammable vegetation continuously produced on the property.

Be advised that burning cannabis residue is prohibited by county ordinance (Sec. 130.41.200.5.L "Disposal of Waste Material. Cannabis waste material shall be disposed of in accordance with existing State and local laws and regulations at the time of disposal. Burning of cannabis waste material is prohibited."

Evacuation

The property cannot be made safe for humans during a wildfire. The main access road, Happy Valley Road, is narrow, winding, and would be difficult to travel during an emergency. Early evacuation along safe routes is recommended. A written evacuation plan, and rehearsals of that plan are recommended.

Conclusion

The project area is in a State Responsibility Area and in a Very High Fire Severity Zone. Mixed oak pine forest and grassland occupy the site. Most of the parcel is in the TU5 Timber with Understory Fuel Model with moderate rates of spread and moderate flame lengths.

Citations

California Department of Fish and Wildlife. California Interagency Wildlife Task Group. 2014. CWHR version 9.0 personal computer program. Sacramento, CA.

Scott, Joe H.; Burgan, Robert E. 2005. Standard fire behavior fuel models: a comprehensive set for use with Rothermel's surface fire spread model. Gen. Tech. Rep. RMRS-GTR-153. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 72 p.

Wikipedia contributors, "Diablo wind," *Wikipedia, The Free Encyclopedia*, https://en.wikipedia.org/w/index.php?title=Diablo_wind&oldid=1104793959 (accessed December 6, 2022).



Collins Parcel Location Map

