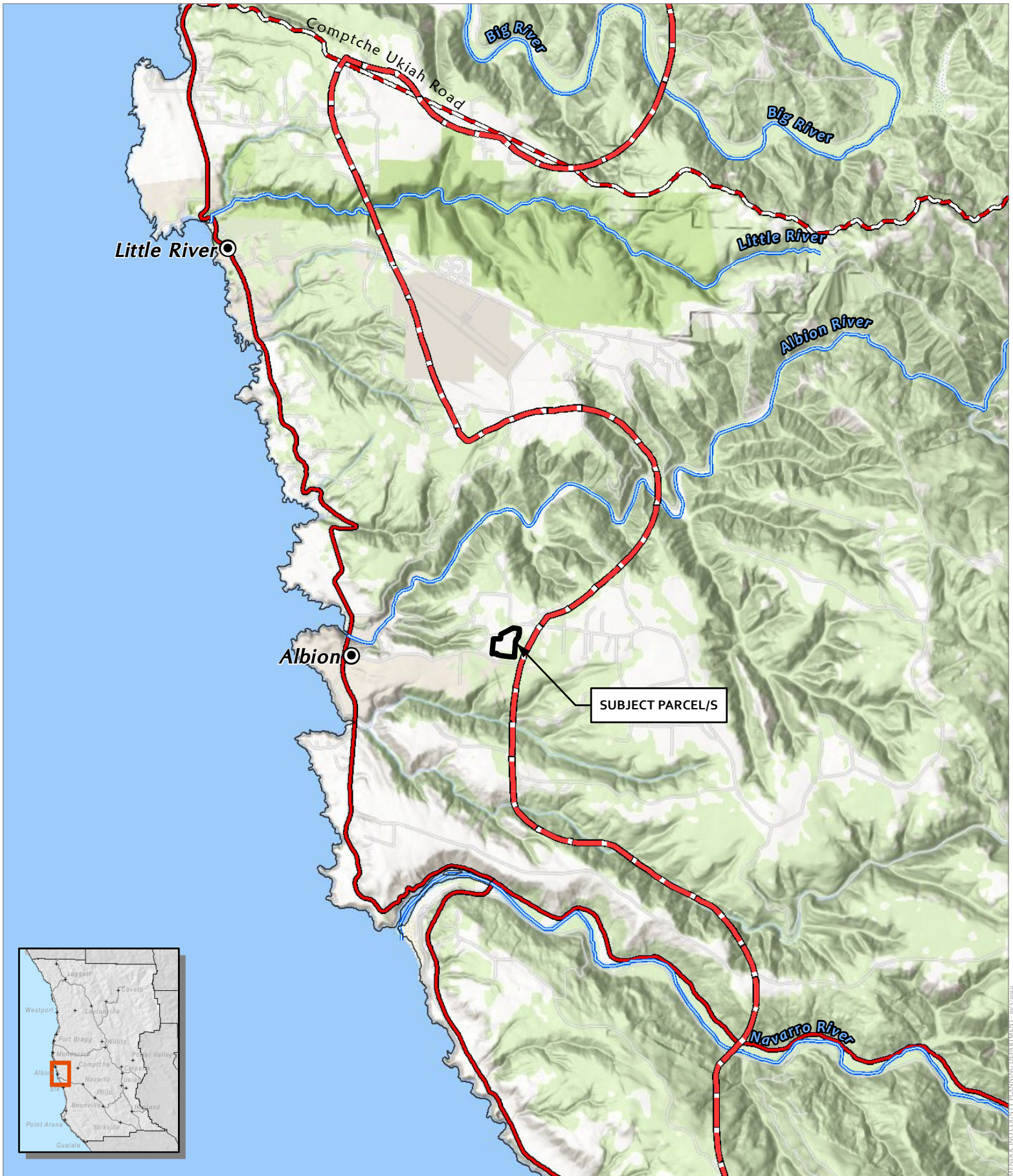
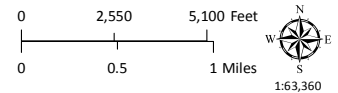
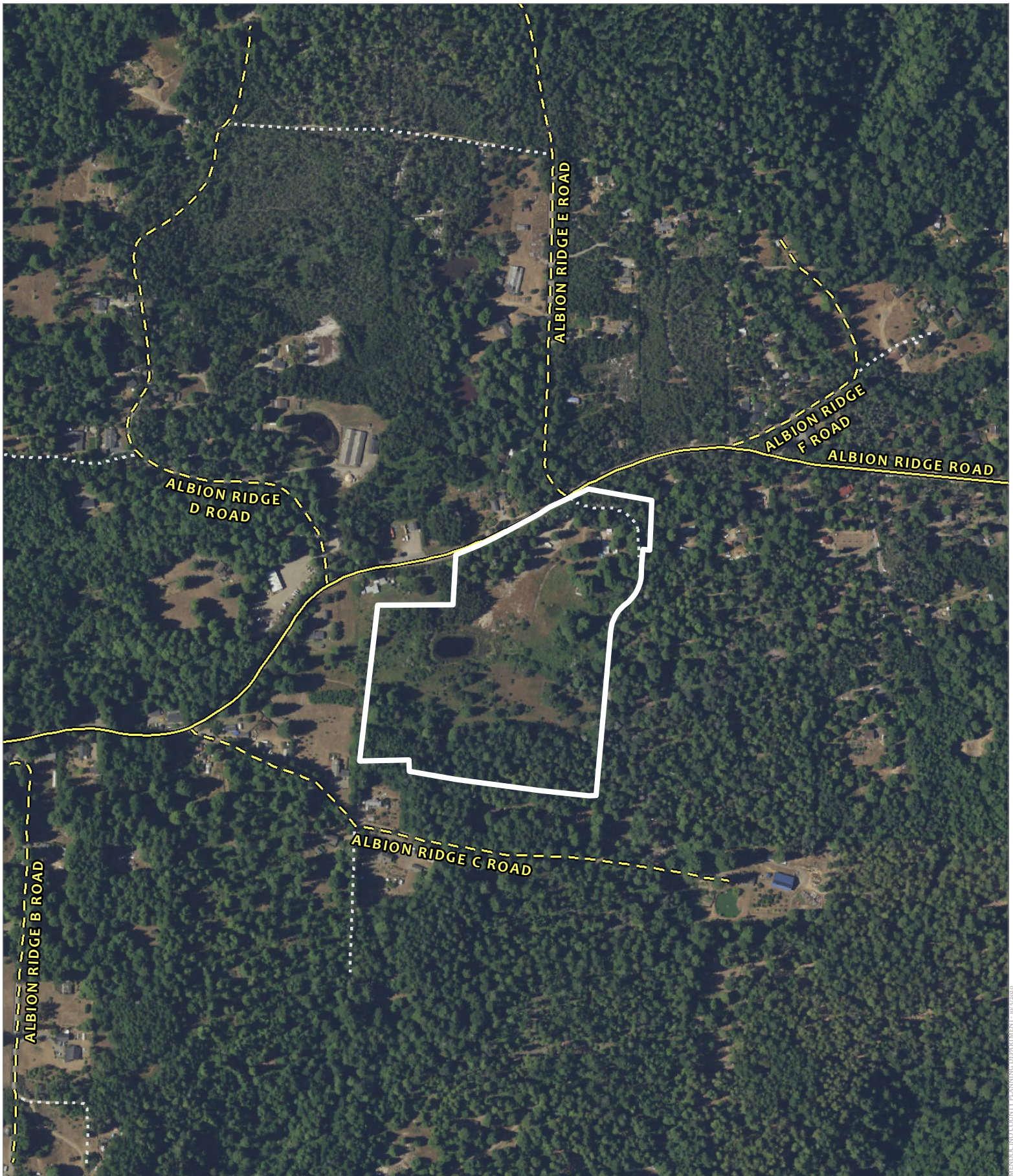




CASE: CDP 2020-0025
 OWNER: PAULSON, Bryan
 APN: 123-210-28
 APLCT: Bryan Paulson
 AGENT: John Johansen
 ADDRESS: 32505 Albion Ridge Road, Albion

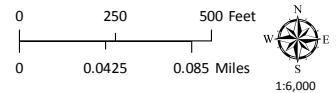
- Major Towns & Places
- Highways
- Coastal Zone Boundary
- Major Roads
- Major Rivers





CASE: CDP 2020-0025
OWNER: PAULSON, Bryan
APN: 123-210-28
APLCT: Bryan Paulson
AGENT: John Johansen
ADDRESS: 32505 Albion Ridge Road, Albion

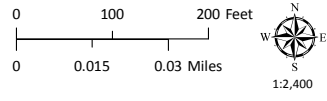
- Public Roads
- Private Roads
- Driveways/Unnamed Roads

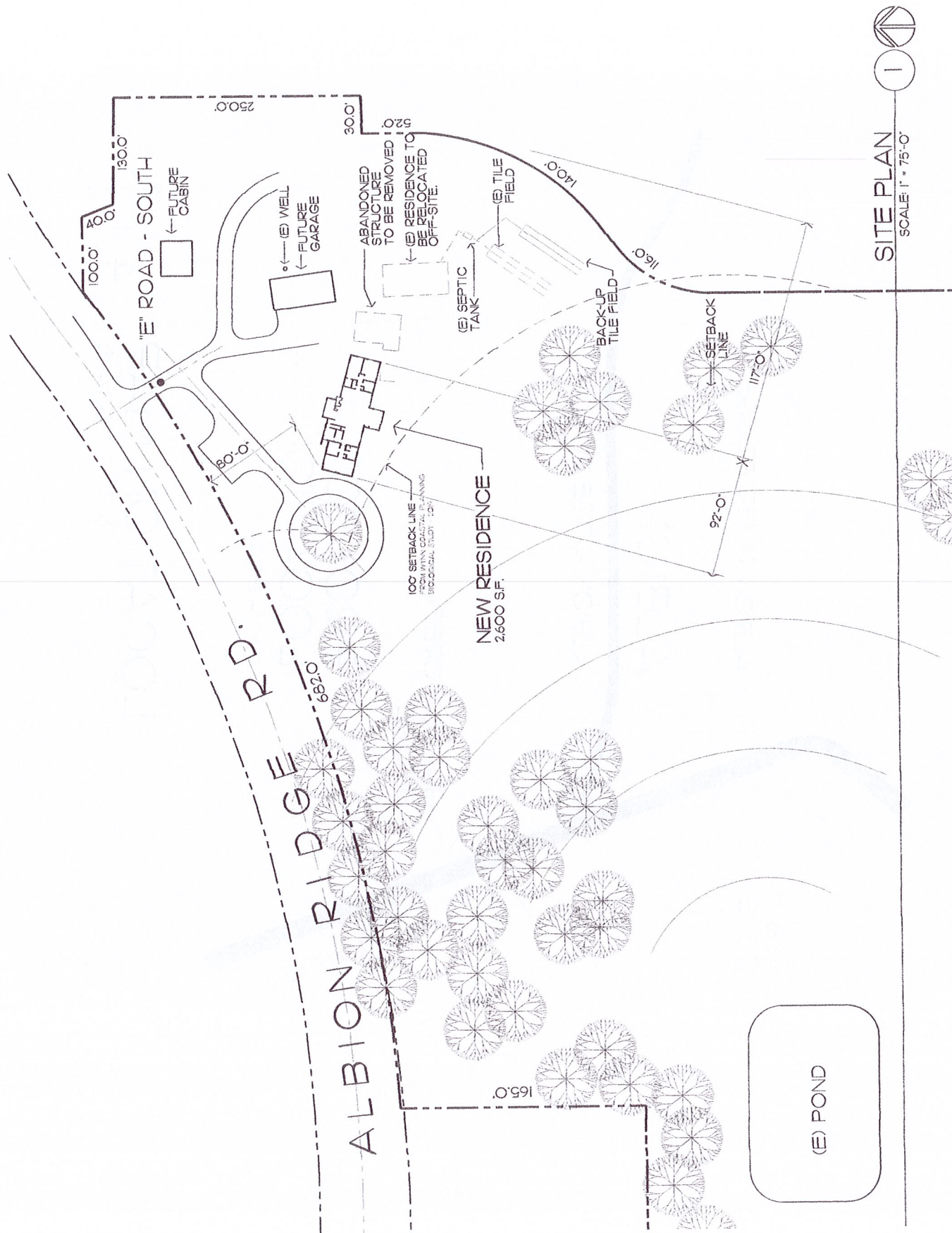




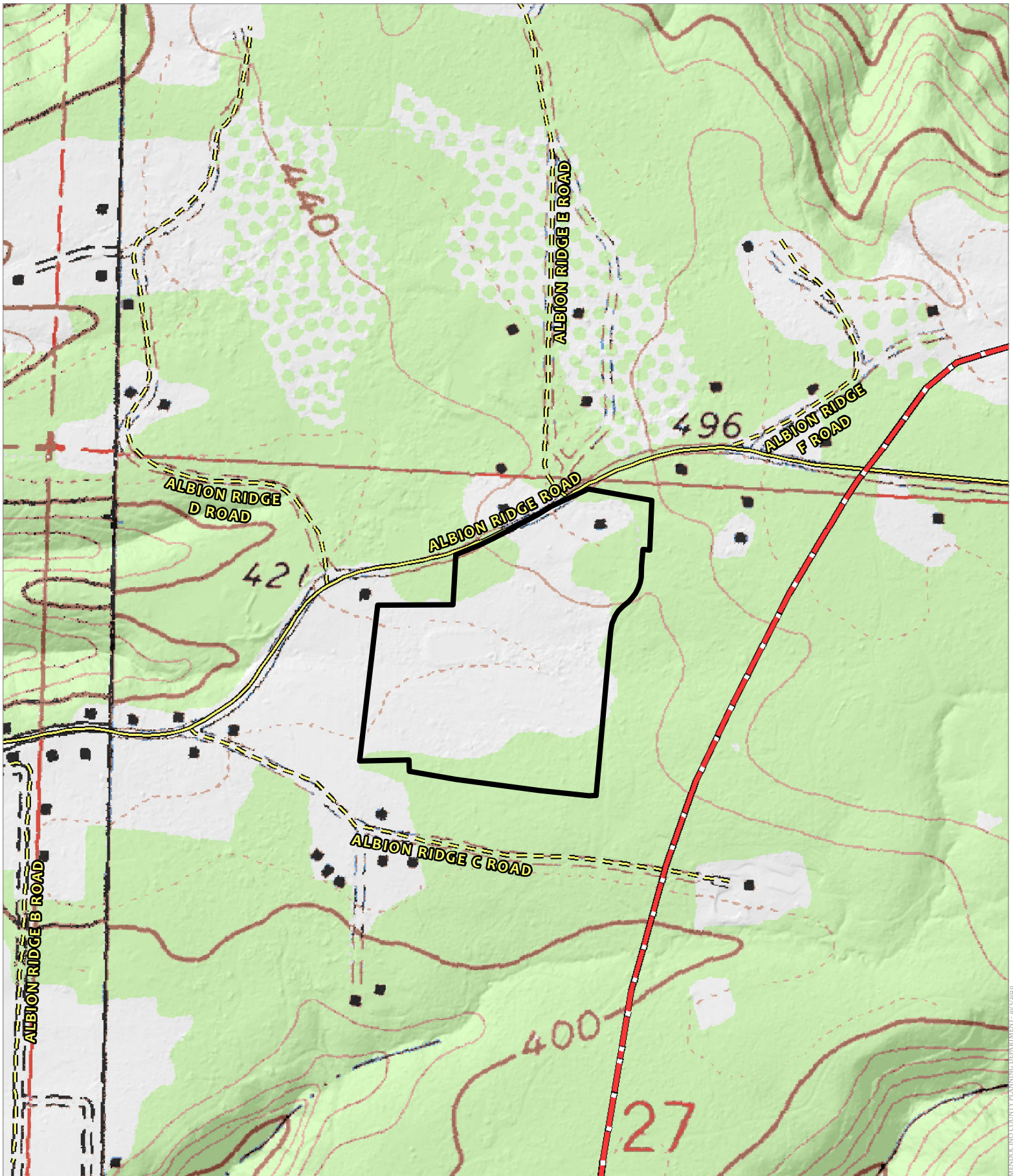
CASE: CDP 2020-0025
OWNER: PAULSON, Bryan
APN: 123-210-28
APLCT: Bryan Paulson
AGENT: John Johansen
ADDRESS: 32505 Albion Ridge Road, Albion

- Public Roads
- Private Roads
- Driveways/Unnamed Roads



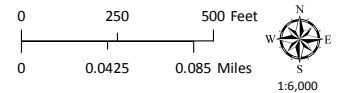


SITE PLAN
SCALE: 1" = 75'-0"

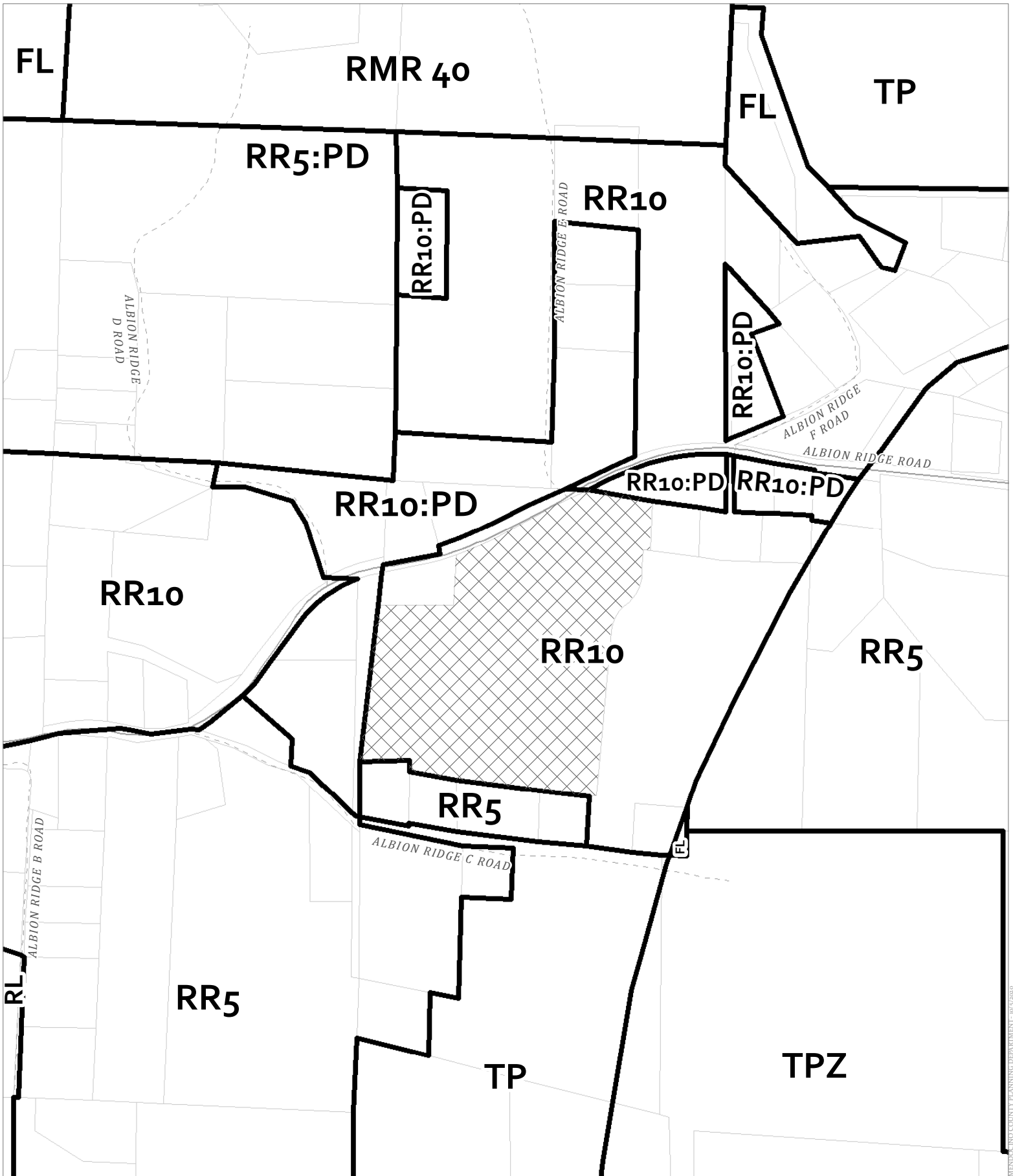


CASE: CDP 2020-0025
 OWNER: PAULSON, Bryan
 APN: 123-210-28
 APLCT: Bryan Paulson
 AGENT: John Johansen
 ADDRESS: 32505 Albion Ridge Road, Albion

- Coastal Zone Boundary
- Public Roads
- Private Roads
- Driveways/Unnamed Roads

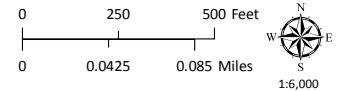


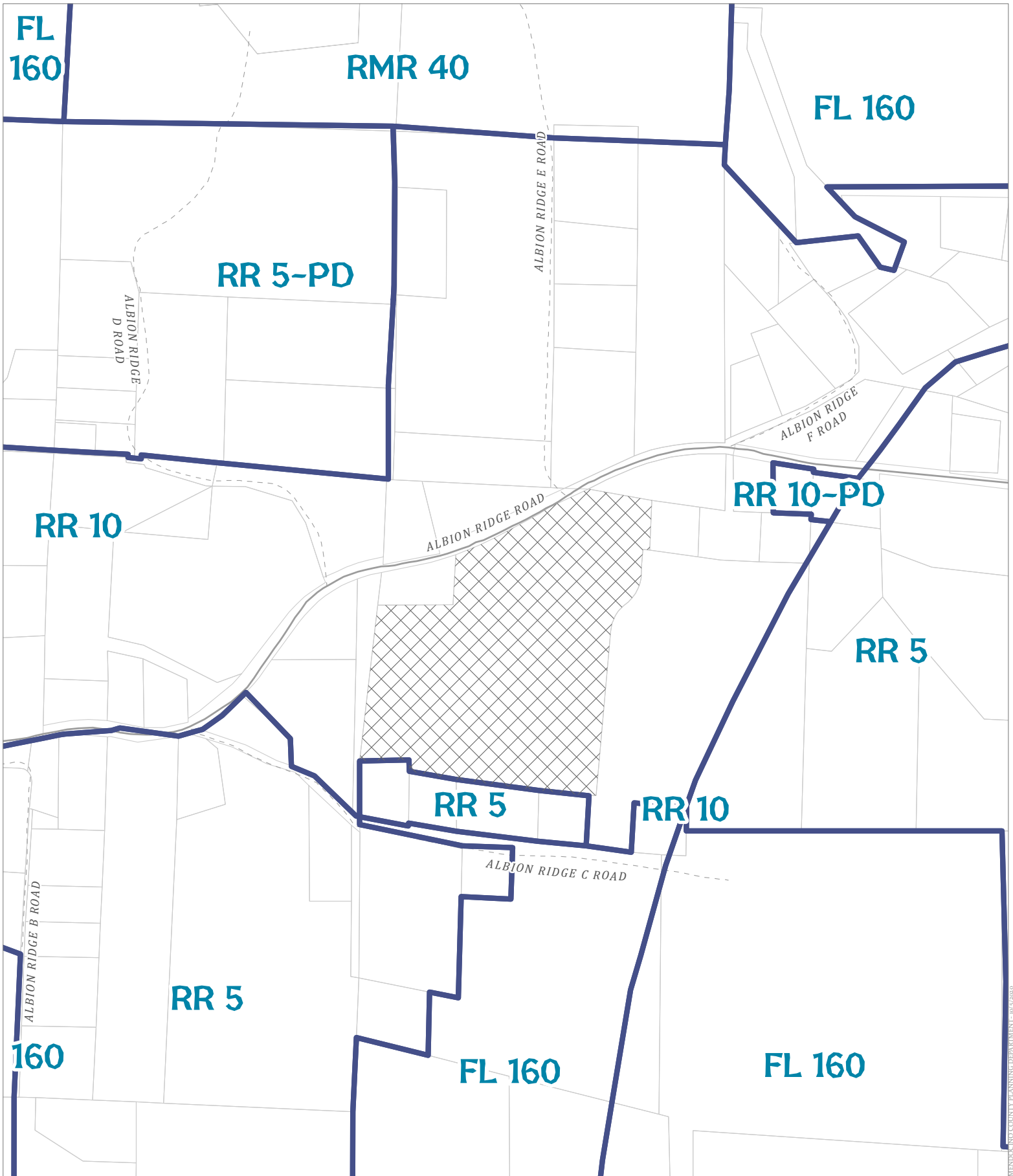
TOPOGRAPHIC MAP
 CONTOUR INTERVAL IS 40 FEET
 ATTACHMENT E



CASE: CDP 2020-0025
 OWNER: PAULSON, Bryan
 APN: 123-210-28
 APLCT: Bryan Paulson
 AGENT: John Johansen
 ADDRESS: 32505 Albion Ridge Road, Albion

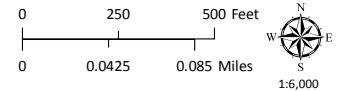
-  Zoning Districts
-  Public Roads
-  Assessors Parcels

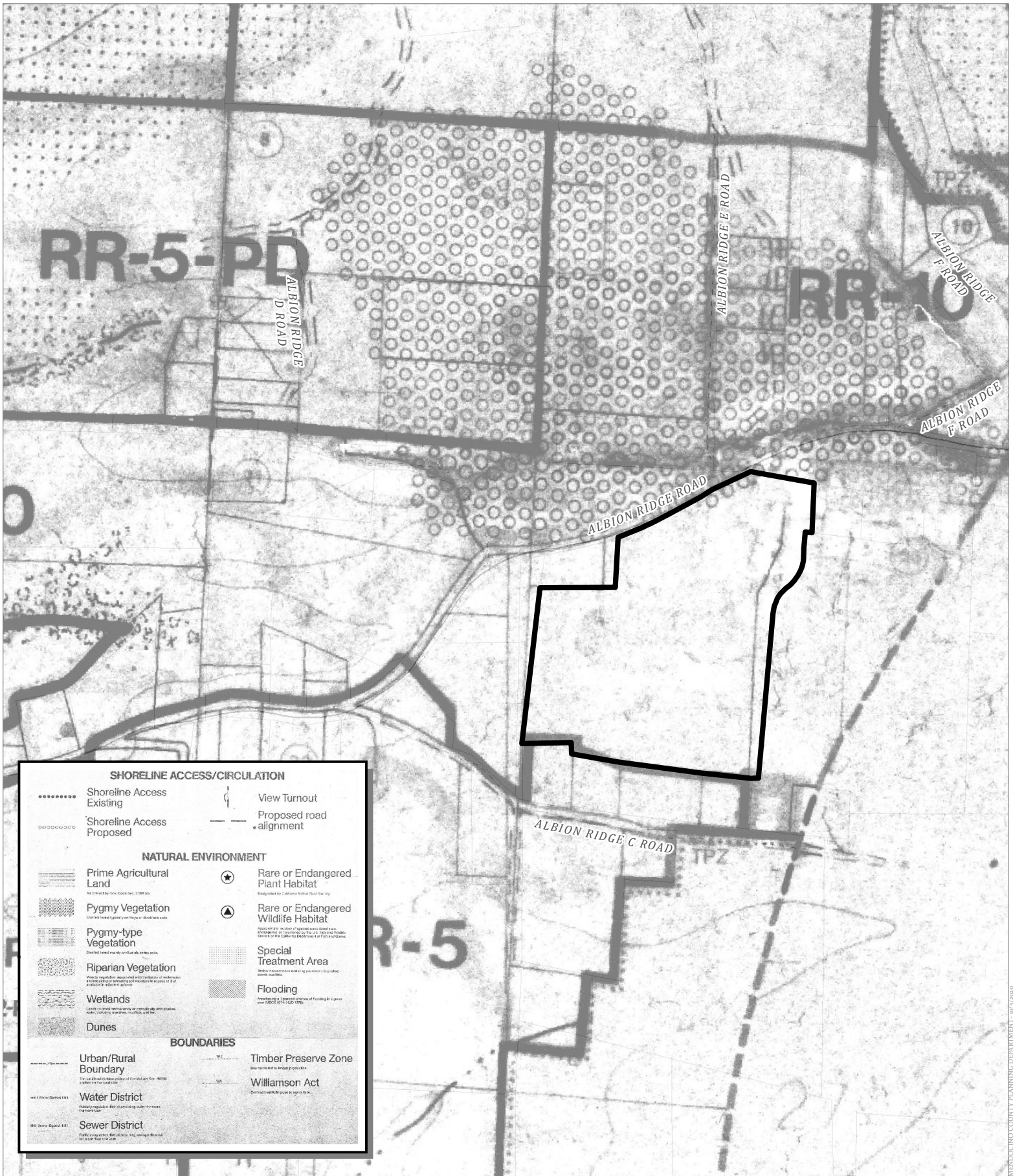




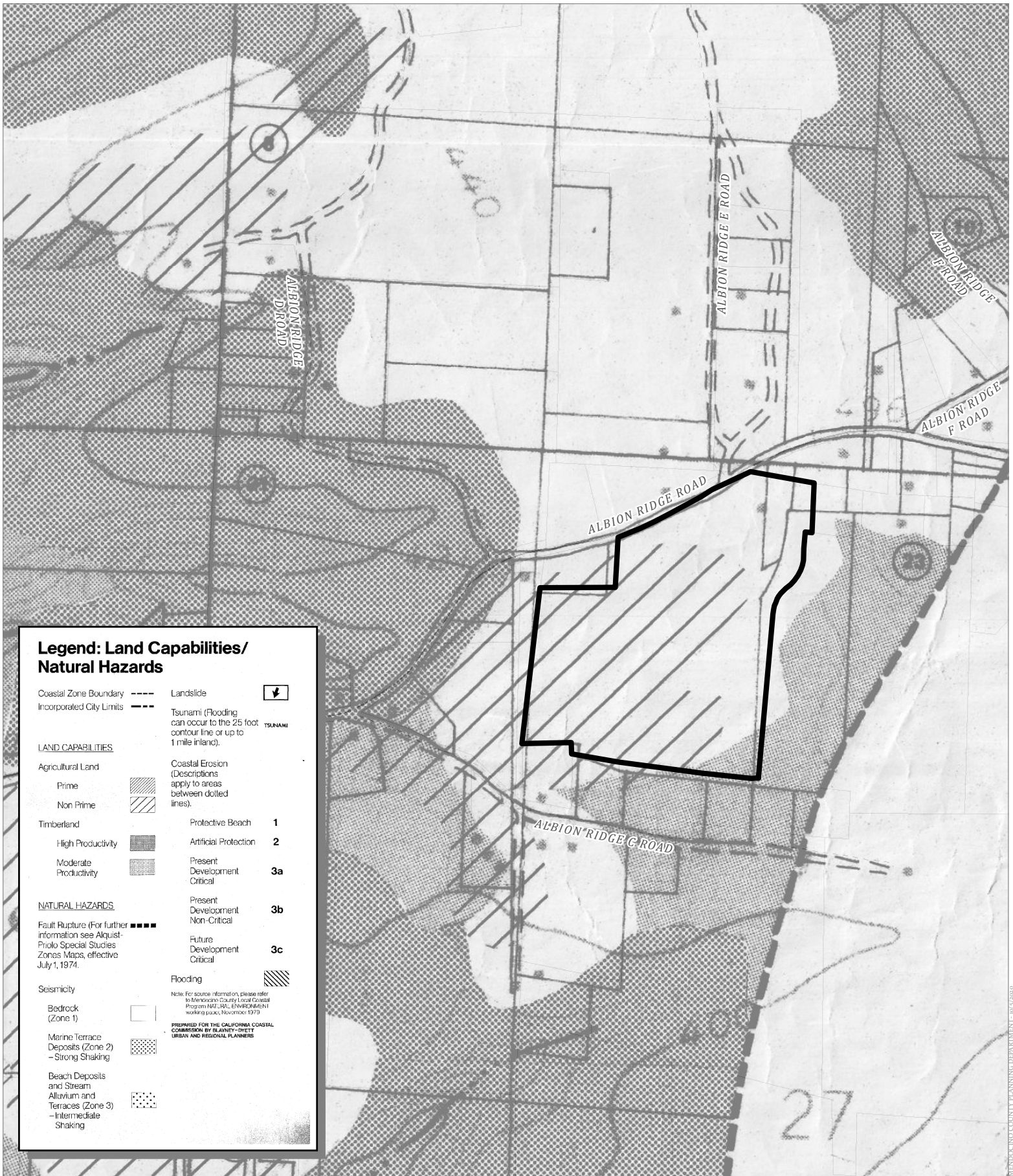
CASE: CDP 2020-0025
 OWNER: PAULSON, Bryan
 APN: 123-210-28
 APLCT: Bryan Paulson
 AGENT: John Johansen
 ADDRESS: 32505 Albion Ridge Road, Albion

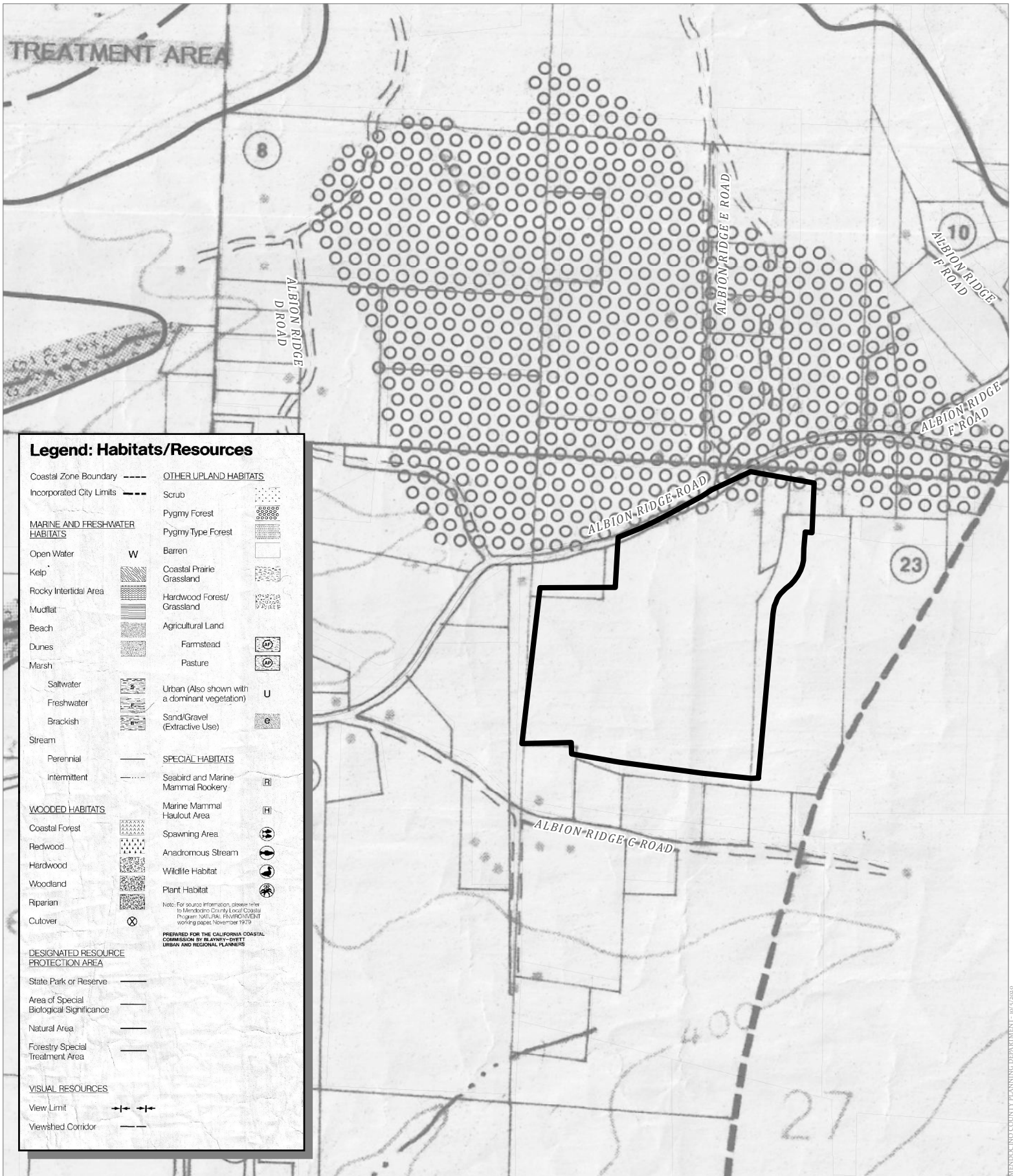
-  General Plan Classes
-  Public Roads
-  Assessors Parcels



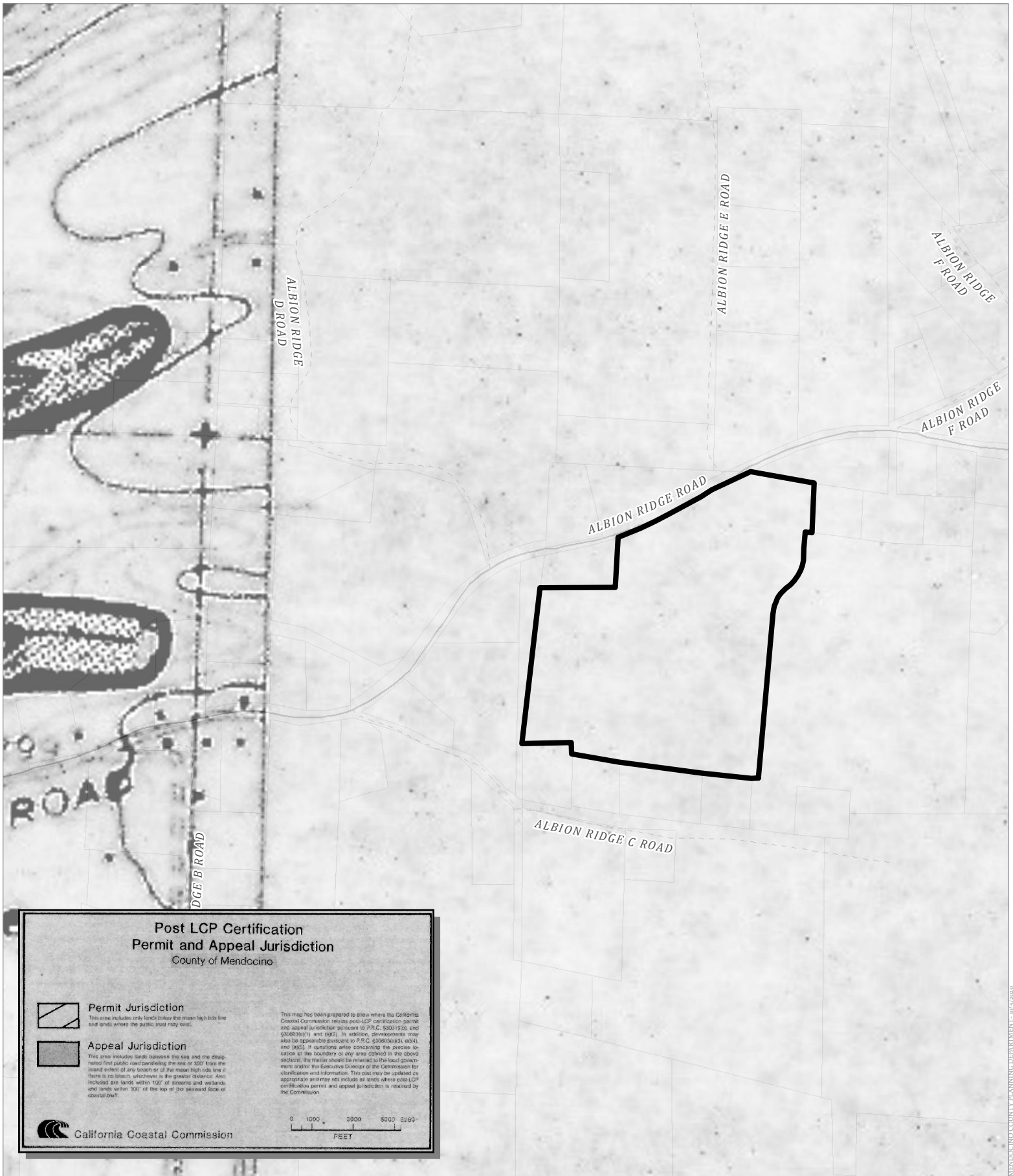


CASE: CDP 2020-0025
 OWNER: PAULSON, Bryan
 APN: 123-210-28
 APLCT: Bryan Paulson
 AGENT: John Johansen
 ADDRESS: 32505 Albion Ridge Road, Albion



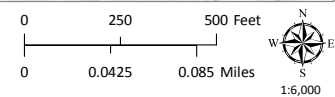


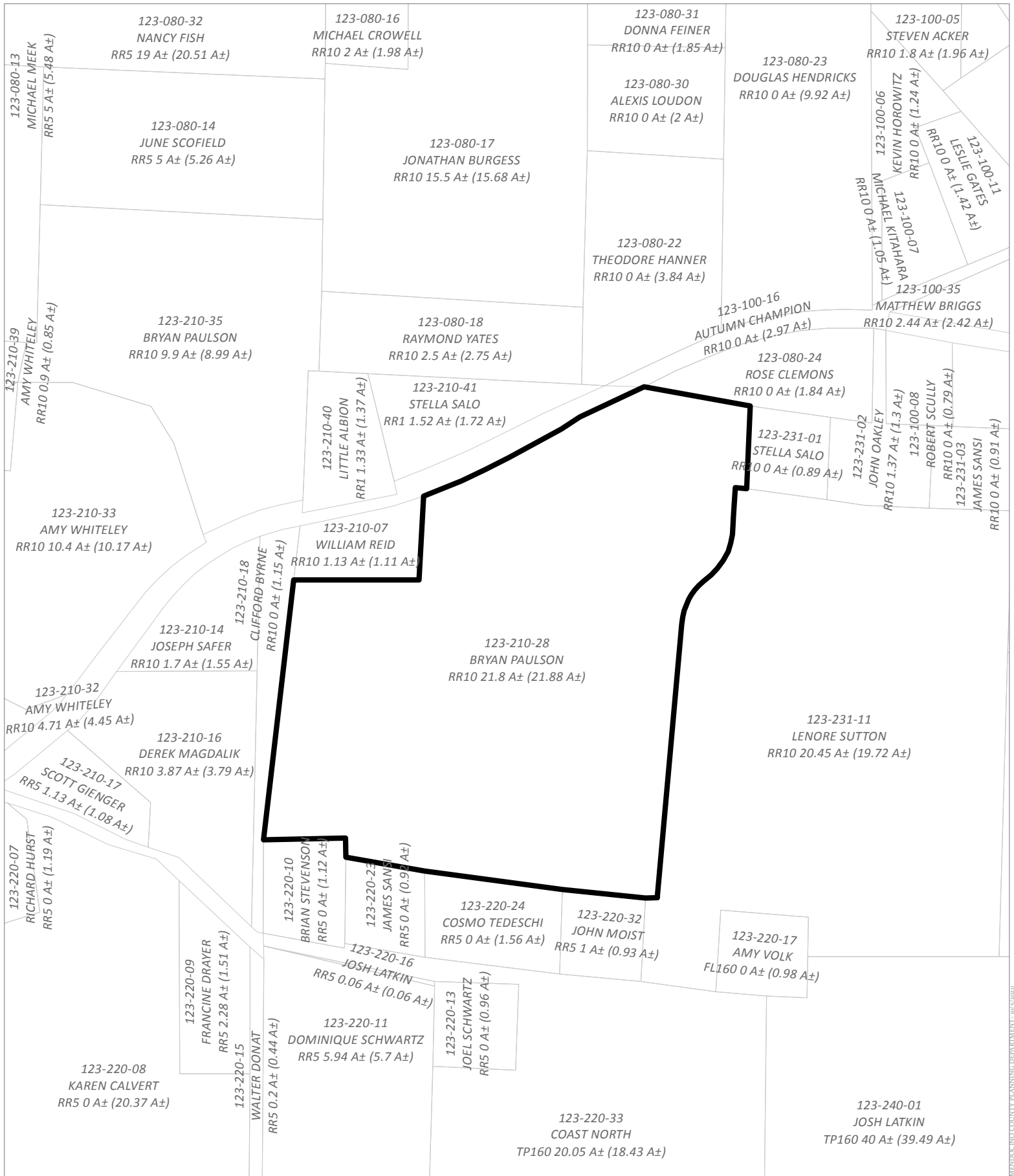
CASE: CDP 2020-0025
 OWNER: PAULSON, Bryan
 APN: 123-210-28
 APLCT: Bryan Paulson
 AGENT: John Johansen
 ADDRESS: 32505 Albion Ridge Road, Albion



CASE: CDP 2020-0025
 OWNER: PAULSON, Bryan
 APN: 123-210-28
 APLCT: Bryan Paulson
 AGENT: John Johansen
 ADDRESS: 32505 Albion Ridge Road, Albion

Public Roads
 Assessor's Parcels

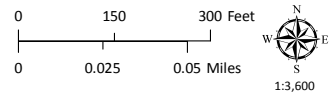




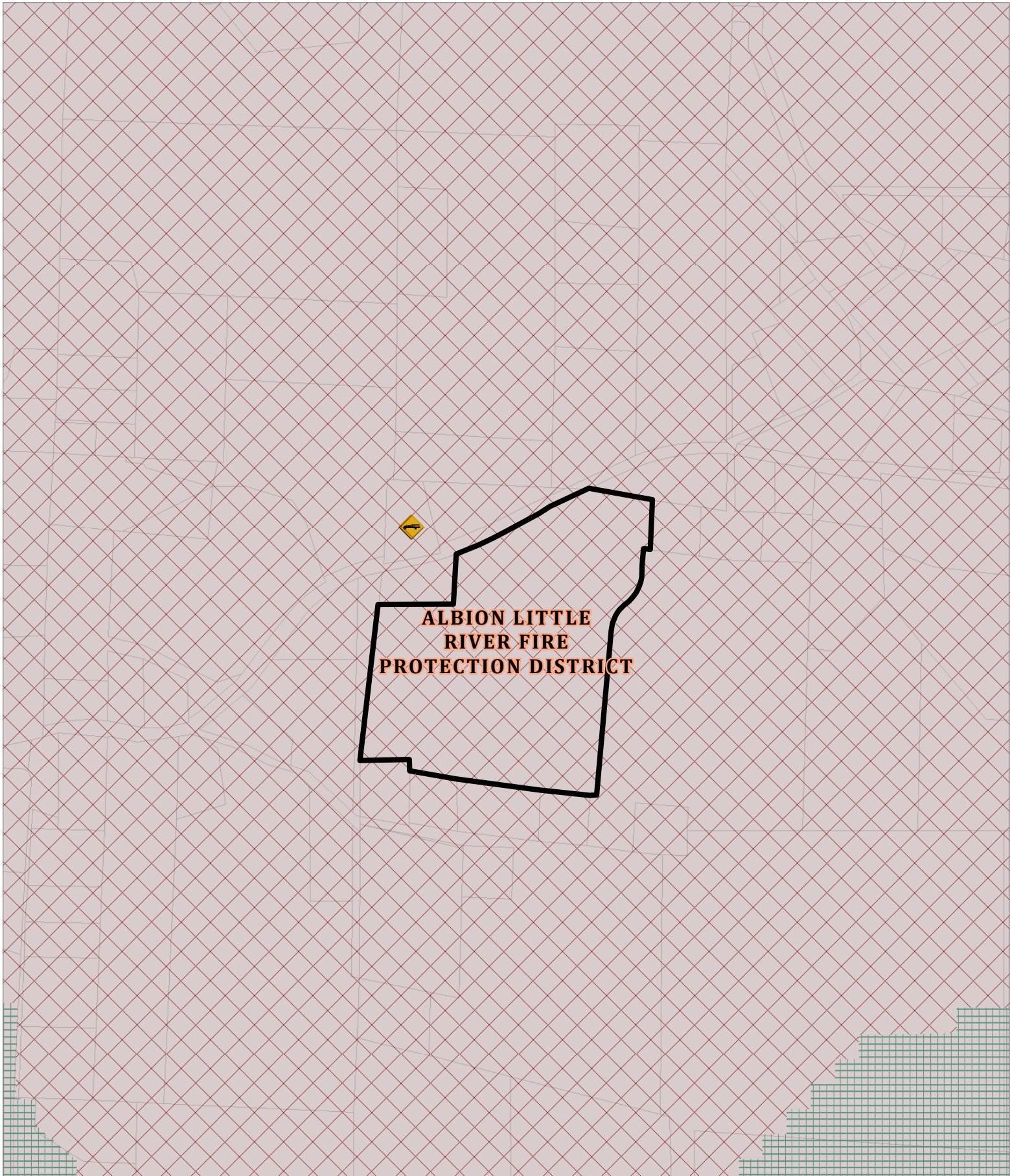
YENDOCKING COUNTY PLANNING DEPARTMENT - 8/2/2020

CASE: **CDP 2020-0025**
 OWNER: **PAULSON, Bryan**
 APN: **123-210-28**
 APLCT: **Bryan Paulson**
 AGENT: **John Johansen**
 ADDRESS: **32505 Albion Ridge Road, Albion**

 Assessors Parcels



ADJACENT PARCELS
ATTACHMENT L



CASE: **CDP 2020-0025**
OWNER: **PAULSON, Bryan**
APN: **123-210-28**
APLCT: **Bryan Paulson**
AGENT: **John Johansen**
ADDRESS: **32505 Albion Ridge Road, Albion**

 High Fire Hazard
 Moderate Fire Hazard
 Fire Stations

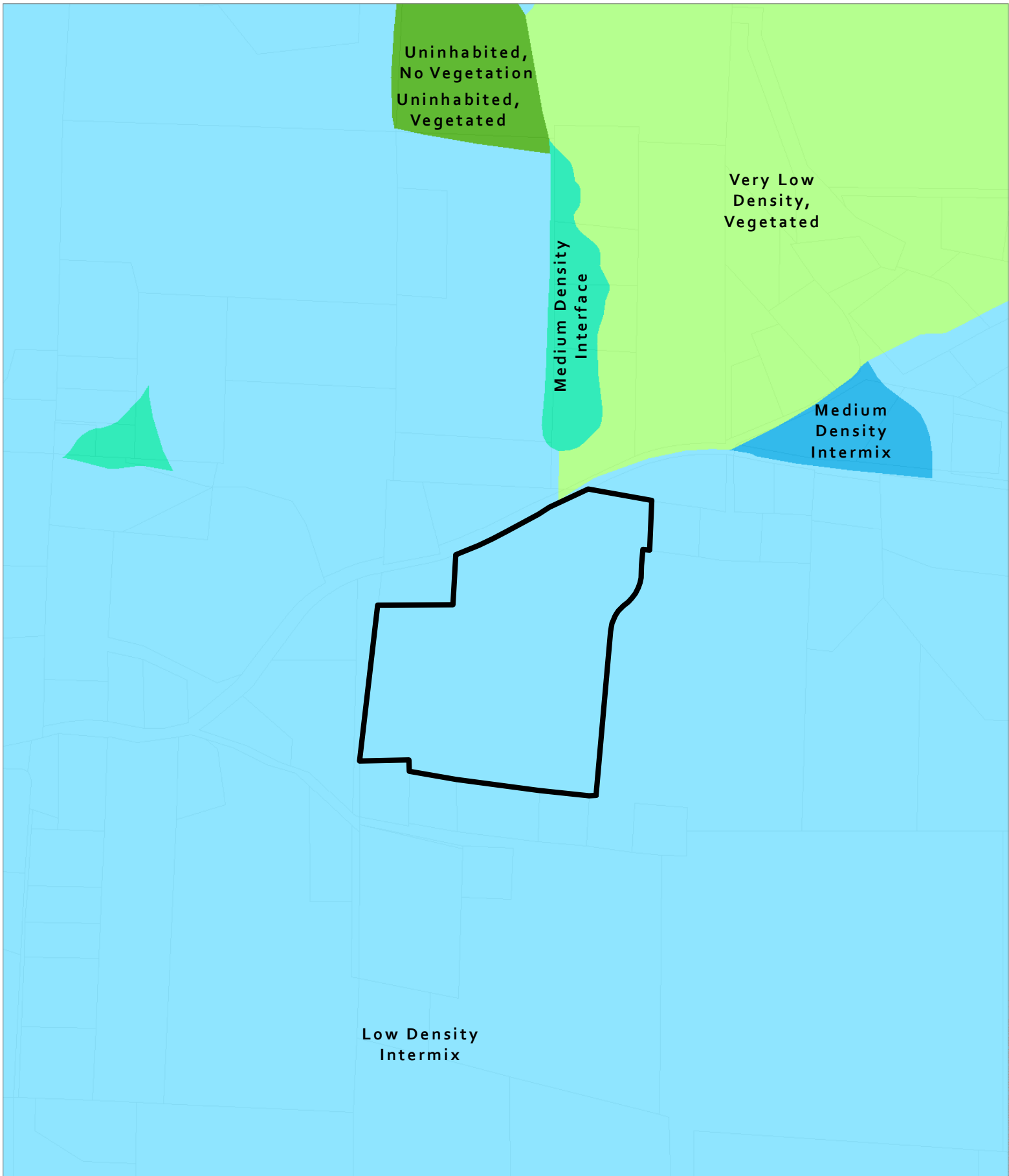
 County Fire Districts
 Assessors Parcels

0 250 500 Feet
0 0.0425 0.085 Miles
1:6,000

N
W
S
E

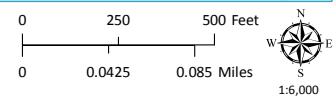
FIRE HAZARD ZONES & RESPONSIBILITY AREAS
STATE RESPONSIBILITY AREA

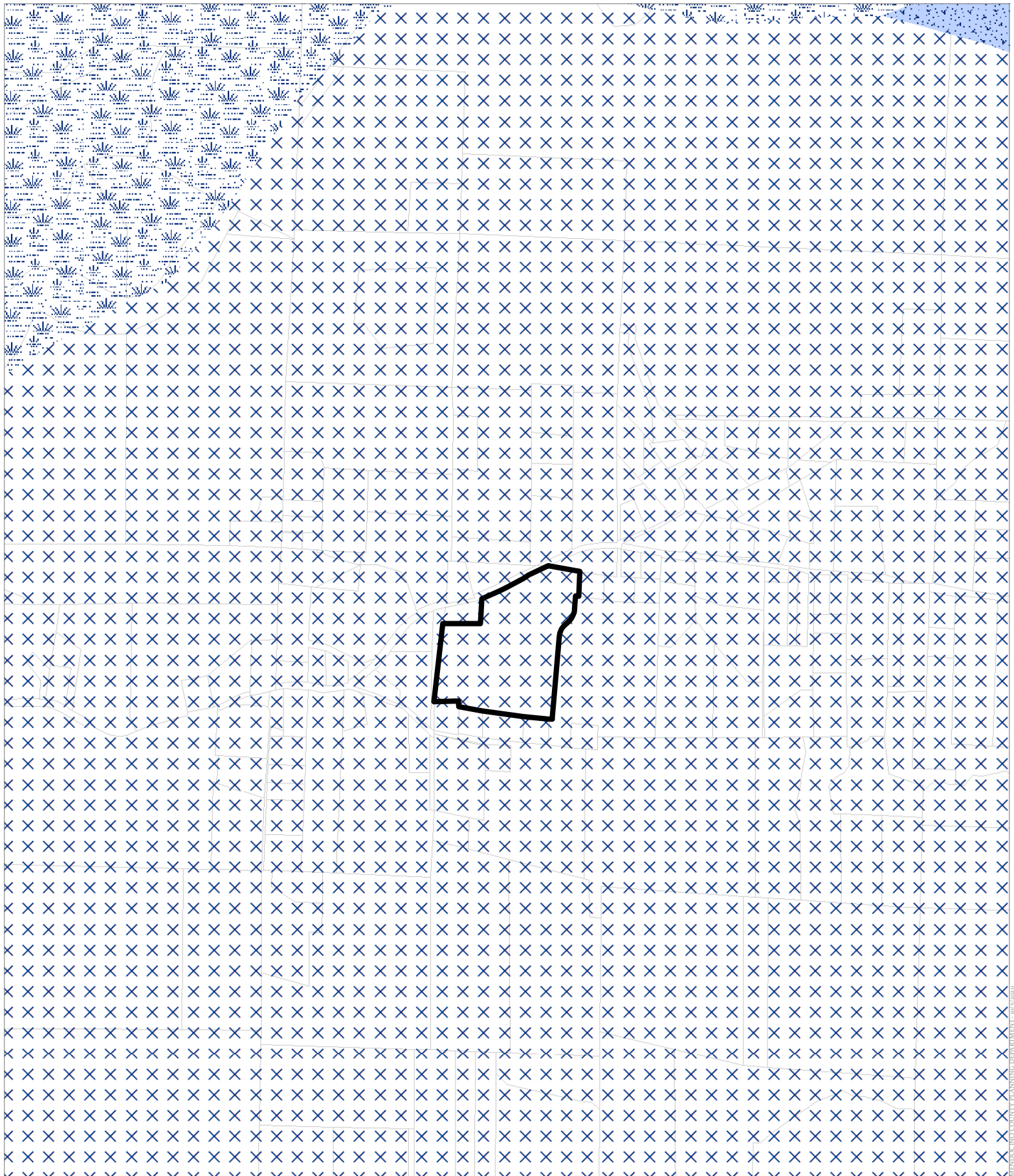
ATTACHMENT M



CASE: CDP 2020-0025
OWNER: PAULSON, Bryan
APN: 123-210-28
APLCT: Bryan Paulson
AGENT: John Johansen
ADDRESS: 32505 Albion Ridge Road, Albion

 Assessors Parcels

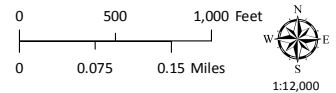


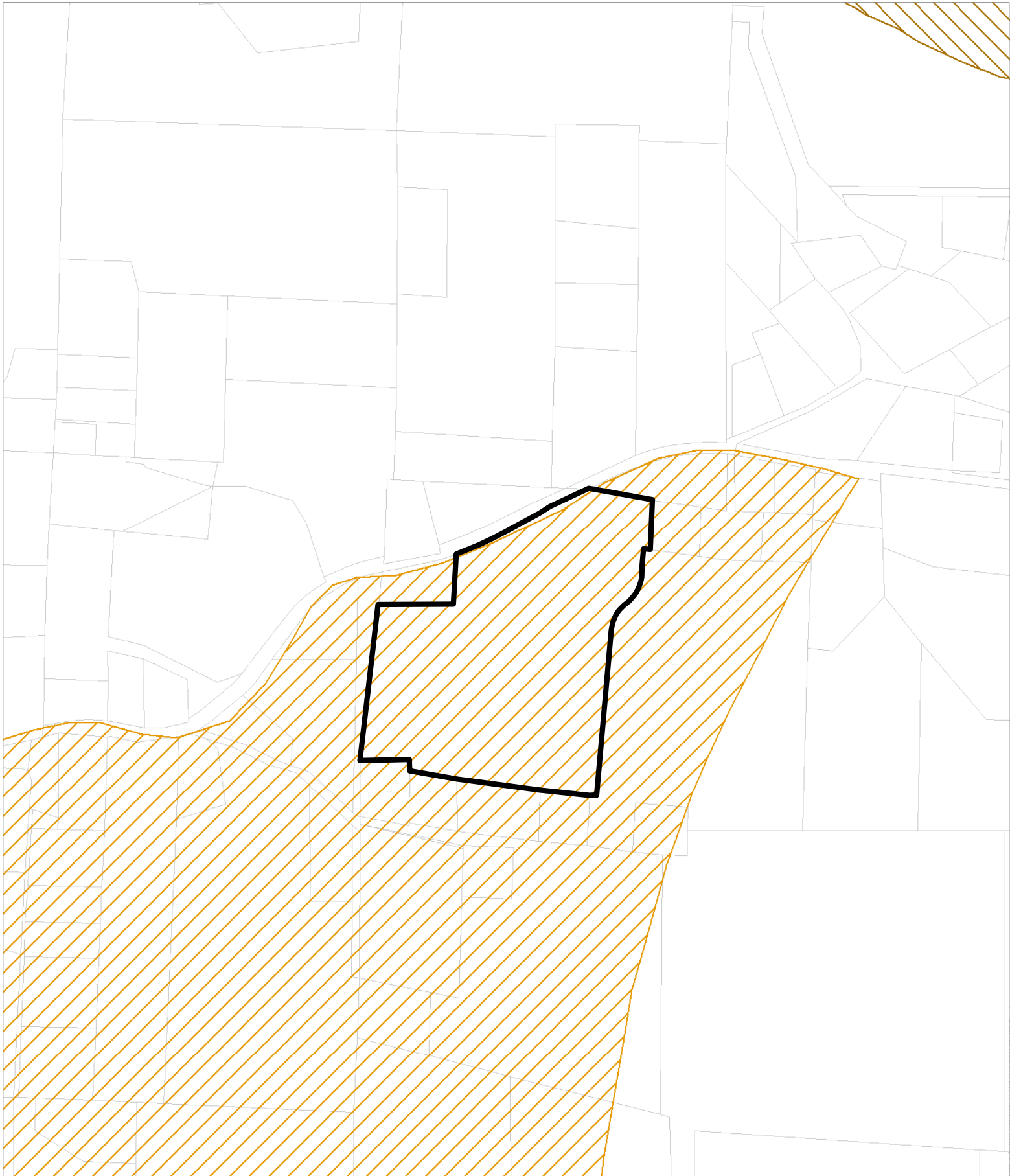


CASE: CDP 2020-0025
 OWNER: PAULSON, Bryan
 APN: 123-210-28
 APLCT: Bryan Paulson
 AGENT: John Johansen
 ADDRESS: 32505 Albion Ridge Road, Albion

-  Critical Water Areas
-  Marginal Water Resources
-  Critical Water Resources Bedrock

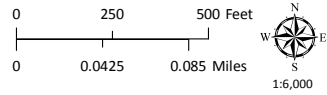
 Assessors Parcels

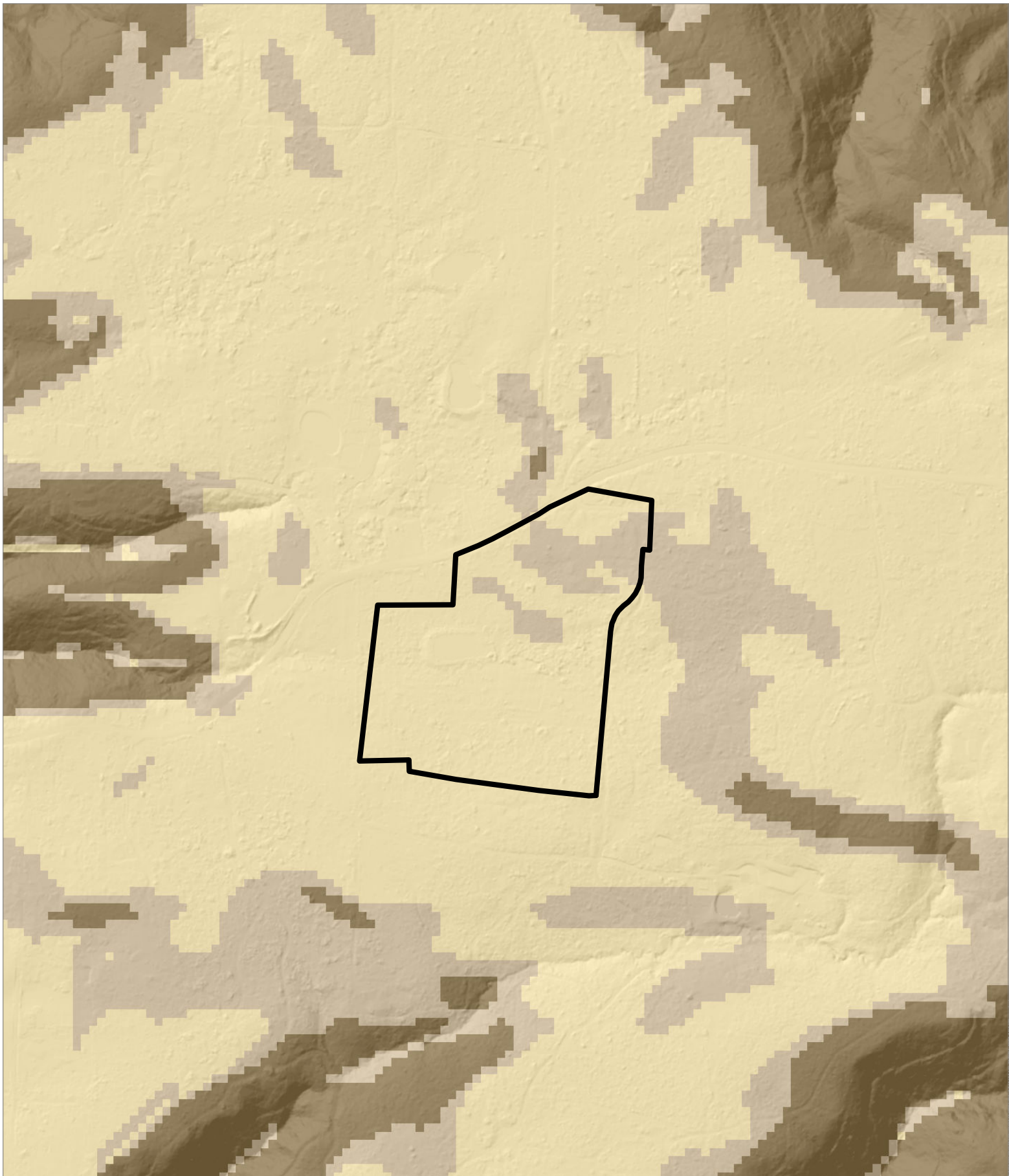




CASE: CDP 2020-0025
OWNER: PAULSON, Bryan
APN: 123-210-28
APLCT: Bryan Paulson
AGENT: John Johansen
ADDRESS: 32505 Albion Ridge Road, Albion

-  Highly Scenic Area
-  Highly Scenic Area (Conditional)
-  Assessors Parcels





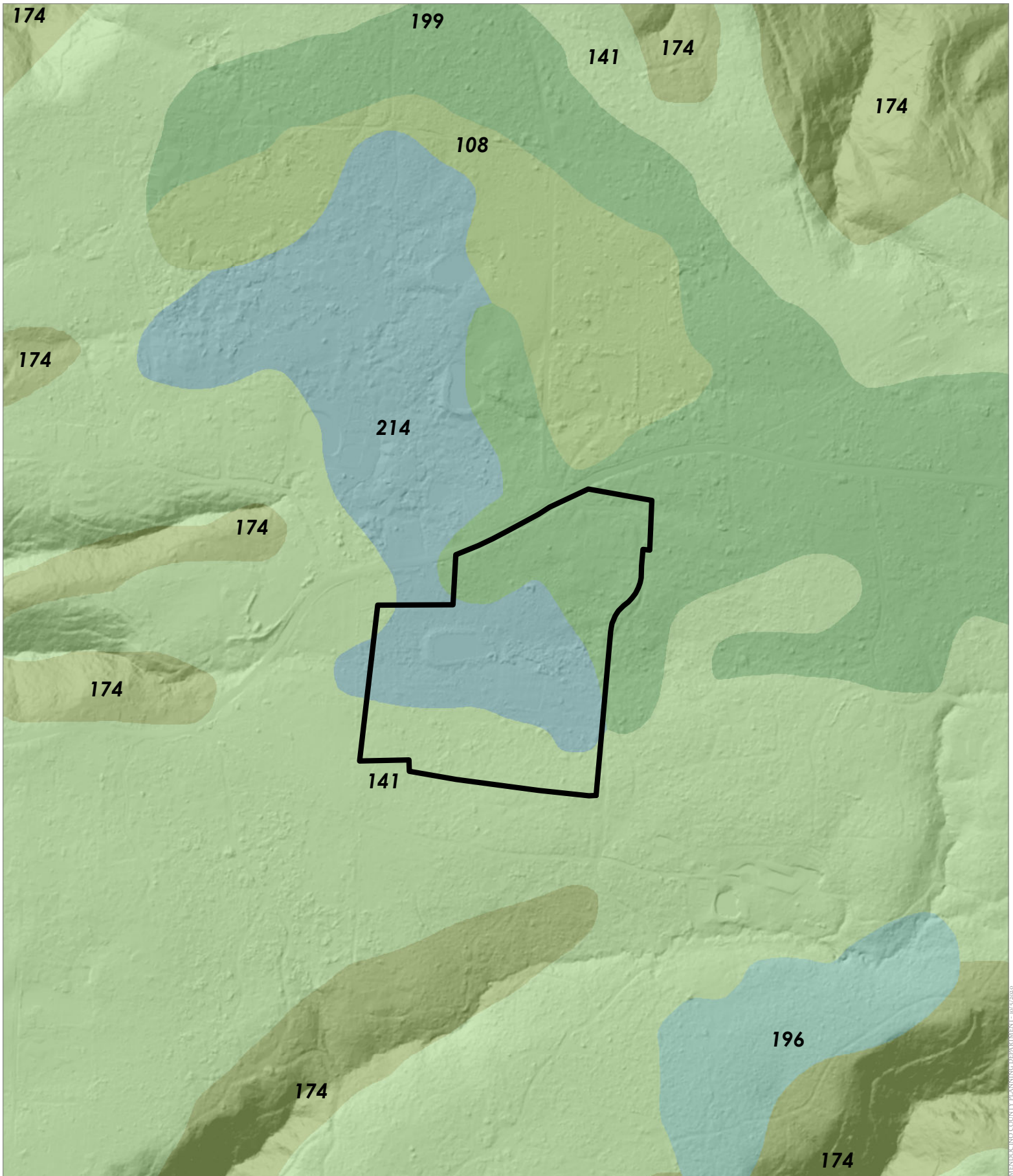
CASE: **CDP 2020-0025**
OWNER: **PAULSON, Bryan**
APN: **123-210-28**
APLCT: **Bryan Paulson**
AGENT: **John Johansen**
ADDRESS: **32505 Albion Ridge Road, Albion**

0° - 14°
15° - 32°
33° - 72°

0 250 500 Feet
0 0.0425 0.085 Miles
1:6,000

N
W
S
E

ESTIMATED SLOPE
ATTACHMENT Q



CASE: **CDP 2020-0025**

OWNER: **PAULSON, Bryan**

APN: **123-210-28**

APLCT: **Bryan Paulson**

AGENT: **John Johansen**

ADDRESS: **32505 Albion Ridge Road, Albion**

 Blacklock & Aborigine

 Shinglemill-Gibney Complex

 Bishop Pine

0 250 500 Feet

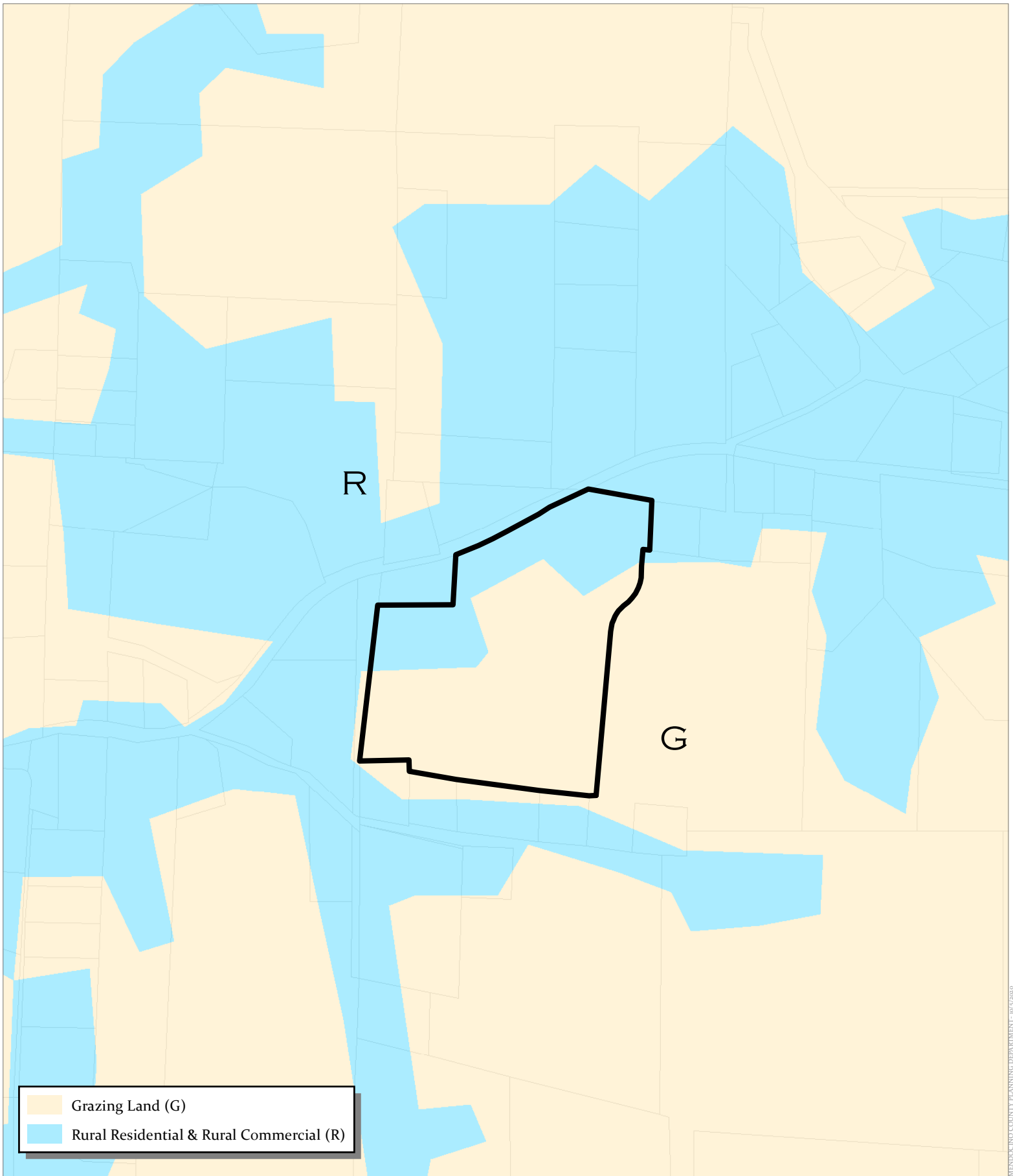
0 0.0425 0.085 Miles

1:6,000

N
W
E
S

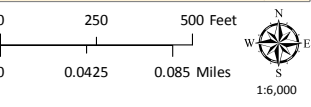
WESTERN SOIL CLASSES

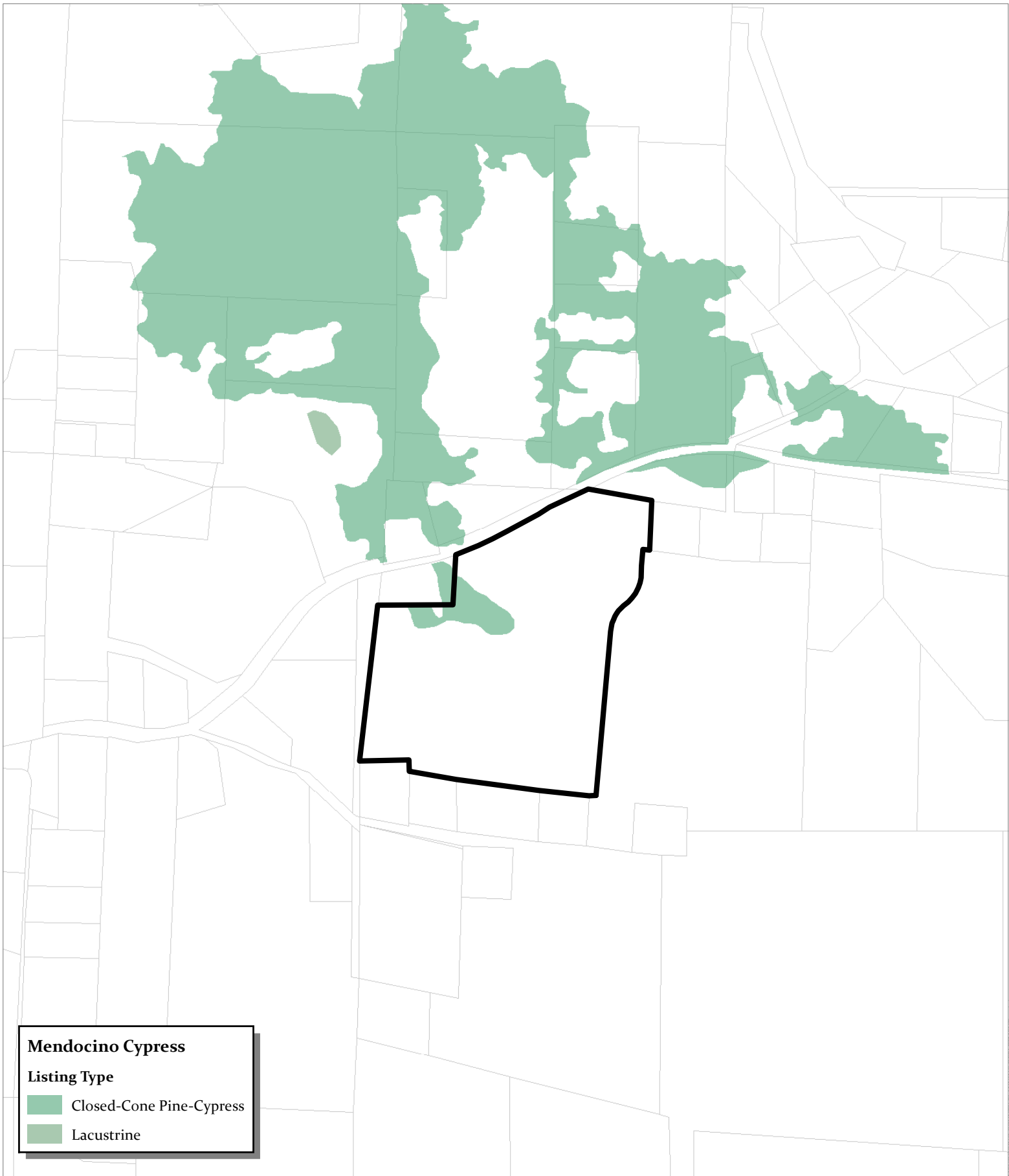
ATTACHMENT R



CASE: CDP 2020-0025
OWNER: PAULSON, Bryan
APN: 123-210-28
APLCT: Bryan Paulson
AGENT: John Johansen
ADDRESS: 32505 Albion Ridge Road, Albion

 Assessors Parcels





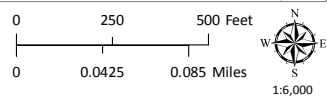
Mendocino Cypress

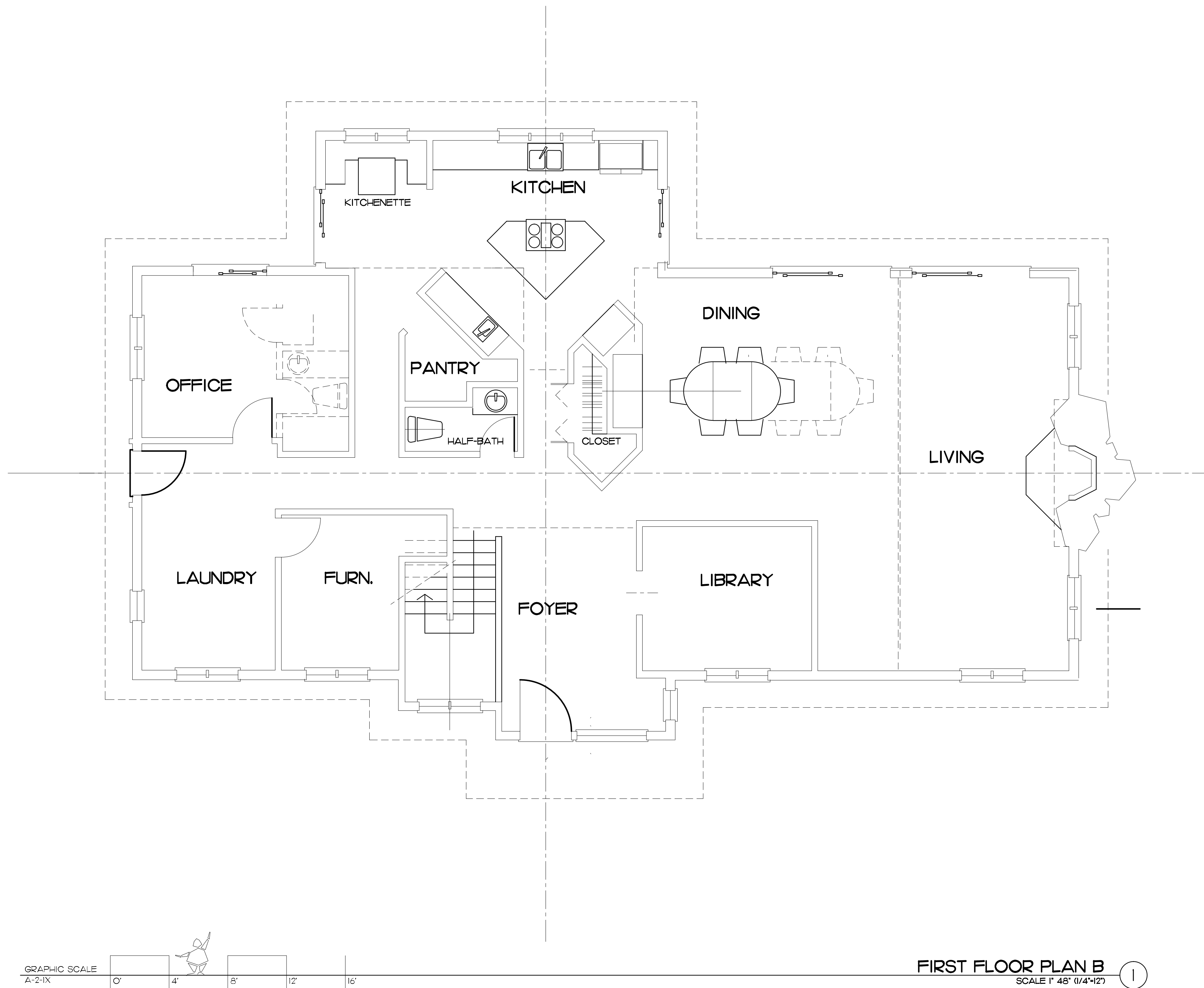
Listing Type

-  Closed-Cone Pine-Cypress
-  Lacustrine

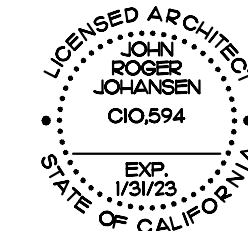
CASE: CDP 2020-0025
OWNER: PAULSON, Bryan
APN: 123-210-28
APLCT: Bryan Paulson
AGENT: John Johansen
ADDRESS: 32505 Albion Ridge Road, Albion

 Assessors Parcels





JOHN ROGER JOHANSEN/ARCHITECT
39950 S. ALBION RIVER ROAD, BOX 490
ALBION, CALIFORNIA 95403
j.ja@mcn.org
707 937 3487



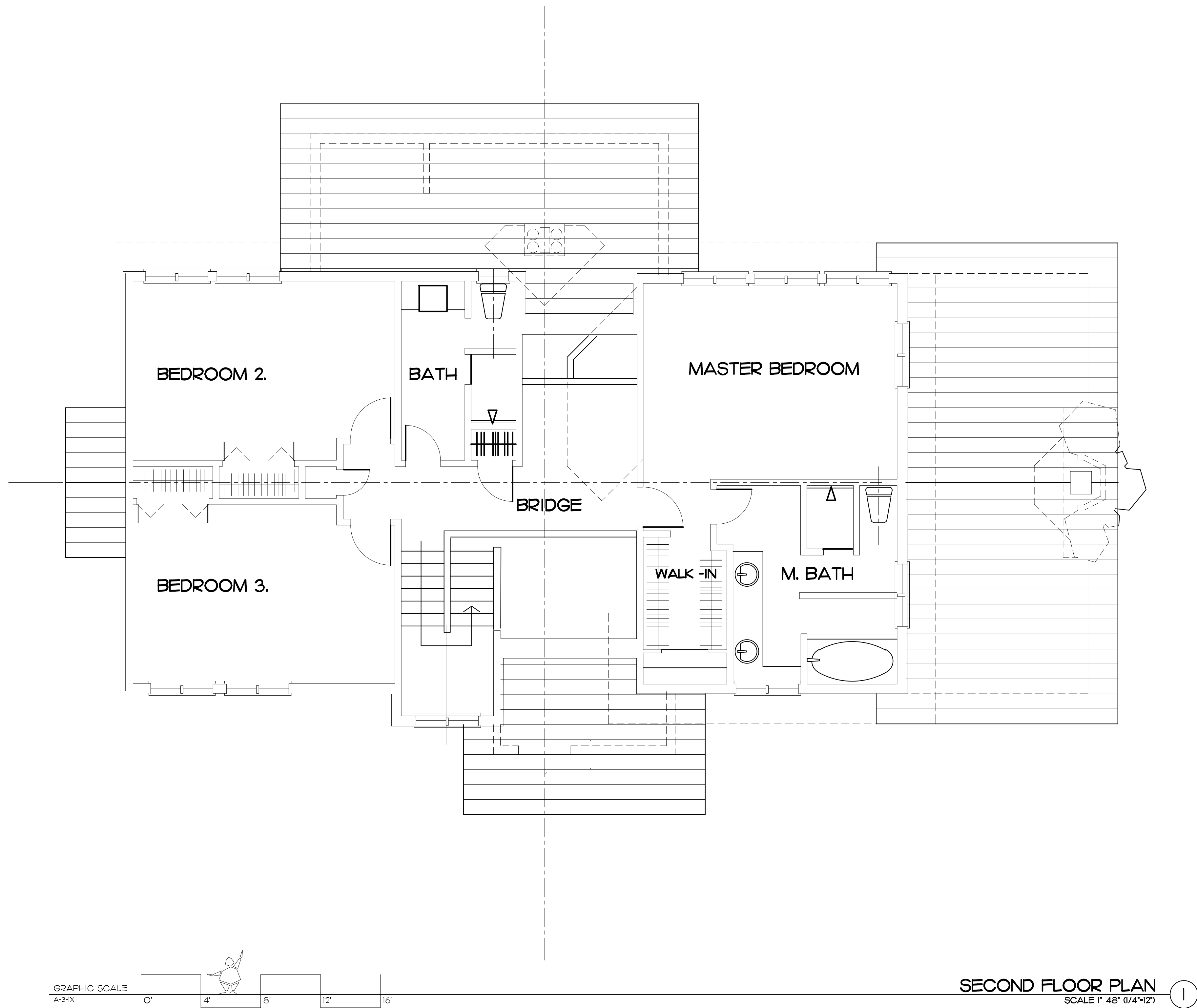
**Paulson
Residence**
Albion Ridge Road
Albion, California

**Future
Projects
Plans**
**Foundation
Plan**

3 AUGUST 2020
4 MARCH 2020
12 FEBRUARY 2020
5 DECEMBER 2019
18 JANUARY 2018
REVISION:
DATE: 21 NOVEMBER 2018
PROJECT NO.: 2001
DRAWN: JRJ
SCALE: 1" = 4'-0"
SHEET NO.:

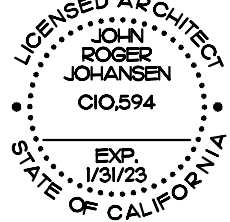
A.2

ATTACHMENT U



jja

JOHN ROGER JOHANSEN/ARCHITECT
33950 S. ALBION RIVER ROAD, BOX 490
ALBION, CALIFORNIA 95402
jja@mcn.org
707 937 3487



**Paulson
Residence**
Albion Ridge Road
Albion, California

Floor Plan

3 AUGUST 2020
4 MARCH 2020
12 FEBRUARY 2020
5 DECEMBER 2019
18 JANUARY 2018

REVISION:

DATE: 21 NOVEMBER 2018

PROJECT NO: 2001

DRAWN: JRJ

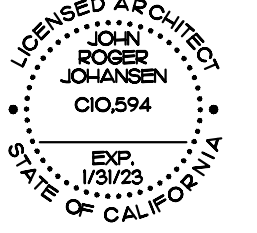
SCALE USED: 1" = 4'-0"

SHEET NO:

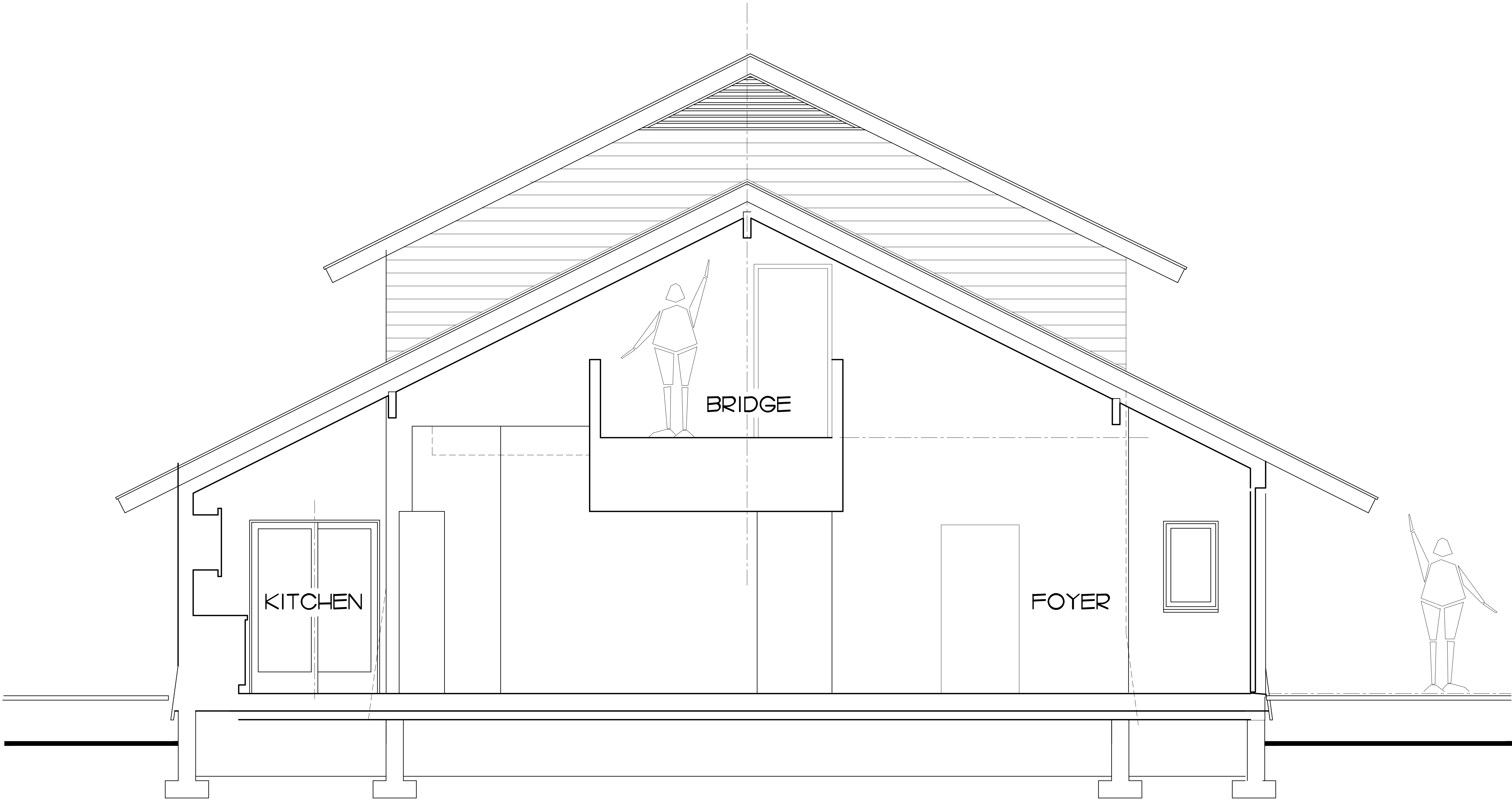
A.3

jija

JOHN ROGER JOHANSEN/ARCHITECT
33950 S. ALBION RIVER ROAD, BOX 490
ALBION, CALIFORNIA 95410
jija@mon.org
707 937 3487



**Paulson
Residence**
Albion Ridge Road
Albion, California



CROSSECTION THRU CENTERLINE OF RESIDENCE

SCALE 1" 48" (1/4"=12")

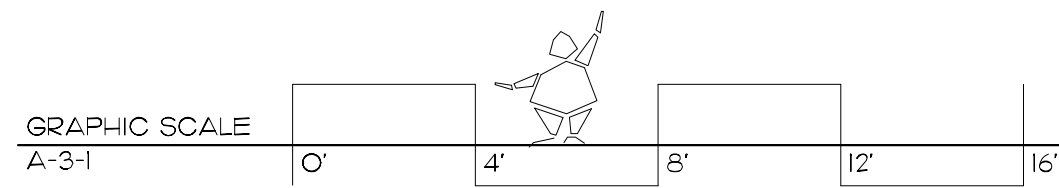
5

Crossections

3 AUGUST 2020
4 MARCH 2020
12 FEBRUARY 2020
5 DECEMBER 2019
18 JANUARY 2018
REVISION:
DATE: 21 NOVEMBER 2018
PROJECT NO.: 2001
DRAWN: J.R.J.
SCALE USED: 1" = 4'-0"
SHEET NO.:

A.4

ATTACHMENT W



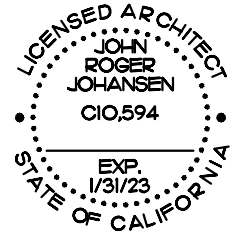
WEST EXTERIOR ELEVATION 5
SCALE 1" = 48" (1/4"=12')



CROSSECTION THRU CENTERLINE OF RESIDENCE 6
SCALE 1" = 48" (1/4"=12')

j r / a

JOHN ROGER JOHANSEN/ARCHITECT
33950 S. ALBION RIVER ROAD, BOX 490
ALBION, CALIFORNIA 95410
jrja@mrn.org
707 937 3487

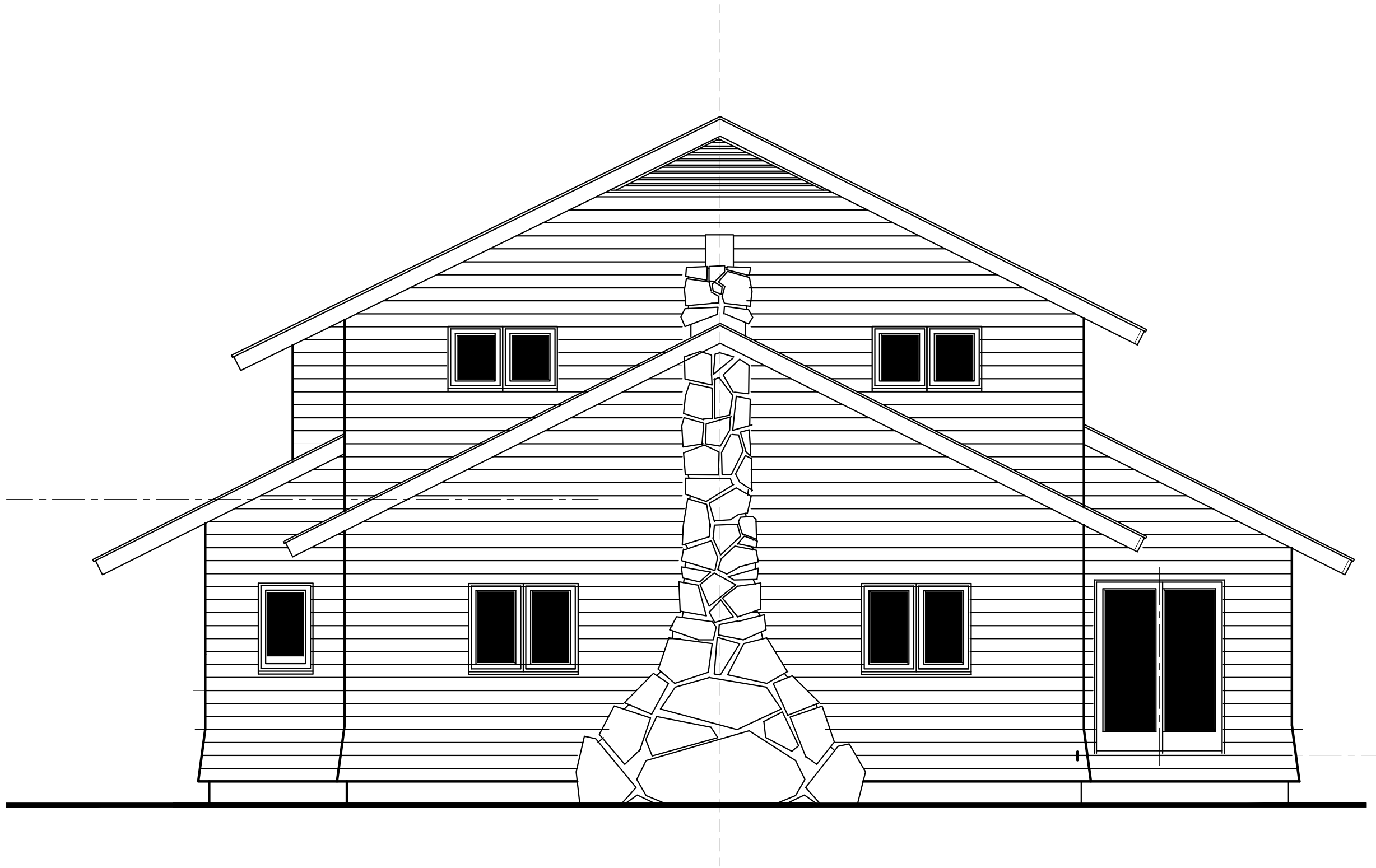


**Paulson
Residence**
Albion Ridge Road
Albion, California

**Exterior
Elevations**

REVISION: 3 AUGUST 2020
4 MARCH 2020
12 FEBRUARY 2020
5 DECEMBER 2019
18 JANUARY 2018
DATE: 21 NOVEMBER 2018
PROJECT NO.: 2001
DRAWN: JRJ
SCALE UON: 1" = 4'-0"
SHEET NO.:

A.5

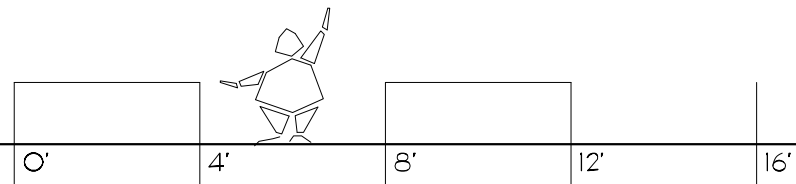


A-6-5X

SOUTH EXTERIOR ELEVATION 8



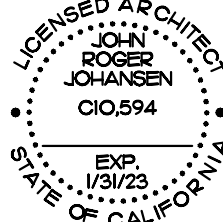
GRAPHIC SCALE
A-6-7X



EAST EXTERIOR ELEVATION 7
SCALE 1" = 48" (1/4"=12')

jir/a

JOHN ROGER JOHANSEN/ARCHITECT
33950 S. ALBION RIVER ROAD, BOX 490
ALBION, CALIFORNIA 95410
jrja@mcn.org
707 937 3487



**Paulson
Residence**
Albion Ridge Road
Albion, California

**Exterior
Elevations**

3 AUGUST 2020
4 MARCH 2020
12 FEBRUARY 2020
5 DECEMBER 2019
18 JANUARY 2018
REVISION: 21 NOVEMBER 2018
DATE: 2001
PROJECT NO.: JRJ
DRAWN: 1" = 4'-0"
SCALE: 1" = 4'-0"
SHEET NO.:

A.6



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

Mendocino Unit
17501 North Highway 101
Willits, CA 95490
(707) 459-7414
Website: www.fire.ca.gov

RECEIVED

AUG 23 2017

MENDOCINO UNIT

CAL FIRE File # 378-17

To be completed by CAL FIRE

-OFFICE USE ONLY-

STATE FIRE SAFE REGULATIONS APPLICATIONS FORM

Please complete the following and submit to the California Department of Forestry and Fire Protection (CAL FIRE). **See the attached Homeowner's Summary of Fire Prevention and Loss Reductions Laws to ensure your plans will meet the requirements.** If not, you will be required to propose and submit an exemption (Detailed in Item #19) for the Department's review. Failure to submit a proposed exemption when required will result in delays. CAL FIRE will strive to work with landowners who require an exemption, however, submitting an exemption in itself, does not guarantee it will be accepted by CAL FIRE.

1. Name, Mailing Address and Phone Number of Property Owner:

BRITAN FULSON
BOX 339
ALBION, CA 95410

Phone: 937 0492

2. Name, Mailing Address and Phone Number of Agent representing the Property Owner:

JOHN HANSEN
BOX 400
ALBION, CA 95410

Phone: 937 3487

Mail correspondence to:

☐ Owner OR ☒ Agent OR ☐ Pick-up at Howard Forest

3. Address/Location of proposed building site:

E ROAD SOUTH AT ALBION RIDGE RD.
ALBION, CA 95410

APN: 123.210.28

CONSERVATION IS WISE—KEEP CALIFORNIA GREEN AND GOLDEN

PLEASE REMEMBER TO CONSERVE ENERGY. FOR TIPS AND INFORMATION, VISIT "FLEX YOUR POWER" AT WWW.CA.GOV

ATTACHMENT Z



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

Mendocino Unit
17501 North Highway 101
Willits, CA 95490
(707) 459-7414
Website: www.fire.ca.gov



FIRE SAFETY REGULATIONS APPLICATION PACKAGE
INSTRUCTIONS FOR COMPLETION

To ensure that the California Department of Forestry and Fire Protection (CAL FIRE) can adequately identify which regulations apply to your project and/or respond to your inquiry we ask that you do the following;

- 1) Print neatly IN PEN or type application. Fill in ALL application information.
- 2) Be as thorough as possible within the space provided.
- 3) **Answer all questions-Failure to do so may result in your application being returned.**
- 4) Use the example in helping prepare your site plan on the provided 8-1/2 x 11" graph paper.
- 5) For residential dwellings, garages, and accessory buildings, do not supply architectural drawings, unless the size of the project requires it.
- 6) Subdivisions and parcel splits should include tentative parcel maps.
- 7) Show all existing and proposed roads, driveways, bridges, gates, setbacks, property lines and water systems and indicate distances between all buildings and property lines. Show widths, lengths, and steepness (in % grade) of proposed roads and driveways.
- 8) Make sure you have signed the application and mail or deliver to the address on the front page. Office hours are 8:00 A.M. to 5:00 P.M., Monday through Friday.
- 9) Your application will be held at the Howard Forest CAL FIRE Headquarters Office for pickup or mailed to: (1) The applicant/owner, or (2) Your agent, **PLEASE INDICATE WHICH YOU WOULD PREFER.** *Because of CAL FIRE's response to emergency incidents and other routine responsibilities, please allow up to two weeks for processing your application.*
- 10) Please make a copy of the completed application (with the attached "Conditions of Approval") for your files before submitting to Mendocino County Planning & Building Services. Contact the CAL FIRE Headquarters Office to Request a Final Inspection when you have **COMPLETED** the criteria outlined in your Conditions of Approval.

CONSERVATION IS WISE-KEEP CALIFORNIA GREEN AND GOLDEN

PLEASE REMEMBER TO CONSERVE ENERGY. FOR TIPS AND INFORMATION, VISIT "FLEX YOUR POWER" AT WWW.CA.GOV.

ATTACHMENT Z

Is it accessible, gate, locked? If so, gate combination or instructions to access:

ACCESSIBLE - YES

4. Type of Project – CHECK ONE

☐ Subdivision

Current acreage before split: _____

Number of new parcels to be created: _____

Acreage of newly created parcels: _____

☐ Use Permit

Describe your project, include dates, times, number of people, roads used or required, etc.

☒ Building Permit

☒ New building, ☐ Remodel, ☐ Class K, ☐ Replacement, ☐ Other

1500 Size in square feet of Single Family dwelling, if applicable.

Size in square feet of attached garage, if applicable.

1000 Size in square feet of proposed detached garage, if applicable.

1000 Size in square feet of proposed accessory building(s), if applicable.

3500 Size in square feet of other proposed structure, if applicable.

TOTAL SQUARE FOOTAGE

Briefly describe the type of structure you will be building:

SINGLE FAMILY - NO. FRAME

5. ☒ Yes ☐ No -- Is project location map attached showing access to the site?

6. ☒ Yes ☐ No -- Was the subject parcel created PRIOR to January 1, 1992?

If NO please answer a & b below:

a. ☐ Yes ☐ No -- Is the structure within ½-mile driving distance of a working fire hydrant?

b. ☐ Yes ☐ No -- Is the structure within a 5-mile driving distance of a year round fire station?

Set Back Standard- If YES to # 7 and NO to # 8, an exemption will be required.

7. ☒ Yes ☐ No -- Is the subject parcel 1 acre or larger? 1/2 - 3/4 acre
8. ☒ Yes ☐ No -- Will the proposed structure(s) be 30 ft. or more from ALL property lines?

Road and Driveway Standards - Roads or driveways deviating from the Standards will require an exemption.

9. ☒ Yes ☐ No -- Will your project require construction of a new road?
If so, how long in feet or miles? 500'
If so, what is the maximum grade(%)? 1%
10. ☐ Yes ☒ No -- Will your project require the extension of an existing road?
If so, how long in feet or miles? _____
If so, what is the maximum grade(%)? _____
11. ☒ Yes ☐ No -- Will your project require construction of a new driveway?
If so, how long in feet or miles? 50'
If so, what is the maximum grade(%)? 1%
12. ☐ Yes ☒ No -- Will your project require the extension of an existing driveway?
If so, how long in feet or miles? _____
If so, what is the maximum grade(%)? _____
13. If NO to 9-12 above, Describe the existing road/driveway:

14. Describe the turnout locations, their spacing, and the turnaround or hammerhead "T" related to your project and the standards ensure it meets the required standard or an exemption will be needed.

15. ☐ Yes ☒ No -- Are there existing bridges en route to the proposed project located on your property?
16. ☐ Yes ☒ No -- Will this project require any bridges to be constructed/installed?

Timber and Land Conversion Activities- FOR TIMBER RELATED QUESTIONS, PLEASE CALL 707-459-7440.

17. ☐ Yes ☒ No -- Will trees be cut and timber products sold, bartered, traded or exchanged?

If YES, may require a harvest permit from CAL FIRE Resource Management.

18. ☐ Yes ☒ No -- Will timberland be converted to non-timber growing use?

If YES, may require a harvest permit from CAL FIRE Resource Management.

Exemption Request

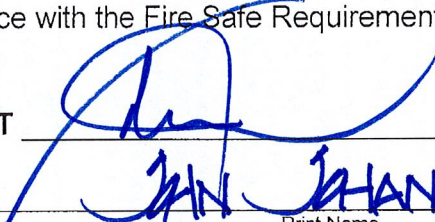
19. ☐ Yes ☒ No -- Are you requesting any exemptions to the Fire Safe Regulations?

If YES, attach a separate page identifying the applicable section of State Law pertinent to your request, material facts supporting the request, the details of the exemption or mitigation measures proposed, and a map showing the proposed location of the exemption or mitigation measure.

An exemption may be granted only if it is "necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions such as recorded historical sites" and if it "provides the same overall practical effect as these [fire safe] regulations towards providing defensible space." (Cal. Code Regs., tit. 14, §§ 1270.07, 1271.00.) An exemption may not allow avoidance of the standards. An exemption is an "alternative...that provides mitigation of the problem."

I hereby agree to maintain the property in compliance with the Fire Safe Requirements established in the Public Resources Code Section 4290.

SIGNATURE OF PROPERTY OWNER OR AGENT



Print Name



703 North Main Street, Fort Bragg CA 95437
ph: 707-964-2537 fx: 707-964-2622
www.WCPlan.com

August 3, 2021

Bryan Paulson
3500 Albion Ridge D Road
Albion, CA 95410

RE: Biological report building envelope consistency
32505 Albion Ridge Road
Albion, CA 95410
APN: 123-210-28-00

Dear Mr. Paulson,

Wynn Coastal Planning and Biology performed a biological investigation at 32505 Albion Ridge Road, Albion, CA (APN 123-210-28-00; **Figure 1**) to address the potential for the presence of potential Environmentally Sensitive Habitat Areas (ESHAs) to affect a Coastal Development Permit process. Recently I was asked to follow up on an inquiry by Mendocino County Planner, Matt Goines, to ensure that the project that was applied for is consistent with the findings of our biological report. At the time we conducted our investigation the exact layout of the proposed development was not yet decided upon. We provided you with a map with a recommended building envelope (**Figure 2**) within which any configuration of development would avoid all potential ESHA habitat by at least 100ft. The map we provided included a configuration and location of a residence that was thought to be that desired at the time we made the map.

John Johansen has provided me with a map of the currently proposed development, which has a somewhat different configuration, including a change from a one story residence to a two story residence. I've also updated our map with the location of some existing development, chiefly the existing septic configuration, the location of which was updated to depict presumably more accurate information provided by your design team.

The size, shape and number of stories of the proposed residence should not affect the consistency of the project with WCPB's biological work. As before, any configuration within our recommended envelope will avoid all potential ESHAs by at least 100ft. I've included a map (**Figure 3**) showing the currently proposed development configuration in a location where it should be relatively easy to permit because it avoids all potential ESHAs by at least 100ft. If a different location that is outside of the recommended envelope is desired, then additional biological studies and analysis would be necessary. If the development is proposed within the recommended building envelope, however, no additional studies are recommended, other than those typically necessary just prior to development, such as special status amphibian and nesting bird surveys. Because animals can move into and out of areas, surveys conducted for amphibians and nesting birds are typically performed within two weeks of commencing development to ensure they are not present when construction begins.

I hope this helps. Please let me know if you have additional questions .

Sincerely,

A handwritten signature in black ink, appearing to read "Asa B Spade".

Asa B Spade, Senior Biologist
Wynn Coastal Planning

Encl: n/a

CC: John Johansen, Architect

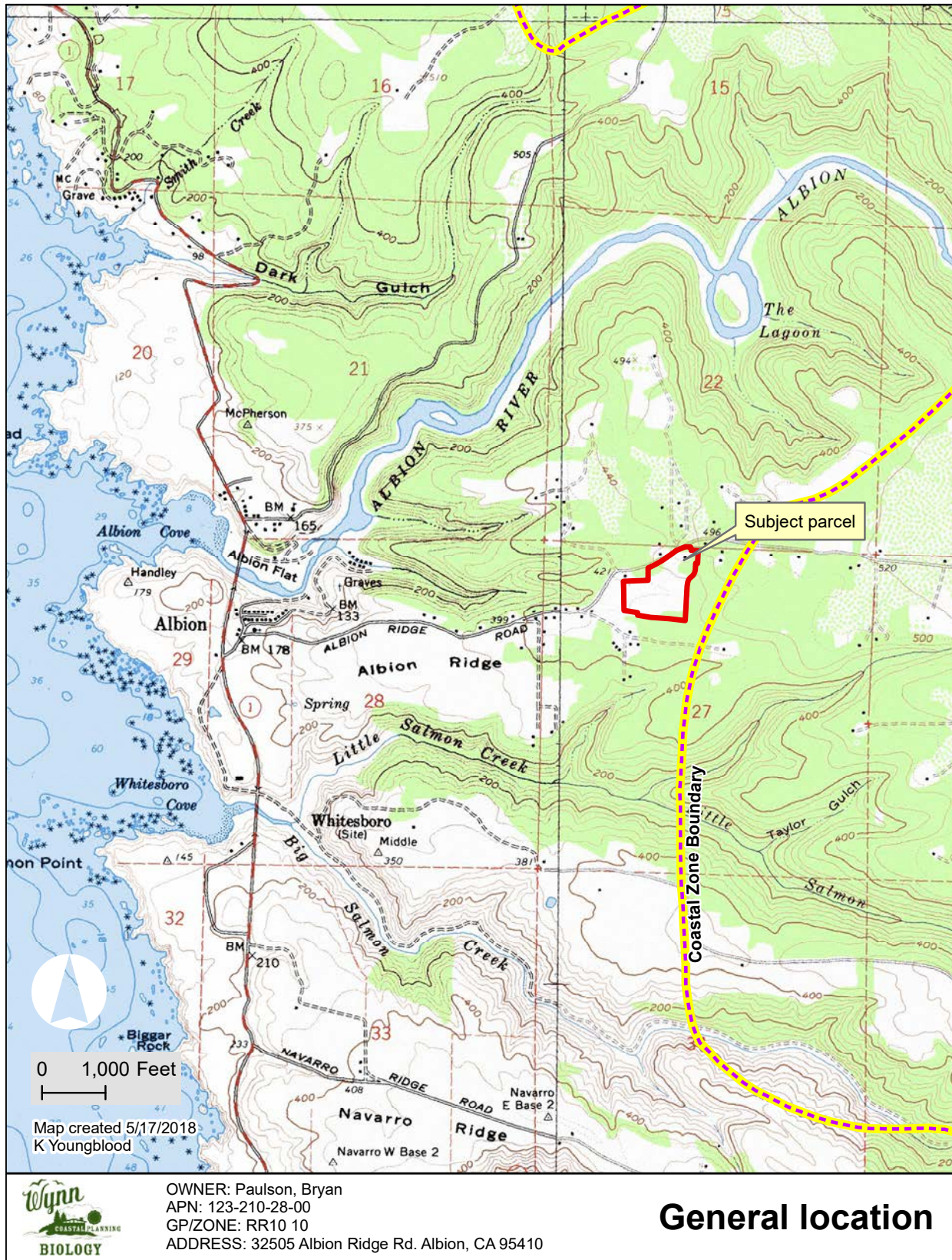
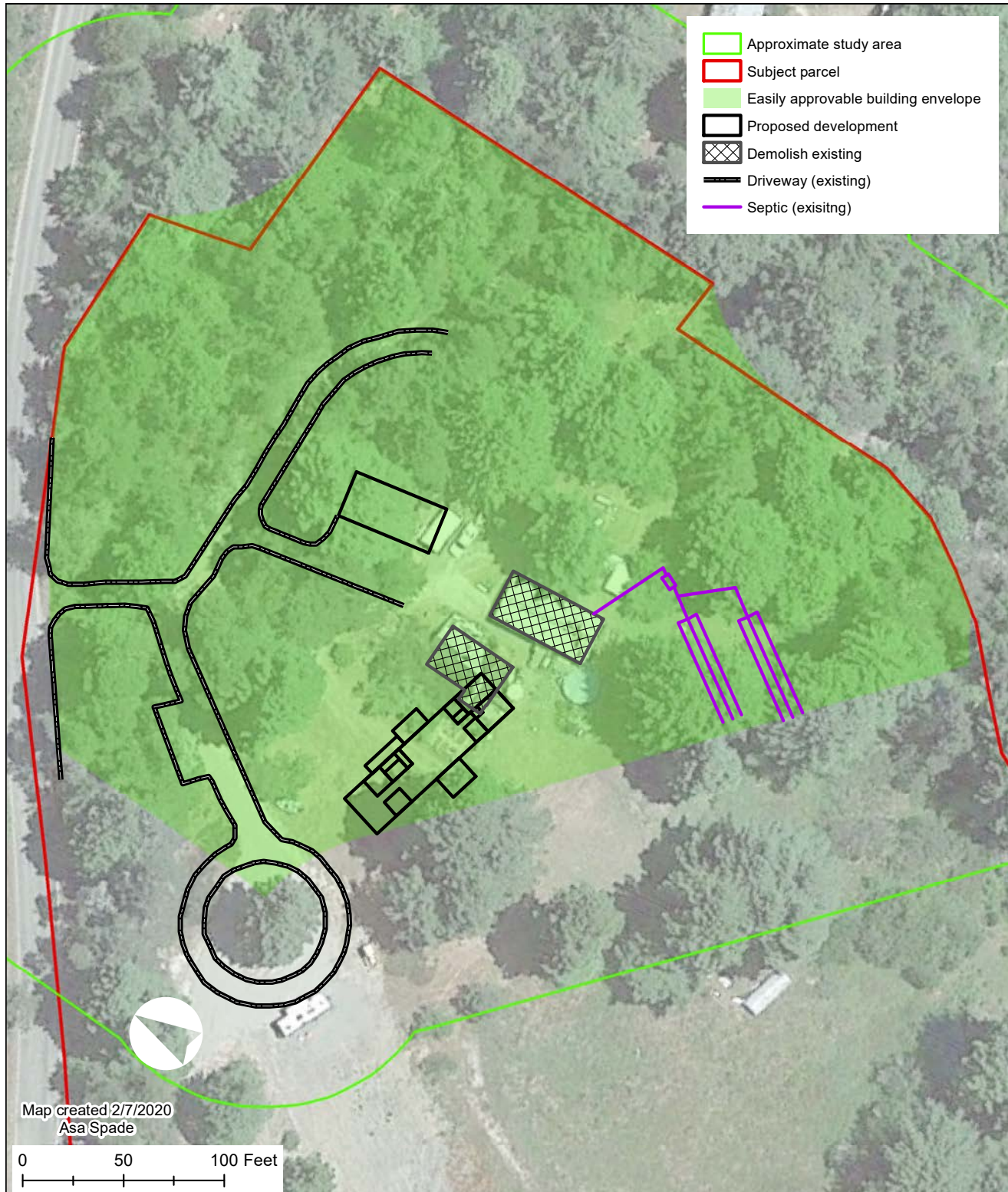


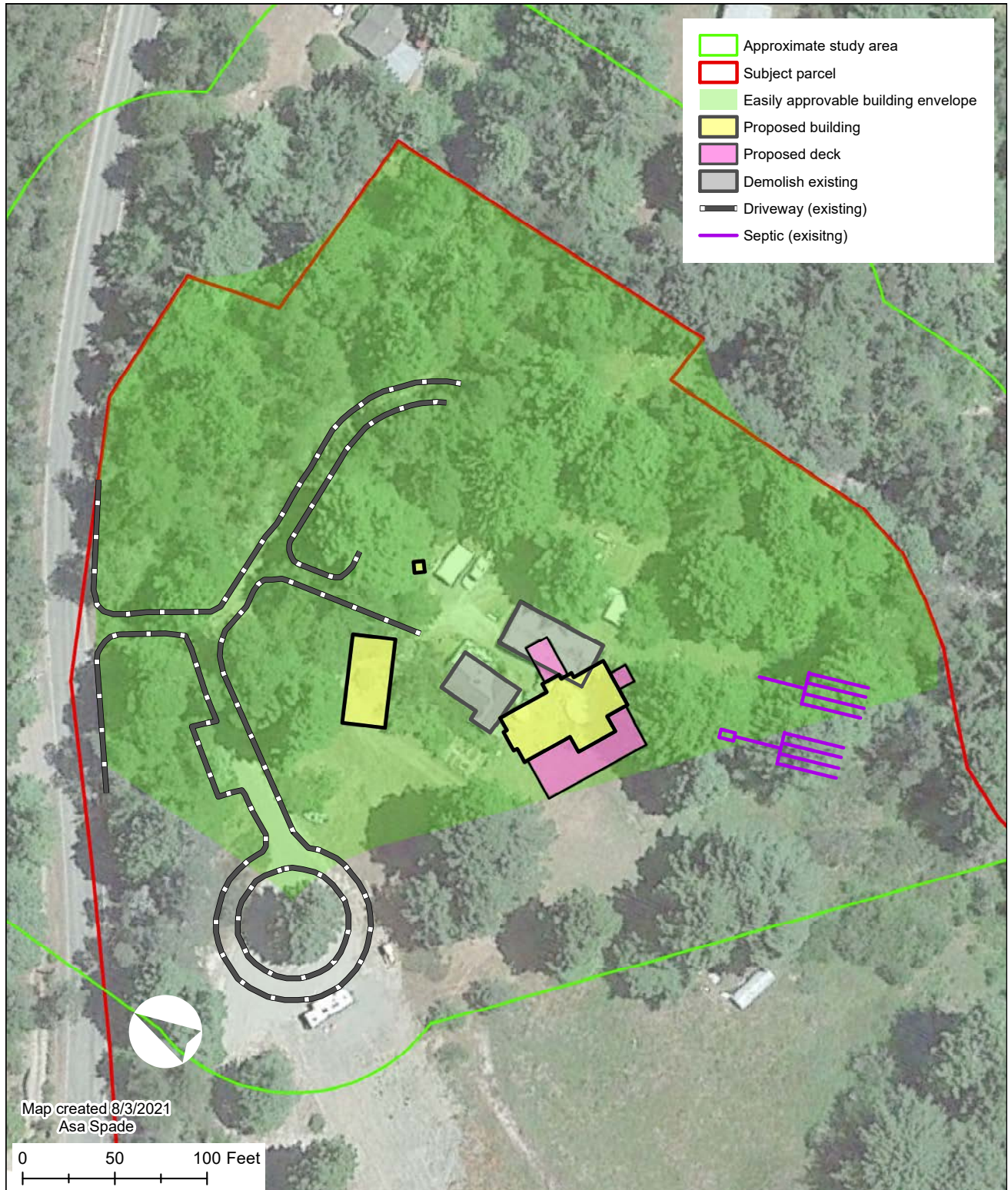
Figure 1. Study area map.



OWNER: Paulson, Bryan
APN: 123-210-28-00
GP/ZONE: RR10 10
ADDRESS: 32505 Albion Ridge Rd. Albion, CA 95410

Building Envelope Greater than 100 Feet from any ESHA

Figure 2. Recommended building envelope for proposal that will avoid potential ESHA by at least 100ft with previous version of proposed development overlaid..



OWNER: Paulson, Bryan
 APN: 123-210-28-00
 GP/ZONE: RR10 10
 ADDRESS: 32505 Albion Ridge Rd. Albion, CA 95410

Development Envelope Map

Figure 3. WCPB recommended building envelope with currently proposed development overlaid.

BIOLOGICAL SCOPING, WETLAND DELINEATION & BOTANICAL SURVEY REPORT

for
32505 Albion Ridge Road
Albion, CA 95410
APN 123-210-28-00
Mendocino County

Property Owners:
Bryan Paulson
3500 Albion Ridge D Rd.
Albion, CA 95410



Report Prepared By:
Asa Spade, Senior Biologist
Wyatt Dooley, Biologist

February 10, 2020

Wynn Coastal Planning & Biology
703 North Main Street, Fort Bragg CA 95437
ph: 707-964-2537 fx: 707-964-2622
www.WCPlan.com

1. PROJECT SUMMARY	1
2. PROJECT DESCRIPTION	1
3. STUDY AREA DESCRIPTION.....	5
3.1. General Site Description	5
3.2. Land-Use History.....	5
3.3. Topography and Soils.....	5
3.4. Climate and Hydrology	5
3.5. Vegetation and Natural Communities.....	5
3.6. Adjacent Lands.....	7
3.7. Existing Development	7
4. SURVEY METHODOLOGY	7
4.1. Scoping Tables	7
4.2. Field Surveys	8
5. SURVEY RESULTS	11
5.1. Plants.....	11
5.2. Plant Communities.....	11
5.2.1. Redwood forest alliance (<i>Sequoia sempervirens</i> forest alliance (G3 S3.2))	11
5.2.2. Broom scrub (<i>Cytisus scoparius</i> shrubland semi-natural alliance)	11
5.2.3. Lawn and Landscaping	12
5.3. Wildlife – Potential Occurrences.....	12
5.3.1. Invertebrates	13
5.3.2. Fish	13
5.3.3. Amphibians.....	13
5.3.4. Birds.....	14
5.3.5. Mammals.....	14
6. MITIGATION AND AVOIDANCE MEASURES	14
6.1. Potential Impact 1: Potential Impact to Birds	15
6.1.1. Measure 1a: Seasonal Avoidance	15
6.1.2. Measure 1b: Nest Avoidance.....	15
6.1.3. Measure 1c: Construction activities during daylight hours.....	15
6.2. Potential Impact 2: Potential Impact to Bats	15
6.2.1. Measure 2a: Pre-construction surveys for bats.....	15
6.2.2. Measure 2b: Construction activities during daylight hours	16
6.3. Potential Impact 3: Potential Impact to Soil and Vegetation	16
6.3.1. Measure 3b: Limit ground disturbing construction to dry season.....	16
6.4. Potential Impact 4: Potential Impact to Special Status Amphibians in Upland Areas.....	16
6.4.1. Measure 4a: Contractor education	16
6.4.2. Measure 4b: Pre-construction search	16
6.4.3. Measure 4c: Careful debris removal	16
6.4.4. Measure 4e: Construction activities during daylight hours.....	16
6.4.5. Measure 4f: Limit ground disturbing construction to dry season	16
6.4.6. Measure 4g: No construction during rain event.....	17
6.5. Potential Impact 5: Sonoma Tree Voles	17
6.5.1. Measure 5a: Sonoma tree vole survey.....	17
6.6. Potential Impact 6: Invasive plants and landscaping.....	17

6.6.1. Measure 6b: Plant native vegetation	17
7. DISCUSSION.....	17
8. REFERENCES	18
9. INVESTIGATOR BIOGRAPHIES.....	19

Figure 1. Location of subject parcel APN 123-210-28-00.....	2
--	----------

Figure 2. Proposed development in relation to the parcel and focused study area.....	3
---	----------

Figure 3. Building envelope within which proposed development should be approvable through an easier process because it is greater than 100ft from any potential ESHA.	4
--	----------

Figure 4. Plant community and vegetation map.	6
---	----------

Figure 5. Special status flora reported to CDFW in the proximity of the study area.....	9
--	----------

Figure 6. Special status fauna reported to CDFW in the proximity of the study area and recorded in the CNDDDB database.....	10
--	-----------

Figure 7. Scotch broom community surrounded by redwood forest and the residence's mowed lawn.	12
---	-----------

Figure 8. Lawn surrounding the existing residence.	12
--	-----------

Table 1 Months surveys are or are not needed for birds and bats.	16
--	-----------

Appendix A	USDA NRCS – Custom Soil Resource Report
Appendix B	USFWS National Wetlands Inventory Map
Appendix C	Scoping Lists
	Ranking Definitions
	Table 1: Special Status Plants
	Table 2: Special Status Plant Alliances and Communities Scoping List
	Table 3: Special Status Fauna Scoping List
Appendix D	Floristic List
Appendix E	ESHA Definitions

1. PROJECT SUMMARY

A biological survey was conducted on parcel APN 123-210-28-00 by Wynn Coastal Planning & Biology to locate potential Environmentally Sensitive Habitat Areas (ESHAs) - special status plants and communities, wetlands and riparian areas, and special status animals and/or their habitats and to determine if they would be directly or indirectly impacted by the proposed development. The proposed development consists of:

Removing an abandoned building, removing the existing single-family residence and building a new single-family residence in the same area, build a detached garage, and connection to existing infrastructure.

The subject parcel (**Figure 1**) is located 1.3 miles to the west of the town of Albion. The parcel can be accessed via Albion Ridge Road. The parcel is approximately 19.7 acres in size. The focused study area encompassed approximately 5.5 acres on the eastern side of the parcel surrounding the existing buildings and infrastructure and includes all areas within 100ft of proposed project components.

Wynn Coastal Planning & Biology's staff biologists conducted floristic and potential ESHA surveys on May 5, May 31, July 9, 20, and 26, 2018, for a total of 18.4 person hours. No potential ESHAs were present within the study area, according to the definitions of the California Coastal Act (CCA) and Mendocino County Local Coastal Plan (LCP).

This analysis has been performed by Wynn Coastal Planning & Biology, and is the culmination of our professional opinion, research, and data collection. The County of Mendocino (County), California Department of Fish and Wildlife (CDFW), and U.S. Fish and Wildlife Service (USFWS) should also be consulted regarding this project to obtain all necessary permits and obtain their concurrence with our findings and recommendations, and to make recommendations of their own, including agreement of the boundaries of the sensitive areas and appropriate avoidance and protective measures.

2. PROJECT DESCRIPTION

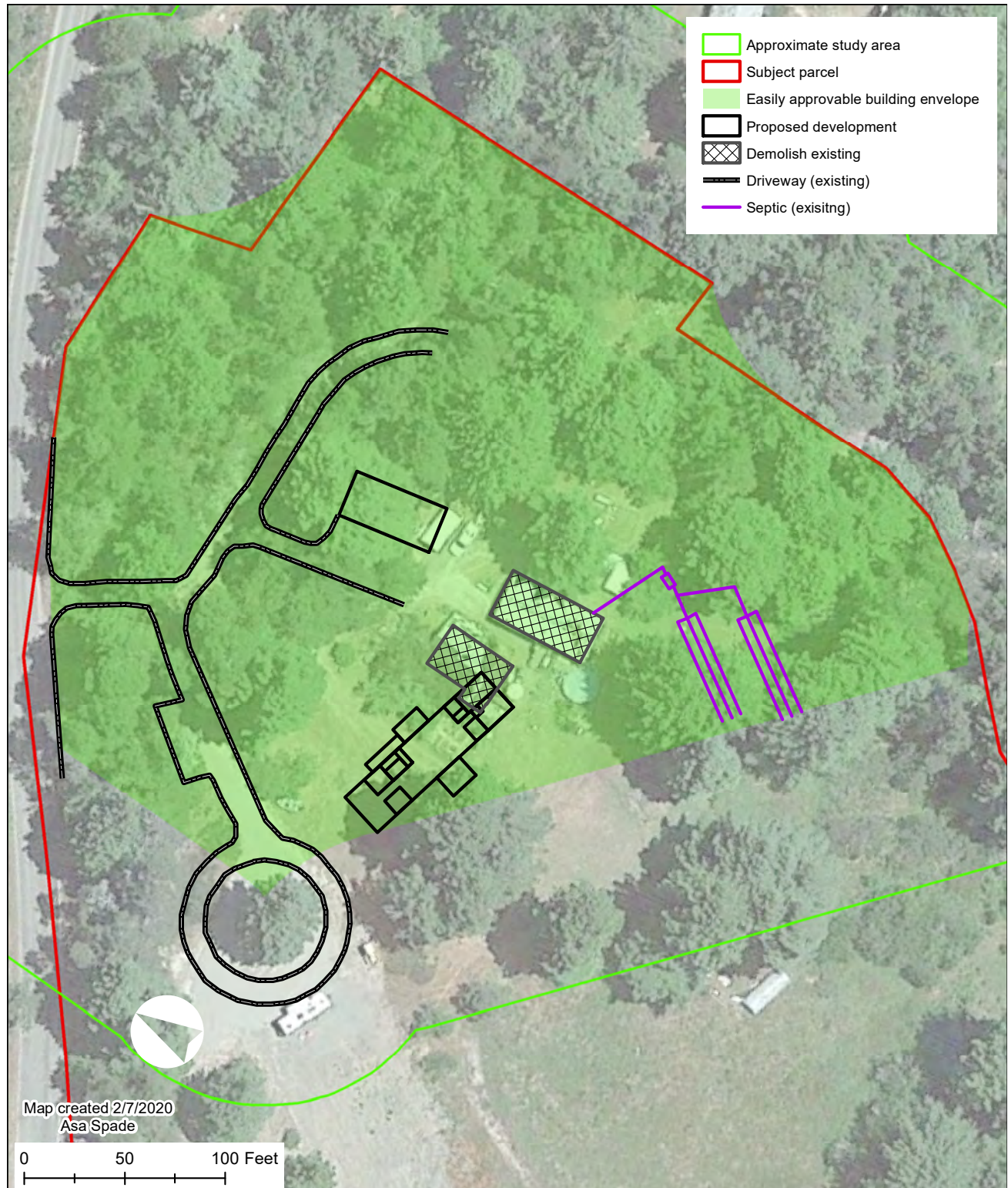
Removal of an abandoned building, removal of the existing single-family residence and construction of a new single-family residence in the same area, construction of a detached garage, and connection to existing infrastructure (**Figure 2**). At the time this report was completed the applicant was still contemplating the final location and position of the proposed buildings. **Figure 3** is a map showing the building envelope within which project components could be moved and still be more than 100ft from any potential ESHA or unsurveyed area. If development is proposed outside this envelope then additional surveys or reporting may be required.



OWNER: Paulson, Bryan
APN: 123-210-28-00
GP/ZONE: RR10 10
ADDRESS: 32505 Albion Ridge Rd. Albion, CA 95410

Location Map

Figure 1. Location of subject parcel APN 123-210-28-00.



OWNER: Paulson, Bryan
APN: 123-210-28-00
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Building Envelope Greater than 100 Feet from any ESHA

Figure 3. Building envelope within which proposed development should be approvable through an easier process because it is greater than 100ft from any potential ESHA.

3. STUDY AREA DESCRIPTION

3.1. General Site Description

The parcel is 19.7 acres in size, and is located east of the town of Albion. The focused study area within the parcel was comprised of second growth redwood forest. The area directly surrounding the proposed development was landscaping and mowed lawn.

3.2. Land-Use History

Archival aerial imagery shows that a single-family residence occurred on the parcel and that the majority of the parcel was forest and open meadows.

3.3. Topography and Soils

The elevation of the study area is about 460 feet above sea level. One soil type has been mapped by the Natural Resource Conservation Service in the study area: Shinglemill-Gibney complex, 2 to 9% slopes. Shinglemill-Gibney complex, 2 to 9% slopes, is considered a deep and poorly draining soil. Shinglemill-Gibney complex, 2 to 9% slopes, is listed in the 2015 NRCS National Hydric Soils List, due to the inclusion of ~45% Shinglemill soils, ~5% Tregoning soils, and ~5% Tropaquepts soils within the complex. (USDA Natural Resource Conservation Service, 2017; **Appendix A**). It should be noted that when a given soil is listed on the National Hydric Soils List as a hydric soil, that does not necessarily mean a wetland is present. Soil complexes are mapped at a coarse resolution and contain a number of components, any one of which may or may not be hydric, and may or may not be present in the particular mapped location.

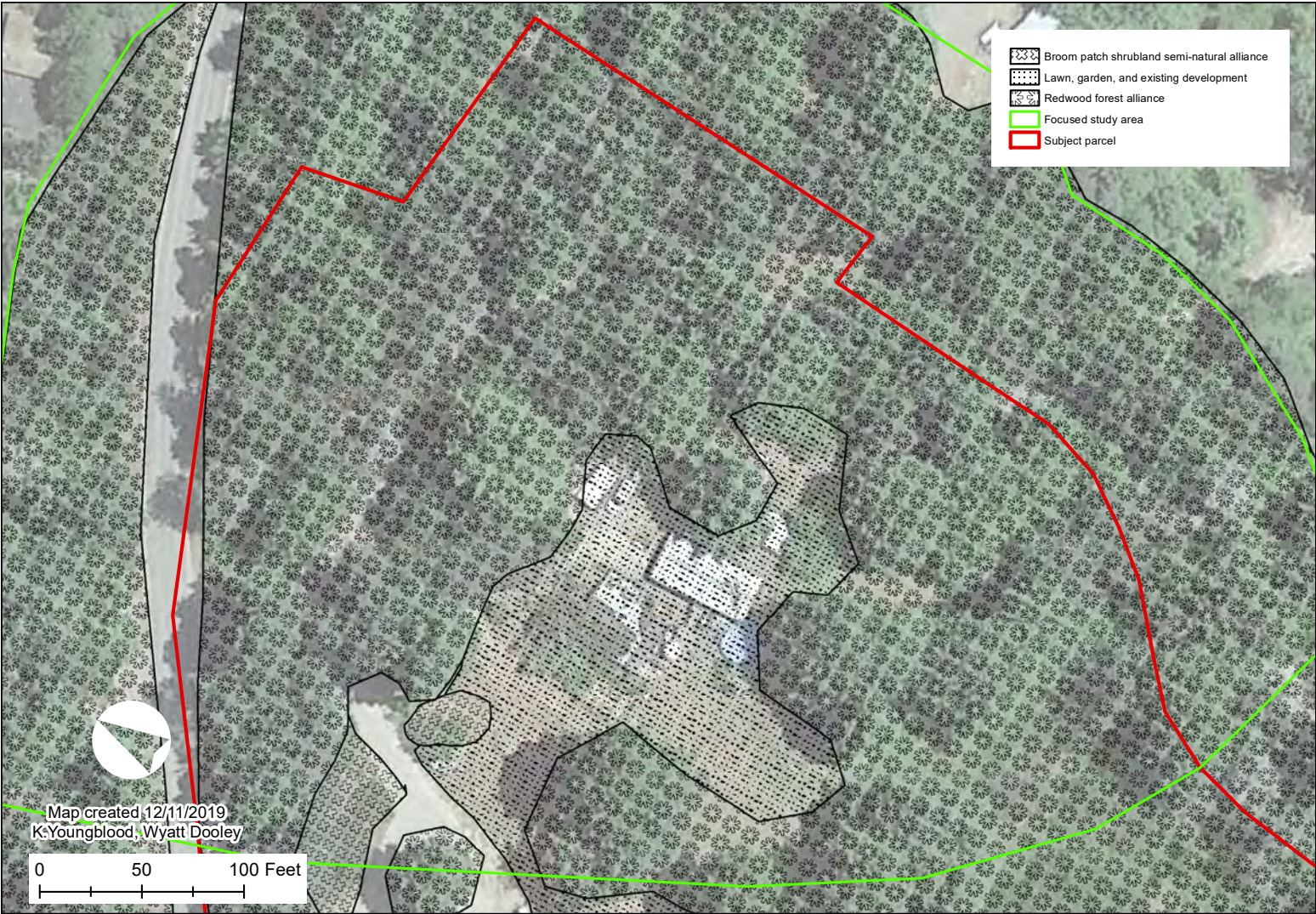
3.4. Climate and Hydrology

The Mendocino Coast has a Mediterranean climate with average annual precipitation of 40.24 inches (WRCC, Station Fort Bragg 5N, average for years 1895-2016), with the majority of rain occurring in winter months (November through March).

The USFWS National Wetlands Inventory was consulted and does not show any hydrologic features on the subject parcel (**Appendix B**).

3.5. Vegetation and Natural Communities

The majority of the focused study area was vegetated with second growth redwood forest (**Figure 3**). Areas surrounding the pre-existing development contained planted shrubs and mowed grass. Invasive Scotch broom (*Cytisus scoparius*) was also present in some locations.



 OWNER: Paulson, Bryan
APN: 123-210-28-00
GP/ZONE: RR10 10
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Plant Community & Vegetation Map

Figure 4. Plant community and vegetation map.

3.6. Adjacent Lands

Lands surrounding the study area include land and parcels of similar size; some of which have single family residences, with others being undeveloped. Undeveloped areas appear mainly to be redwood forest with patches of Mendocino cypress woodland. No Mendocino cypress woodland was present within the focused study area. Across the street from the subject parcel is a substation of the Albion/Little River fire department.

3.7. Existing Development

A gravel driveway and turn around is located on the property with a single-family residence and several abandoned buildings.

4. SURVEY METHODOLOGY

4.1. Scoping Tables

Scoping tables were created for the special-status plant species and wildlife with the potential to occur in the study area by reviewing the most up-to-date species lists for the California Department of Fish and Wildlife (CDFW), California Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNPS).

For purposes of this evaluation, special-status plant species are vascular plants that are (1) designated as rare, threatened, or endangered by the state or federal governments; or (2) are proposed for rare, threatened, or endangered status; and/or (3) are state or federal candidate species, and/or (4) considered species of concern by the USFWS and/or (5) are included on the California Native Plant Society (CNPS) List 1A, 1B, & 2.

The California Natural Diversity Database (CNDDDB) was reviewed for records within approximately 5 miles of the study area. The CNDDDB is a database consisting of historical observations of special-status plant species, wildlife species, and natural plant communities. Because the CNDDDB is limited to reported sightings, it is not a comprehensive list of plant species that may occur in a particular area. However, it is useful in refining the list of special-status plant species that have the potential to occur on a particular site. **Figure 5 & Figure 6** depict CNDDDB resources recorded near the Project Site.

A database search was performed using the CNPS *Electronic Inventory*, which allows users to query the *Inventory of Rare and Endangered Plants of California* using a set of search criteria (e.g., quad name, habitat type). A list of special-status plant species with the potential to occur on the site was developed through interpretation of the CNDDDB and CNPS query results. The biological scoping tables with special status resources potential occurrences in the study area are presented in **Appendix C: Tables 1, 2, and 3**. While directed by query results, surveys were not restricted only to those species indicated by this literature review. Field surveys and subsequent reporting were comprehensive and floristic in nature.

Additional information, (e.g. morphological characteristics, range, habitat and bloom period) was collected for each of the special-status plant species that had the potential to occur within the study area. Wynn Coastal Planning & Biology's staff botanist reviewed these characteristics for each of the plants on the scoping list prior to initiating fieldwork.

The botanical survey of the study area was conducted primarily adhering to the protocol described by the California Department of Fish and Wildlife in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (2018).

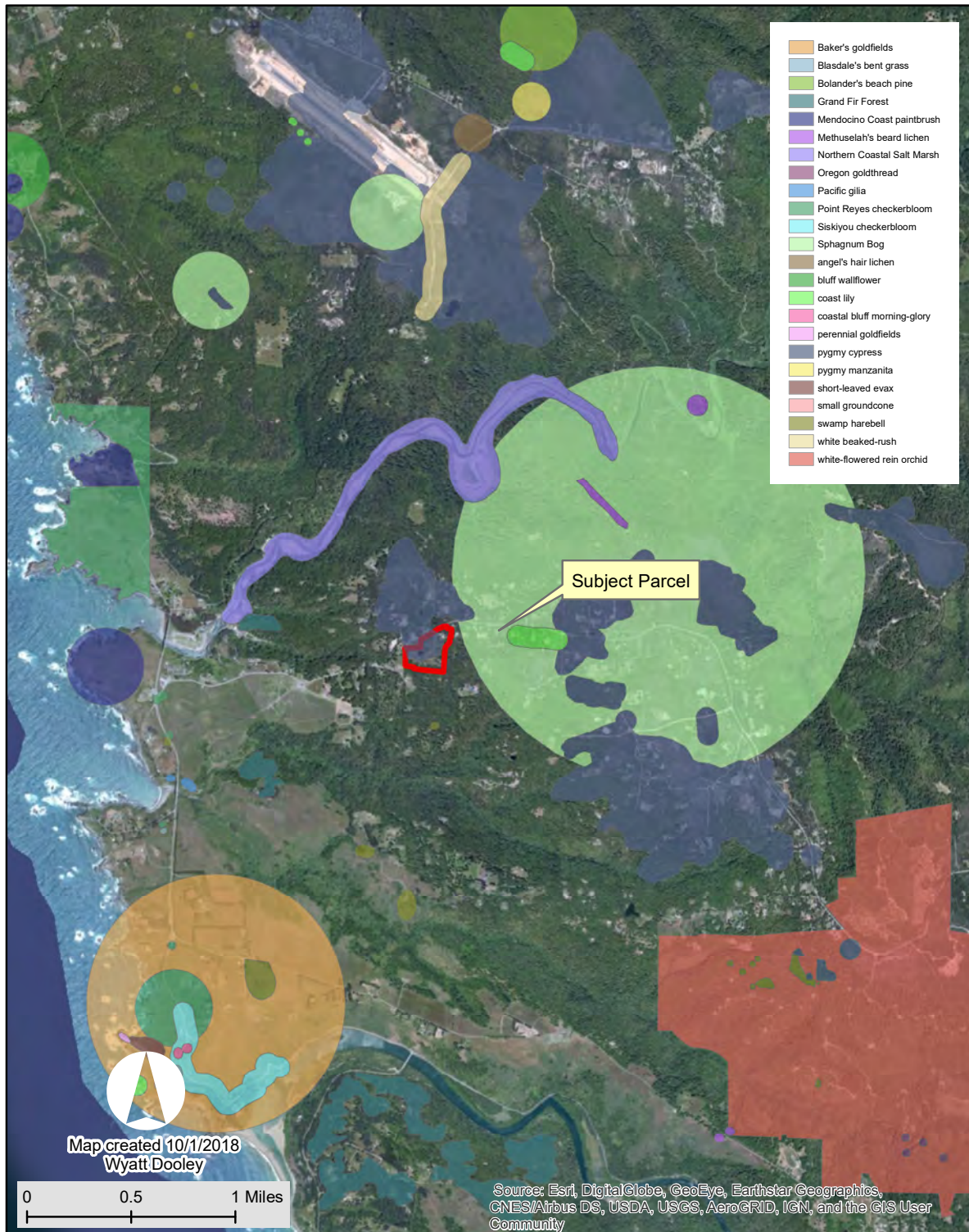
Additional database review was conducted to assess the potential for wetlands to occur in the area prior to field work. Aerial photography was assessed for features with "wet" characteristics and the Inventory of National Wetlands database was viewed with the subject parcel boundaries to see if any

previously documented wetlands occur in the study area.

4.2. Field Surveys

Wynn Coastal Planning & Biology's staff biologists conducted surveys on May 5, May 31, July 9, 20, and 26, 2018, for a total of 18.4 person hours, to compile a full floristic list of plants occurring in the study area and to identify any rare resources having the potential to meet the LCP ESHA definitions. To ensure potential ESHA plants were evident and identifiable, offsite **reference plant populations** were visited prior to the project field surveys. Verified offsite reference site plants observed by WCPlan staff during the 2018 floristic seasons included: Point Reyes blennosperma (*Blennosperma nanum* var. *robustum*), Blasdale's bent grass (*Agrostis blasdalei*), seacoast angelica (*Angelica lucida*), swamp harebell (*Campanula californica*), Mendocino coast paintbrush (*Castilleja mendocinensis*), supple daisy (*Erigeron supplex*), headland wallflower (*Erysimum concinnum*), short-leaved evax (*Hesperis matronalis* var. *brevifolia*), Point Reyes horkelia (*Horkelia marinensis*), thin-lobed horkelia (*Horkelia tenuiloba*), harlequin lotus (*Hosackia gracilis*), Baker's goldfields (*Lasthenia californica* ssp. *bakeri*), perennial goldfields (*Lasthenia californica* ssp. *macrantha*), coast lily (*Lilium maritimum*), coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*), deceiving sedge (*Carex saliniformis*), great burnet (*Sanguisorba officinalis*), early blue violet (*Viola adunca*), and corn lily (*Veratrum fimbriatum*).

All identifiable plant species located during the surveys were identified to the lowest taxonomic level necessary to determine the presence of special status plant species and are listed in **Table 1 (Appendix C)**. *The Jepson Manual: Vascular Plants of California* (Baldwin 2012) was used to determine the taxonomic nomenclature. *A Manual of California Vegetation Second Edition* (Sawyer 2009), *Classification of the Vegetation Alliances and Associations of Sonoma County, CA, V. 2* (Klein 2015) and the *List of Vegetation Alliances and Associations* (CDFW 2010) were used to classify and describe representative plant communities present. A potential for false negative survey results exists. For example, a rare plant could be eaten by deer around the time when they would have been evident and identifiable and therefore not be detected during surveys. Some plants remain dormant and do not become evident and identifiable every year. Climatic conditions are different each year and may have unpredictable effects on the bloom windows of each species. Heavy rains, for example, may cause one species to bloom early and another species to bloom later than in normal years. Well timed site visits and frequent observations at known reference sites reduce the chance of error.



OWNER: Paulson, Bryan
APN: 123-210-28-00
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Figure 5. Special status flora reported to CDFW in the proximity of the study area.



OWNER: Paulson, Bryan
APN: 123-210-28-00
GP/ZONE: RR10 10
ADDRESS: 32505 Albion Ridge Rd. Albion, CA 95410

CNDDDB Fauna

March 2018 CNDDDB Data

Figure 6. Special status fauna reported to CDFW in the proximity of the study area and recorded in the CNDDDB database.

5. SURVEY RESULTS

Biological Field Surveys were performed that identified the following: plant communities and animal habitat in the study area.

5.1. Plants

The CDFW's California Native Diversity Database (CNDDDB) BIOS, *Version 5* (2016), was used to inform the search on special status flora previously reported in the vicinity of the project area. Sixty-eight species of herbs, grasses, sedges, rushes, ferns, shrubs, and trees were identified in the study area and are listed in **Appendix D**. No special status plant species were identified within the study area.

5.2. Plant Communities

Sections 5.2.1- Error! Reference source not found. describes the plant communities that were observed within 100ft of the proposed development.

5.2.1. Redwood forest alliance (*Sequoia sempervirens* forest alliance (G3 S3.2))

The redwood forest was the most extensive plant community observed within the study area (**Figure 2**). The overstory was dominated by coast redwood (*Sequoia sempervirens*) with occasional Douglas fir (*Pseudotsuga menziesii*), Bishop Pine (*Pinus muricata*), and tanoak (*Notholithocarpus densiflorus*). Understory plants included those normally associated with upland redwood forest including black huckleberry (*Vaccinium ovatum*), rhododendron (*Rhododendron macrophyllum*), sword fern (*Polystichum munitum*), bracken fern (*Pteridium aquilinum*), meadow chickweed (*Cerastium arvense*), spreading rush (*Juncus patens*), salal (*Gaultheria shallon*), Douglas iris (*Iris douglasiana*), English plantain (*Plantago lanceolata*), sweet vernal grass (*Anthoxanthum odoratum*), Cotoneaster (*Cotoneaster* sp.), red huckleberry (*Vaccinium parvifolium*), rough cat's ear (*Hypochaeris radicata*), twining honeysuckle (*Lonicera hispidula*), tall fescue (*Festuca arundinacea*), and California blackberry (*Rubus ursinus*). Invasive non-native Scotch broom (*Cytisus scoparius*) occurred in some locations.

Redwood forest (*Sequoia sempervirens* Forest Alliance) has a state ranking of S3, which is rare enough to meet the first criteria of the ESHA definition; however, this ranking is based on counting only old growth occurrences of this plant community within California. An S3 ranking indicates that a plant community totals between 6,400 to 32,000 acres in California (Keeler-Wolf 2008). Early to mid-seral redwood forest, like that on the parcel, occupies approximately 643,000 acres in California (Burns & Honkala 1990), which far exceeds the membership rule to qualify as a state ranked population with S3 status. The redwood forest within the study area does not exhibit rare plant community characteristics of a mature redwood forest and was not treated as a potential ESHA for the purpose of this report.

5.2.2. Broom scrub (*Cytisus scoparius* shrubland semi-natural alliance)

Scotch broom (*Cytisus scoparius*) was dominant in several locations surrounding the gravel driveway. Within this plant community, redwood manzanita (*Arctostaphylos columbiana*) and seedling Bishop pine trees were also present (**Figure 7**). Other plants associated with this community were described in the lawn and landscaping section below.



Figure 7. Scotch broom community surrounded by redwood forest and the residence's mowed lawn.

5.2.3. Lawn and Landscaping

Surrounding the residence was a manicured lawn and landscaping (Figure 7 & Figure 8). The dominant grasses in the lawn were common velvet grass (*Holcus lanatus*) and sweet vernal grass (*Anthoxanthum odoratum*). Other plants within the lawn were California blackberry (*Rubus ursinus*), oxeye daisy (*Leucanthemum vulgare*), and rough cat's ear (*Hypochaeris radicata*). Small patches of Monbretia (*Crocasmia x crocosmiiflora*) and New Zealand flax (*Phormium tenax*) were planted in this area as well.



Figure 8. Lawn surrounding the existing residence.

5.3. Wildlife – Potential Occurrences

The California Department of Fish and Wildlife (CDFW) California Native Diversity Database (CNDDB) BIOS, Version 5 (2016), was used to inform the search and reveal fauna previously reported in the

vicinity of the project area (**Figure 6**). No special-status wildlife was observed during the field biological surveys. However, suitable habitat for special status wildlife species was identified. Descriptions below are for wildlife species with moderate to high potential to occur, and for State or Federally Endangered or Threatened Species with potential to occur. A complete list of special status wildlife with the potential to occur at the project site can be found in **Table 3 of Appendix C**.

5.3.1. Invertebrates

5.3.1.1. Lotis Blue butterfly (*Lycaeides argyrognomon lotis*) (G5TH SH)

This Federally Endangered butterfly species has not been seen since 1983; it is primarily from Mendocino County, but historically recorded in northern Sonoma and possibly Marin Counties. This species inhabits wet meadows, damp coastal prairie, and potentially bogs or poorly-drained sphagnum-willow bogs where soils are waterlogged and acidic. No harlequin lotus was observed within 100ft of the study area and therefore no further surveys are recommended at this time.

5.3.1.2. Behren's silverspot butterfly (*Speyeria zerene behrensi*) (G5T1 S1)

Behren's silverspot is known historically from the town of Mendocino, Mendocino County, south to the area of Salt Point State Park, Sonoma County. Now presumed to be from Manchester south to the Salt Point area. This species inhabits coastal terrace prairie with the caterpillar host plant western dog violet, and adult nectar sources such as thistles, asters, etc. No western dog violet (*Viola adunca*) was found in the study area and therefore no further surveys are recommended at this time.

5.3.1.3. Western Bumblebee (*Bombus occidentalis*) (G2G3 S1)

Western bumblebee (*Bombus occidentalis*) is not a Federal or State protected species, but is listed as a California Natural Diversity Database S1 species, an indication that there are limited known occurrences in California. The project area is in the former historical range of this species. Bumblebees observed during botanical surveys did not demonstrate the field markings of the western bumble bee, which include a conspicuous white tip of the abdomen. No further surveys are recommended at this time.

5.3.2. Fish

5.3.2.1.

There is no habitat that supports fish within the project area.

5.3.3. Amphibians

5.3.3.1. Northern red-legged frog (*Rana aurora aurora*) (G4T2T3 S2S3)

Northern red-legged frog (*Rana aurora*) is listed as a California Department of Fish and Wildlife Species of Special Concern. The range extends from the southwest British Columbia coast to central Mendocino County. Often found in woods adjacent to streams and stream sides with plant cover, northern red-legged frog breeds in permanent and temporary water sources, including lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps.

Mitigation and Avoidance measures in **Section 7** address how to minimize impacts to all potentially occurring amphibians. It is also recommended that the contractor be trained to recognize amphibians and contact a qualified biologist if any are found onsite during construction activities.

5.3.3.2. Southern Torrent Salamander (*Rhyacotriton variegatus*) (G3G4 S2S3)

This Species of Special Concern occurs primarily in cold, well-shaded permanent streams and spring seepages in redwood, Douglas fir, mixed conifer, montane riparian and montane hardwood-conifer habitats. On land, it normally occurs only within the splash zone or on moss-

covered rock rubble with trickling water. Appropriate habitat was not observed within the project area. No further surveys are recommended at this time.

5.3.3.3. Red-bellied newt (*Taricha rivularis*) (G4 S2)

This Species of Special Concern inhabits primarily redwood forest, but is also found within mixed conifer, valley-foothill woodland, montane hardwood and hardwood-conifer habitats. Rapid-flowing, permanent streams are required for breeding and larval development. No suitable breeding habitat was present within the study area. This species may range up to a mile from streams and may therefore be found in upland habitat during some times of the year. Identification and avoidance training for construction workers should include a discussion of this species.

5.3.4. Birds

5.3.4.1. Nesting birds

Resident and migratory birds that are present during the nesting season may nest in the habitat present within the study area. Nesting requirements are highly variable. Some birds nest in burrows, others on the ground, in vegetation, brush, trees, rocky outcrops, or on man-made structures. The bird nesting season typically extends from February to August. The Migratory Bird Treaty Act protects special status and common birds and their nests while they are in the process of nesting. If construction is to occur during the breeding season (February to August), a pre-construction survey is recommended to ensure that no nesting birds will be disturbed during development (**Table 1**). No nesting surveys are recommended if activity occurs in the non-breeding season.

5.3.5. Mammals

5.3.5.1. Bats

Many species of bats roost in hollowed areas, crevices, or under bark of trees in forested areas near water. Several special status species require a nearby fresh water source for drinking because they do not have a good urine concentrating ability. In addition, they use the open space over sources of fresh water for feeding on flying insects. Habitat for special status bats may potentially be present on the property. If construction is to occur during the breeding season (November to August), a pre-construction survey is recommended to ensure that no bat roosts will be disturbed during development (**Table 1**). No nesting surveys are recommended if activity occurs in the non-breeding season.

5.3.5.2. Sonoma tree vole (*Arborimus pomo*) (G3 S3)

Preferred habitat for Sonoma tree vole is mesic old growth Douglas fir forest, however Sonoma tree voles are known to live in other coniferous forests. They are known to eat primarily Douglas fir (*Pseudotsuga menziesii*) needles, but eat other conifer needles as well. Bishop pines (*Pinus muricata*) are present and have the potential to be habitat for Sonoma tree voles. No tree removal is proposed but if tree removal is necessary than a Sonoma tree vole survey is recommended.

6. MITIGATION AND AVOIDANCE MEASURES

The proposed project has been analyzed relative to its proximity to natural resources to determine its potential disturbance to sensitive species, utilizing the methods and results gathered above and the Reduced Buffer Analysis of the Mendocino County's Local Coastal Program (**Appendix G**). As a result of those analyses, we believe that potential impacts to presumed ESHAs can be minimized or avoided if the project utilizes the Mitigation and Avoidance Measures we recommend below.

6.1. Potential Impact 1: Potential Impact to Birds

Construction in the study area has the potential to disturb special status birds during the nesting season. Removal of vegetation and construction activity near trees and vegetated areas has the potential to disturb bird species.

6.1.1. Measure 1a: Seasonal Avoidance

No surveys are recommended if activity occurs in the **non-breeding season** (September to January). If development is to occur during the **breeding season** (February to August), a pre-construction survey is recommended within 14 days of the onset of construction to ensure that no nesting birds will be disturbed during development (**Table 1**).

6.1.2. Measure 1b: Nest Avoidance

If active special status bird nests are observed, no ground disturbing activities shall occur within a 100-foot exclusion zone. These exclusion zones may vary depending on species, habitat and level of disturbance. The exclusion zone shall remain in place around the active nest until all young are no longer dependent upon the nest. A biologist should monitor the nest site weekly during the breeding season to ensure the buffer is sufficient to protect the nest site from potential disturbance.

6.1.3. Measure 1c: Construction activities during daylight hours

Construction should occur during daylight hours to limit disturbing construction noise and minimize artificial lights.

6.2. Potential Impact 2: Potential Impact to Bats

Construction in the study area has the potential to impact special status bat species. Buildings for removal have the potential to serve as roosting or hibernation refugium. No other special features, such as hollow trees or other cave analogs, were observed. The potential for negative impacts to bats is minimal as long the following mitigation measures are followed.

6.2.1. Measure 2a: Pre-construction surveys for bats

Construction will ideally occur between September 1st and October 31 after the young have matured and prior to the bat hibernation period. **If it is necessary to disturb potential bat roost sites between November 1 and August 31**, pre-construction surveys should be performed by a qualified biologist 14 days prior to the onset of development activities. If active bat roosts are observed, construction activities with potential to impact bats shall occur within a minimum 100-foot exclusion zone. These exclusion zones may vary depending on species, habitat and level of disturbance. The exclusion zone shall remain in place around the active roost until all young are no longer dependent upon the roost.

Pre-construction bat surveys involve surveying trees, rock outcrops, and buildings subject to removal or remodel for evidence of bat use (guano accumulation, or acoustic or visual detections). If evidence of bat use is found, then biologists shall conduct acoustic surveys under appropriate conditions using an acoustic detector, to determine whether a site is occupied. If bats are found, a minimum 50-foot buffer should be implemented around the roost site.

Table 1 Months surveys are or are not needed for birds and bats.

Months During Which Pre-Construction Surveys Are Not Required For Birds & Bats												
	January	February	March	April	May	June	July	August	September	October	November	December
Birds												
Bats												
		Pre-Construction Surveys Are NOT Needed										
		Pre-Construction Surveys Are Needed										

6.2.2. Measure 2b: Construction activities during daylight hours

Construction should occur during daylight hours to limit disturbing construction noise and minimize artificial lights.

6.3. Potential Impact 3: Potential Impact to Soil and Vegetation

Materials staging, vehicle and equipment use and storage, and construction activities have the potential to compact soils and disturb vegetation.

6.3.1. Measure 3b: Limit ground disturbing construction to dry season

Ground disturbing construction should occur during the dry season, which is generally April 1 to October 31 of any year.

6.4. Potential Impact 4: Potential Impact to Special Status Amphibians in Upland Areas

Construction activities will involve walking across areas where amphibians may be traveling. Staging of materials and removal of construction debris could also disturb special status amphibians that may be hiding underneath these materials. To minimize impacts to amphibians, the following avoidance measures should be followed.

6.4.1. Measure 4a: Contractor education

Within two weeks prior to construction activities, project contractors will be trained by a qualified biologist in the identification of the frogs and salamanders that occur along the Mendocino County coast. Workers will be trained to differentiate between special status and common species and instructed on actions and communications required to be conducted in the event that a special status amphibians are observed during construction.

6.4.2. Measure 4b: Pre-construction search

During ground disturbing activities, construction crews will begin each day with a visual search around the staging and impact area to detect the presence of amphibians.

6.4.3. Measure 4c: Careful debris removal

During construction and debris removal, any wood stockpiles should be moved carefully by hand in order to avoid accidental crushing or other damage to amphibians.

6.4.4. Measure 4e: Construction activities during daylight hours

Some special status amphibians are more active at night. Construction should occur during daylight hours to minimize disturbing construction noise and artificial lights.

6.4.5. Measure 4f: Limit ground disturbing construction to dry season

Ground disturbing construction should occur during the dry season, which is generally April 1 to October 31 of any year.

6.4.6. Measure 4g: No construction during rain event

If a rain event occurs during the ground disturbance period, all ground disturbing activities will cease for a period of 48 hours, starting after the rain stops.

Prior to resuming construction activities, trained construction crew member(s) will examine the site for the presence of special status amphibians.

If no special status amphibians are seen during inspections, ground-disturbing activities may resume.

If a special status amphibian is detected, construction crews will stop all ground disturbing work and will contact the California Department of Fish and Wildlife (CDFW) or a qualified biologist. Clearance from CDFW will then be needed prior to reinitiating work. CDFW will need to be consulted and will need to be in agreement with protective measures needed for any potential special status amphibians.

6.5. Potential Impact 5: Sonoma Tree Voles

There is the possibility that the surrounding forest could be habitat for Sonoma tree voles. Currently there is not a survey protocol for the Sonoma tree vole; the survey protocol for the red tree vole (*Arborimus longicaudus*) has been used to successfully identify presence of Sonoma tree vole in the past.

6.5.1. Measure 5a: Sonoma tree vole survey

No tree removal is currently proposed but if tree removal does need to occur, it is recommended a qualified biologist conduct a Sonoma tree vole survey for forested areas (Huff, 2012). If Sonoma tree voles are observed, CDFW should be consulted for follow-up action and clearance of the project before initial vegetation removal and construction is begun. According to the red tree vole survey protocol, positive survey results are valid for 10 years and negative survey results are valid for five (Huff, 2012).

6.6. Potential Impact 6: Invasive plants and landscaping

After the single-family residence is built, landscaping surrounding the residence has the potential to occur. In some cases, landscaping can become invasive and spread to surrounding areas that could out compete native flora and degrade habitat that native fauna may use.

6.6.1. Measure 6b: Plant native vegetation

While many ornamental landscapes on the California coast use non-native plants, invasive plants should not be planted. Some invasive plants commonly seen by Wynn Coastal Planning & Biology's staff biologists on the coast that should be avoided are: Iceplant (*Carpobrotus edulis*, *C. chilensis*, & *Delosperma* sp.), cotoneaster (*Cotoneaster franchetii* & *C. pannosus*), English ivy (*Hedera helix*), cape ivy (*Delairea odorata*), pampas grass (*Cortaderia jubata* & *C. selloana*), cape weed (*Arctotheca calendula* & *A. prostrata*), *Crocasmia* sp., blue gum eucalyptus (*Eucalyptus globulus*), redhot poker (*Kniphofia uvaria*), periwinkle (*Vinca major*), bulbil bugle lily (*Watsonia meriana*), and calla lily (*Zantedeschia aethiopica*).

7. DISCUSSION

It is the professional opinion of the biologists at Wynn Coastal Planning & Biology that the proposed project will not impact any resources as no ESHAs were identified within 100ft of the proposed development. Mitigation measures recommended should be followed to avoid impact to special status animals that can be present during certain times of the year, or that are passing through the area.

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9. INVESTIGATOR BIOGRAPHIES

Contributing Biologists

Asa B Spade graduated from Humboldt State University with a Bachelor's Degree in Environmental Science, with a concentration in Landscape Ecosystems as well as a minor in Botany. Since that time, he has been working in the natural resources field, first with Mendocino County Environmental Health and later with California State Parks and the Department of Fish and Game. He has been trained in Army Corps wetland delineation by the Coastal Training Program at Elkhorn Slough and in Advanced Wetland Delineation by the Wetland Science and Coastal Training Program. He has been trained in the environmental compliance process for wetland projects in San Francisco bay and outer coastal areas. In 2015 he attended a Townsend's big eared bat basal hollow habitat assessment and survey methods workshop taught by Michael Baker, Leila Harris, and Adam Hutchins. Asa has trained with the Carex Working Group in identifying grasses and sedges of Northern California as well as a CNPS sedge workshop taught by CA Fish and Wildlife staff biologist Gordon Leppig. In 2019, he completed a training for burrowing owls taught by Dr. Lynne Trulio through the Elkhorn Slough Coastal Training Program as well as a foothill yellow legged frog training taught by David Cook and Jeff Alvarez. He is on the Fish and Wildlife Service approved list for Point Arena mountain beaver surveys and has done surveys for Behren's silverspot butterfly, Northern spotted owl, Sonoma tree vole, and the California red-legged frog. He has contributed to more than 150 coastal development projects in Mendocino County.

Karen Youngblood holds a Master of Science in Natural Resources and a GIS Certificate from Humboldt State University and a Bachelor's of Arts in Environmental Studies, with an emphasis in Policy and Planning, from the University of California in Santa Cruz. Her diverse experience includes over 20 years of botanical, wildlife, fisheries and forestry field work throughout Northern California and Southeastern Oregon, with the last 10 years being focused in Coastal Mendocino County. She has received additional training in Army Corps wetland delineation by Richard Chinn Environmental Training in Sacramento, CA, Rare Plant Species of Special Concern with Teresa Sholars at the College of the Redwoods in Fort Bragg, CA (Spring, 2009), and *Carex* keying and identification training with Gordon Leppig in Arcata, CA (March, 2017).

Wyatt Dooley graduated from University of California Santa Barbara with a Bachelor's of Science in Environmental Studies and a minor in Geology. After graduating, he worked for Fish and Wildlife and Pacific States Marine Fisheries as a technician researching salmon. He has also worked abroad in New Zealand as a conservation ranger helping on restoration projects and controlling invasive species. Additionally, he has received training in Army Corp wetland delineation by San Francisco State University and the Wetland Science and Coastal Training Program, training from CNPS-CDFW on vegetation rapid assessment and relevé methods, is on the US Fish and Wildlife Service's approved list for Point Arena Mountain Beaver Surveys, and received a specialization in ArcGIS through University of California Davis. He has also received training in *Carex* keying and identification through CNPS taught by CA Fish and Wildlife staff biologist Gordon Leppig (March 2018). In October of 2019, he also completed a training through Laguna de Santa Rosa Foundation for foothill yellow legged frog taught by David Cook and Jeff Alvarez.



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 Mendocino County, Western Part, California



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.

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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
Mendocino County, Western Part, California.....	13
108—Blacklock and Aborigine soils, 0 to 5 percent slopes.....	13
141—Ferncreek sandy loam, 2 to 9 percent slopes.....	14
199—Shinglemill-Gibney complex, 2 to 9 percent slopes.....	16
214—Tropaquepts, 0 to 15 percent slopes.....	18
References	19

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

Custom Soil Resource Report

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

Custom Soil Resource Report

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.

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Soil Map



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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 1:24,000.

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: Mendocino County, Western Part, California
Survey Area Data: Version 13, Sep 17, 2018

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

Date(s) aerial images were photographed: Dec 31, 2009—Nov 6, 2017

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
108	Blacklock and Aborigine soils, 0 to 5 percent slopes	0.1	0.4%
141	Ferncreek sandy loam, 2 to 9 percent slopes	4.6	14.5%
199	Shinglemill-Gibney complex, 2 to 9 percent slopes	15.4	48.7%
214	Tropaquepts, 0 to 15 percent slopes	11.5	36.5%
Totals for Area of Interest		31.5	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.

Custom Soil Resource Report

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.

Mendocino County, Western Part, California

108—Blacklock and Aborigine soils, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: hmk7
Elevation: 250 to 650 feet
Mean annual precipitation: 40 to 80 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 270 to 330 days
Farmland classification: Not prime farmland

Map Unit Composition

Blacklock and similar soils: 40 percent
Aborigine and similar soils: 40 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Blacklock

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Marine deposits derived from mixed

Typical profile

H1 - 0 to 7 inches: loamy sand
H2 - 7 to 14 inches: sandy loam
H3 - 14 to 61 inches: cemented
H4 - 61 to 64 inches: loamy sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 12 to 20 inches to ortstein
Natural drainage class: Very poorly drained
Runoff class: Very high
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 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Description of Aborigine

Setting

Landform: Marine terraces

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Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Marine deposits derived from mixed

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 13 inches: loam
H3 - 13 to 61 inches: sandy clay

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: About 13 inches to abrupt textural change
Natural drainage class: Very poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low
(0.01 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Shinglemill

Percent of map unit: 10 percent
Landform: Marine terraces
Hydric soil rating: Yes

Tropaquepts

Percent of map unit: 10 percent
Landform: Marine terraces
Hydric soil rating: Yes

141—Ferncreek sandy loam, 2 to 9 percent slopes

Map Unit Setting

National map unit symbol: hmln
Elevation: 100 to 1,000 feet
Mean annual precipitation: 40 to 65 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 290 to 365 days
Farmland classification: Not prime farmland

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Map Unit Composition

Ferncreek and similar soils: 80 percent

Minor components: 20 percent

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

Description of Ferncreek

Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Marine deposits derived from sandstone and siltstone

Typical profile

H1 - 0 to 7 inches: sandy loam

H2 - 7 to 33 inches: clay loam

H3 - 33 to 43 inches: sandy clay loam

H4 - 43 to 61 inches: sandy loam

Properties and qualities

Slope: 2 to 9 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 24 to 48 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 5 percent

Landform: Depressions

Hydric soil rating: Yes

Caspar

Percent of map unit: 5 percent

Hydric soil rating: No

Quinliven

Percent of map unit: 5 percent

Hydric soil rating: No

Unnamed, gentler or steeper slopes

Percent of map unit: 5 percent

Hydric soil rating: No

199—Shinglemill-Gibney complex, 2 to 9 percent slopes

Map Unit Setting

National map unit symbol: hmp2
Elevation: 200 to 750 feet
Mean annual precipitation: 40 to 65 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 270 to 330 days
Farmland classification: Not prime farmland

Map Unit Composition

Shinglemill and similar soils: 45 percent
Gibney and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Shinglemill

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fluvio-marine deposits derived from sedimentary rock

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 15 inches: loam
H3 - 15 to 25 inches: clay loam
H4 - 25 to 63 inches: sandy clay

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

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Description of Gibney

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fluvio-marine deposits derived from sandstone

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 29 inches: sandy clay loam
H3 - 29 to 55 inches: clay
H4 - 55 to 63 inches: sandy clay loam

Properties and qualities

Slope: 2 to 9 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 30 to 48 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Tregoning

Percent of map unit: 5 percent
Landform: Marine terraces
Hydric soil rating: Yes

Blacklock

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

Gibwell

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

Tropaquepts

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

214—Tropaquepts, 0 to 15 percent slopes

Map Unit Composition

Tropaquepts and similar soils: 80 percent

Minor components: 20 percent

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

Description of Tropaquepts

Setting

Landform: Marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Fluvio-marine deposits derived from igneous, metamorphic and sedimentary rock

Properties and qualities

Depth to restrictive feature: More than 80 inches

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Minor Components

Tregoning

Percent of map unit: 5 percent

Landform: Marine terraces

Hydric soil rating: Yes

Shinglemill

Percent of map unit: 5 percent

Landform: Marine terraces

Hydric soil rating: Yes

Aborigine

Percent of map unit: 5 percent

Landform: Marine terraces

Hydric soil rating: Yes

Blacklock

Percent of map unit: 5 percent

Landform: Marine terraces

Hydric soil rating: Yes

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May 31, 2018

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Appendix C. Species Rarity Ranking System and Definitions

FED: federal status includes federally rare (**FR**), threatened (**FT**), or endangered (**FE**)

STATE: California state status includes rare (**CR**), threatened (**CT**), or endangered (**CE**)

CNPS: California Native Plant Society ranked inventory of native California plants thought to be at risk

CNPS Ranking

List 1A (1A) Presumed extinct in California.

List 1B (1B) Rare, threatened, or endangered in California and elsewhere.

List 2 (2) Rare, threatened or endangered in California but more common elsewhere.

List 3 (3) More information needed, a review list.

List 4 (4) Species of limited distribution, a watch list.

Threat Code extensions and their meanings:

.1 - Seriously endangered in California

.2 – Fairly endangered in California

.3 – Not very endangered in California

G-RANK: Global Ranking - The global rank (G-rank) is a reflection of the overall condition of an element throughout its global range.

SPECIES OR NATURAL COMMUNITY LEVEL

G1 = Less than 6 viable element occurrences (Eos) OR less than 1,000 individuals OR less than 2,000 acres.

G2 = 6-20 Eos OR 1,000-3,000 individuals OR 2,000-10,000 acres.

G3 = 21-80 Eos OR 3,000-10,000 individuals OR 10,000-50,000 acres.

G4 = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.

G5 = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.

GH - All sites are historical so possibly extinct; the element has not been seen for at least 20 years, but suitable habitat still exists (**SH** = All California sites are historical and possibly extinct).

GX - All sites are extirpated; this element is extinct in the wild (**SX** = All California sites are extirpated).

Appendix C. Species Rarity Ranking System and Definitions

GXC - Extinct in the wild; exists in cultivation.

G1Q - The element is very rare, but there are taxonomic questions associated with it.

T - Rank applies to a subspecies or variety.

S-RANK: STATE RANKING - The state rank (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.

S1 = Less than 6 viable Eos OR less than 1,000 individuals OR less than 2,000 acres

S1.1 = very threatened

S1.2 = threatened

S1.3 = not very threatened OR no current threats known

S2 = 6-20 Eos OR 1,000-3,000 individuals OR 2,000-10,000 acres

S2.1 = very threatened

S2.2 = threatened

S2.3 = not very threatened OR no current threats known

S3 = 21-80 Eos or 3,000-10,000 individuals OR 10,000-50,000 acres

S3.1 = very threatened

S3.2 = threatened

S3.3 = not very threatened OR no current threats known

S4 = Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat.

S5 = Demonstrably secure to ineradicable in California. NO THREAT RANK.

Notes:

1. Other considerations used when ranking a species or natural community include the pattern of distribution of the element on the landscape, fragmentation of the population/stands, and historical extent as compared to its modern range. It is important to take a bird's eye or aerial view when ranking sensitive elements rather than simply counting Eos.
2. Uncertainty about the rank of an element is expressed in two major ways:
By expressing the rank as a range of values: e.g., S2S3 means the rank is somewhere between S2 and S3.
By adding a ? to the rank: e.g., S2? This represents more certainty than S2S3, but less than S2.
3. Other symbols

Appendix C . Table 1. Special status plant scoping list.

Scientific Name (Synonyms) Common Name	Habitat found	Blooming Period	CRPR	Fed. Listing	State Listing	State Rank	Global Rank	Found?
<i>Abronia umbellata var. breviflora</i> Pink sand-verbena	Coastal dunes	Jun-Oct	1B.1	N	N	S1	G4G5T	No
<i>Agrostis blasdalei</i> Blasdale's bent grass	Coastal dunes, coastal bluff scrub, coastal prairie.	May- Jul	1B.2	N	N	S2	G2	No
<i>Arctostaphylos nummularia ssp. Mendocinoensis</i> Pygmy manzanita	Closed-cone coniferous forest. Acidic sandy-clay soils in dwarfed coniferous forest.	Jan	1B.2	N	N	SH	G3?THQ	No
<i>Astragalus agnicidus</i> Humboldt milk- vetch	Openings, disturbed areas, roadsides, broadleaved upland forest, North coast coniferous forest	Apr-Sep	1B.1	N	CE	S3	G3	No
<i>Astragalus pycnostachyus var. pycnostachyus</i> Coastal marsh milk-vetch	Coastal dunes (mesic), coastal scrub, coastal salt marshes and swamps, and streamsides	Apr-Oct	1B.2	N	N	S2	G2T2	No
<i>Blennosperma nanum var. robustum</i> Point Reyes blennosperma	Coastal prairie, coastal scrub	Feb-Apr	1B.2	N	CR	S2	G4T2	No
<i>Calamagrostis crassiglumis</i> Thurber's reed grass	Coastal scrub (mesic), freshwater marshes and swamps.	May-Aug	2B.1	N	N	S2	G3Q	No
<i>Calystegia purpurata ssp. saxicola</i> Coastal bluff morning-glory	Coastal bluff scrub, Coastal dunes, Coastal scrub, North Coast coniferous forest.	Mar-Sep	1B.2	N	N	S2S3	G4T2T3	No
<i>Campanula californica</i> Swamp harebell	Bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marshes and swamps, and North Coast coniferous forests.	Jun-Oct	1B.2	N	N	S3	G3	No
<i>Carex californica</i> California sedge	Bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, marshes and swamps (often on margins or drier areas).	May-Aug	2B.3	N	N	S2	G5	No
<i>Carex lenticularis var. limnophila</i> Lagoon sedge	Shores, beaches, often gravelly, bogs and fens, marshes and swamps, North Coast coniferous forest.	Jun-Aug	2B.2	N	N	S1	G5T5	No
<i>Carex livida</i> Livid sedge	Bogs and Fens	Jun	2A	N	N	SH	G5	No
<i>Carex lyngbyei</i> Lyngbye's sedge	Brackish or freshwater marshes and swamps	Apr-Aug	2B.2	N	N	S3	G5	No
<i>Carex saliniformis</i> Deceiving sedge	Mesic sites of coastal prairie, coastal scrub, and meadows, seeps, marshes and swamps (coastal salt)	Jun-Jul	1B.2	N	N	S2	G2	No
<i>Carex viridula ssp. Viridula</i> Green yellow sedge	Bogs and fens, marshes and swamps (freshwater), north coast coniferous forest (mesic).	Jun-Nov	2B.3	N	N	S1.3	G5T5	No
<i>Castilleja affinis ssp. litoralis</i> Oregon coast paintbrush	Sandy sites in coastal bluff scrub and coastal scrub; coastal dunes.	Jun	2B.2	N	N	S3	G4G5T4	No
<i>Castilleja ambigua var. humboldtiensis</i> Humboldt Bay owl's-clover	Coastal salt marshes and swamps.	Apr-Aug	1B.2	N	N	S2	G4T2	No
<i>Castilleja mendocinensis</i> (<i>Castilleja latifolia ssp. Mendocinensis</i>) Mendocino Coast paintbrush	Coastal bluff scrub, coastal scrub, closed-cone coniferous forest, coastal dunes, coastal prairie.	Apr-Aug	1B.2	N	N	S2	G2	No

Scientific Name (Synonyms) Common Name	Habitat found	Blooming Period	CRPR	Fed. Listing	State Listing	State Rank	Global Rank	Found?
<i>Chorizanthe howellii</i> Howell's spineflower	Sandy, often disturbed, areas of coastal prairie and coastal scrub, and coastal dunes	May - Jul	1B.2	FE	CT	S1	G1	No
<i>Clarkia amoena ssp. whitneyi</i> Whitney's farewell-to- spring	Coastal bluff scrub, coastal scrub.	Jun-Aug	1B.1	N	N	S1	G5T1	No
<i>Collinsia corymbosa</i> Round-headed Chinese-houses	Coastal dunes, coastal prairie.	Apr-June	1B.2	N	N	S1	G1	No
<i>Cornus canadensis</i> Bunchberry	Bogs and fens, meadows and seeps, North Coast coniferous forest.	May-Jul	2B.2	N	N	S2	G5	No
<i>Cuscuta pacifica var. papillata</i> Mendocino dodder	Coastal dunes (interdune depressions).	Jul-Oct	1B.2	N	N	S1	G5T1	No
<i>Erigeron supplex</i> Supple daisy	Coastal bluff scrub, coastal prairie.	May-Jul	1B.2	N	N	S2	G2	No
<i>Erysimum concinnum</i> Headland wallflower	Coastal bluff scrub, coastal dunes, coastal prairie.	Feb-Jul	1B.2	N	N	S3	G3	No
<i>Erysimum menziesii</i> (<i>Erysimum menziesii ssp. eurekaense</i> , <i>Erysimum menziesii ssp. menziesii</i> , <i>Erysimum menziesii ssp. yadonii</i>) Menzies' wallflower	Localized on coastal dunes and coastal strand.	Mar-Sep	1B.1	FE	CE	S1	G1	No
<i>Erythronium revolutum</i> Coast\Mahogany fawn lily	Mesic, streambanks. Bogs and fens; broadleafed upland forests; North Coast coniferous forest.	Mar-Aug	2B.2	N	N	S3	G4	No
<i>Fritillaria roderickii</i> (<i>Fritillaria biflora var. biflora</i>) Roderick's fritillary	Coastal bluff scrub, coastal prairie, valley and foothill grassland.	Mar-May	1B.1	N	CE	S1.1	G1Q	No
<i>Gilia capitata ssp. chamissonis</i> Blue coast gilia	Coastal dunes, coastal scrub.	Apr-Jul	1B.1	N	N	S2	G5T2	No
<i>Gilia capitata ssp. pacifica</i> Pacific gilia	Coastal bluff scrub, openings in chaparral, coastal prairie, valley and foothill grassland.	Apr-Aug	1B.2	N	N	S2	G5T3T4	No
<i>Gilia capitata ssp. tomentosa</i> Woolly-headed gilia	Serpentine, rocky, outcrops of coastal bluff scrub and calley and foothill grassland.	May-Jul	1B.1	N	N	S2	G5T2	No
<i>Gilia millefoliata</i> Dark-eyed gilia	Coastal dunes	Apr-Jul	1B.2	N	N	S2	G2	No
<i>Glyceria grandis</i> American manna grass	Bogs and fens, wet meadows and seeps, marshes, swamps, streambanks, and lake margins	Jun-Aug	2B.3	N	N	S3	G5	No
<i>Hemizonia congesta ssp. Congesta</i> Seaside tarplant	Sometimes roadsides. Valley and foothill grassland	Apr-Nov	1B.2	N	N	S1S2	G5T1T2	No
<i>Hesperovax sparsiflora var. brevifolia</i> Short-leaved evax	Sandy coastal bluffs; coastal dunes, coastal dune mat, and sandy openings in wet dune meadows. Coastal bluff scrub. Rocky, grassy slopes. In areas of sparse vegetation cover in sandy substrate.	Mar-Jun	1B.2	N	N	S2	G4T3	No
<i>Hesperocyparis pygmaea</i> (<i>Cupressus pygmaea</i> , <i>Cupressus goveniana ssp. pigmaea</i> , <i>Callitropsis pygmaea</i>) Pygmy cypress	Closed-cone coniferous forests, usually podzol-like	NA	1B.2	N	N	S1	G1	No

Scientific Name (Synonyms) Common Name	Habitat found	Blooming Period	CRPR	Fed. Listing	State Listing	State Rank	Global Rank	Found?
<i>Horkelia marinensis</i> Point Reyes horkelia	Sandy, coastal dunes, coastal scrub, coastal prairie	May-Sep	1B.2	N	N	S2	G2	No
<i>Horkelia tenuiloba</i> Thin-lobed horkelia	Mesic openings or sandy sites in broadleaved upland forests, chaparral, and valley and foothill grassland.	May-Aug	1B.2	N	N	S2	G2	No
<i>Hosackia gracilis</i> (<i>Lotus formosissimus</i>) Harlequin lotus	Wetlands, roadsides, Broadleaved upland forest, Coastal bluff scrub, Closed-cone coniferous forest, Cismontane woodland, Coastal prairie, Coastal scrub, Meadows and seeps, Marshes and swamps, North Coast coniferous forest, Valley and foothill grassland	Mar-Jul	4.2	N	N	S3	G4	No
<i>Juncus supiniformis</i> Hair-leaved rush	Bogs and fens; freshwater marshes and swamps near the coast.	Apr-Jul	2B.2	N	N	S1	G5	No
<i>Kopsiopsis hookeri</i> (<i>Boschniakia hookeri</i>) Small groundcone	North Coast coniferous forest	Apr-Aug	2B.3	N	N	S1S2	G4G5	No
<i>Lasthenia californica ssp. bakeri</i> Baker's goldfields	Openings in closed-cone coniferous forest; coastal scrub; meadows and seeps; marshes and swamps.	Apr-Oct	1B.2	N	N	SH	G3TH	No
<i>Lasthenia californica ssp. macrantha</i> Perennial goldfields	Coastal bluff scrub, coastal dunes, and coastal scrub.	Jan-Nov	1B.2	N	N	S2	G3T2	No
<i>Lasthenia conjugens</i> Contra Costa goldfields	Mesic sites in cismontane woodlands, alkaline playas, valley and foothill grasslands, vernal pools	Mar-Jun	1B.1	FE	N	S1.1	G1	No
<i>Lathyrus palustris</i> Marsh Pea	Bogs and fens; mesic sites of coastal prairies, coastal scrub, lower montane coniferous forests, and North Coast coniferous forests.	Mar- Aug	2B.2	N	N	S2	G5	No
<i>Lilium maritimum</i> Coast lily	Broadleaved upland forests, closed-cone coniferous forests, coastal prairies, coastal scrub, freshwater marshes and swamps. Roadsides and roadside ditches.	May-Aug	1B.1	N	N	S2	G2	No
<i>Microseris paludosa</i> Marsh microseris/silverpuffs	Closed-cone coniferous forests, cismontane woodlands, coastal scrub, valley and foothill grasslands. (A 1968 collection from Point Arena (3.2 km to N, between Hwy. 1 and beach) is the northernmost occurrence and is disjunct from southern populations.)	Apr-Jul	1B.2	N	N	S2	G2	No
<i>Oenothera wolfii</i> Wolf's evening- primrose	Sandy, usually mesic sites in coastal bluff scrub, coastal dunes, coastal prairie, and lower montane coniferous forests. (Along roads on vertical cutbanks and in grassy median. On disturbed sterile soil; upper stabilized dunes; rocky slopes protected above strand; vertical cliffs above the ocean.)	May-Oct	1B.1	N	N	S1	G2	No
<i>Packera bolanderi var. bolanderi</i> (<i>Senecio bolanderi var. bolanderi</i>) Seacoast ragwort	Sometimes roadsides, Coastal Scrub, North coast coniferous forest	Jan-Aug	2B.2	N	N	S2S3	G4T4	No
<i>Phacelia insularis var. continentis</i> North Coast phacelia	Sandy, sometimes rocky, sites in coastal bluff scrub; coastal dunes. (Rocky, thin soil with native and non-native grasses and forbs. Sandy pastureland and grazed coastal prairie.)	Mar-May	1B.2	N	N	S2	G2T2	No
<i>Pinus contorta ssp. bolanderi</i> Bolander's beach pine	Closed-cone coniferous forests with podzol-like soils. Associated with Mendocino cypress and bishop pine, and Mendocino pygmy cypress forests.	Jul-Aug	1B.2	N	N	S2	G5T2	No
<i>Piperia candida</i> White-flowered rein orchid	Sometimes serpentine, Broadleaved upland forest, Lower montane coniferous forest, North Coast coniferous forest	Mar-Sep	1B.2	N	N	S3	G3	No

Scientific Name (Synonyms) Common Name	Habitat found	Blooming Period	CRPR	Fed. Listing	State Listing	State Rank	Global Rank	Found?
<i>Pleuropogon hooverianus</i> North Coast semaphore grass	open areas, mesic, broadleaved upland forest, meadows and seeps, North coast coniferous forest.	Apr-Jun	1B.1	N	CT	S2	G2	No
<i>Potamogeton epihydrus</i> Ribbonleaf pondweed	Marshes and swamps (assorted shallow freshwater)	Jun-Sep	2B.2	N	N	S2.2?	G5	No
<i>Puccinellia pumila</i> Dwarf alkali grass	Coastal salt marshes and swamps; meadows and seeps, mineral spring meadows.	Jul	2B.2	N	N	SH	G4?	No
<i>Rhynchospora alba</i> White beaked-rush	Bogs and fens (sometimes in Mendocino pygmy forests); meadows and seeps; marshes and swamps (freshwater).	Jul-Aug	2B.2	N	N	S2	G5	No
<i>Sanguisorba officinalis</i> Great burnet	Bogs and fens, broadleaved upland forests, meadows and seeps, marshes and swamps, North Coast coniferous forests, riparian forests, Serpentine seepage areas and along stream borders.	Jul-Oct	2B.2	N	N	S2	G5?	No
<i>Sidalcea calycosa ssp. rhizomata</i> Point Reyes checkerbloom	Freshwater marshes and swamps near the coast.	Apr-Sep	1B.2	N	N	S2	G5T2	No
<i>Sidalcea malviflora ssp. patula</i> Siskiyou checkerbloom	Often roadcuts, coastal bluff scrub; coastal prairie; North coast coniferous forest	May-Aug	1B.2	N	N	S2	G5T2	No
<i>Sidalcea malviflora ssp. purpurea</i> Purple-stemmed checkerbloom	Broadleaved upland forest, coastal prairie	May-Jun	1B.2	N	N	S1	G5T1	No
<i>Trifolium buckwestiorum</i> Santa Cruz clover	Gravelly margins of broadleaved upland forests, cismontane woodlands, coastal prairie. (Common associates include <i>Juncus bufonius</i> , <i>Soliva sessilis</i> , <i>Danthonia californica</i> , and <i>Bromus hordeaceus</i> . In Mendocino Co., most collections from ~5 miles up Garcia River.)	Apr-Oct	1B.1	N	N	S2	G2	No
<i>Trifolium trichocalyx</i> Monterey clover	Closed-cone coniferous forest (sandy, openings, burned areas).	Apr-Jun	1B.1	FE	CE	S1	G1	No
<i>Triquetrella californica</i> Coastal triquetrella	Soil of Coastal bluff scrub, coastal scrub,	NA	1B.2	N	N	S2	G2	No
<i>Viola adunca</i> Western dog violet	Yellow pine forest, red fir forest, lodgepole forest, redwood forest, mixed evergreen forest, subalpine forest, alpine fell-fields, wetland riparian. Common and widespread on open sea bluffs to red fir forest.	Apr-Aug	not ranked	N	N	?	?	No
<i>Viola palustris</i> Alpine marsh violet	Coastal Bogs and Fens; Coastal Scrub (mesic)	Mar-Aug	2B.2	N	N	S1S2	G5	No

Special Status Plant Alliances Occuring in Coastal Mendocino County			Present
Scientific Name	Common Name	Global & State Rank	
Woodland and Forest Alliances and Stands			
<i>Abies grandis</i> Alliance	Grand fir forest	G4 S2	No
<i>Acer macrophyllum</i> Alliance	Bigleaf maple forest	G4 S3	No
<i>Arbutus menziesii</i> Alliance	Madrone forest	G4 S3	No
<i>Callitropsis pigmaea</i> Alliance	Mendocino pygmy cypress woodland	G2 S2	No
<i>Chrysopsis chrysophylla</i> Alliance	Golden chinquapin thickets	G2 S2	No
<i>Lithocarpus densiflorus</i> Alliance	Tanoak forest	G4 S3	No
<i>Picea sitchensis</i> Alliance	Sitka spruce forest	G5 S2	No
<i>Pinus contorta</i> ssp. <i>contorta</i> Alliance	Beach pine forest	G5 S3	No
<i>Pinus muricata</i> Alliance	Bishop pine forest	G3 S3	No
<i>Sequoia sempervirens</i> Alliance	Redwood forest	G3 S3	No
<i>Tsuga heterophylla</i> Alliance	Western hemlock forest	G5 S2	No
<i>Umbellularia californica</i> Alliance	California bay forest	G4 S3	No
Shrubland Alliances and Stands			
<i>Arctostaphylos (nummularia, sensitiva)</i>	Glossy leaf manzanita chaparral	G2 S2	No
<i>Corylus cornuta</i> var. <i>californica</i>	Hazelnut scrub	G3 S2?	No
<i>Garrya elliptica</i> Provisional Alliance	Coastal silk tassel scrub	G3? S3?	No
<i>Diplacas aurantiacus</i> Alliance	Bush monkeyflower scrub	G3 S3?	No
<i>Holodiscus discolor</i> Alliance	Ocean spray brush	G4 S3	No
<i>Morella californica</i> Alliance	Wax myrtle scrub	G3 S3	No
<i>Rhododendron neoglandulosum</i>	Western Labrador-tea thickets	G4 S2?	No
<i>Rhododendron occidentale</i> Provisional	Western azalea patches	G3 S2?	No
<i>Rosa californica</i> Alliance	California rose briar patches	G3 S3	No
<i>Rubus (parviflorus, spectabilis, ursinus)</i>	Coastal brambles	G4 S3	No
<i>Salix hookeriana</i> Alliance	Coastal dune willow thickets	G4 S3	No
<i>Sphagnum</i> Bog	Sphagnum bog	G3 S1.2	No
<i>Salix sitchensis</i> Provisional Alliance	Sitka willow thickets	G4 S3?	No
Herbaceous Alliances and Stands			
<i>Abronia latifolia</i> – <i>Ambrosia</i>	Dune mat	G3 S3	No
<i>Argentina egedii</i> Alliance	Pacific silverweed marshes	G4 S2	No
<i>Bulboschoenus maritimus</i> Alliance	Salt marsh bulrush marshes	G4 S3	No
<i>Calamagrostis nutkaensis</i> Alliance	Pacific reed grass meadows	G4 S2	No
<i>Camassia quamash</i> Alliance	Small camas meadows	G4? S3?	No
<i>Carex obnupta</i> Alliance	Slough sedge swards	G4 S3	No
<i>Carex pansa</i> Alliance	Sand dune sedge swaths	G4? S3?	No
<i>Danthonia californica</i> Alliance	California oat grass prairie	G4 S3	No
<i>Elymus glaucus</i> Alliance	Blue wild rye meadows	G3? S3?	No
<i>Festuca rubra</i> Alliance	Red fescue grassland	G4 S3?	No
<i>Festuca idahoensis</i> Alliance	Idaho fescue grassland	G4 S3?	No
<i>Glyceria occidentalis</i>	Northwest manna grass marshes	G3? S3?	No
<i>Grindelia (stricta)</i> Provisional Alliance	Gum plant patches	G3? S3?	No
<i>Hordeum brachyantherum</i> Alliance	Meadow barley patches	G4 S3?	No
<i>Juncus (oxymeris, xiphioides)</i>	Iris-leaf rush seeps	G2? S2?	No
<i>Juncus lescurii</i> Alliance	Salt rush swales	G3 S2?	No
<i>Leymus mollis</i> Alliance	Sea lyme grass patches	G4 S2	No
<i>Leymus triticoides</i> Alliance	Creeping rye grass turfs	G4 S3	No

Special Status Plant Alliances Occuring in Coastal Mendocino County			Present
Scientific Name	Common Name	Global & State Rank	
<i>Mimulus (guttatus)</i> Alliance	Common monkey flower seeps	G4? S3?	No
<i>Poa secunda</i> Alliance	Curley bluegrass grassland	G4 S3?	No
<i>Scirpus microcarpus</i> Alliance	Small-fruited bulrush marsh	G4 S2	No
<i>Woodwardia fimbriata</i>	Woodwardia thicket	G3 S3.2	No
	North Coast Bluff Scrub	G2 S2.1	No
	Northern Coastal Terrace Prairie	G2 S2.1	No
Aquatic Vegetation			
<i>Hydrocotyle (ranunculoides)</i>	Mats of floating pennywort	G4 S3?	No
<i>Nuphar lutea</i> Provisional Alliance	Yellow pond-lily mats	G5 S3?	No
<i>Oenanthe sarmentosa</i> Alliance	Water-parsley marsh	G4 S2?	No
<i>Sarcocornia pacifica (Salicornia)</i>	Pickleweed mats	G4 S3	No
<i>Sparganium (angustifolium)</i> Alliance	Mats of bur-reed leaves	G4 S3?	No
<i>Typha (angustifolia, domingensis)</i>	Cattail marshes	G5 S5	No

Special-Status Wildlife with Potential Occurrence on the Project Site.								
Scientific name	Common Name	Federal Status	State Status	G	S	Organization: Code	Habitat	Observed
INVERTEBRATES								
<i>Helminthoglypta arrosa pomoensis</i>	Pomo bronze shoulderband snail	None	None	G2G3T1	S1	IUCN:DD	Found near the coast in heavily-timbered redwood canyons of Mendocino County, from Big River and Russian Gulch watersheds. Found under redwoods. Generally, in somewhat moist duff. Found in scrub in forest opening under a power line in Russian Gulch.	No
<i>Bombus caliginosus</i>	Obscure Bumblebee	None	None	G4?	S1S2	IUCN_VU	Inhabits open grassy coastal prairies and Coast Range meadows. Nesting occurs underground as well as above ground in abandoned bird nests. Males patrol circuits in search of mates. Reported to DFW as within 5 miles of project site. This species is very similar to the common yellow-faced bumblebee (<i>Bombus vosnesenskii</i>), differentiated by the structure of the male genitalia. The obscure bumblebee tends to have longer hairs, however, and yellow hairs are found on the underside of the abdomen.	No
<i>Bombus occidentalis</i>	Western bumble bee	None	None	GU	S1	XERCES:IM	Populations in central California have declined since the 1990's. It visits flowers in a variety of habitats. Identified by a white patch on its abdomen hind tip. None recorded from coastal Mendocino County at http://www.xerces.org/bumblebees .	No
<i>Coelus globosus</i>	Globose dune beetle	None	None	G1	S1	IUCN:VU	Subterranean beetle that tunnels through sand under dune vegetation. Since coastal dune habitat in California is diminishing, the beetle is a special-status species.	No
<i>Lycaeides argyrognomon lotis</i>	lotis blue butterfly	Endangered	None	G5TH	SH	XERCES:CI	Not seen since 1983. It is primarily from Mendocino County but historically from northern Sonoma and possibly Marin Counties. Inhabits wet meadows, damp coastal prairie, and potentially bogs or poorly-drained sphagnum-willow bogs where soils are waterlogged and acidic. Presumed host plant is <i>Hosackia gracilis</i> .	No
<i>Noyo interessa</i>	Ten Mile shoulderband snail	None	None	G2	S2	None	Known from a few locations in Mendocino County with limited habitat information. Known from Ten Mile Dunes.	No
<i>Speyeria zerene behrensi</i>	Behren's silverspot butterfly	Endangered	None	G5T1	S1	XERCES:CI	Historically from near the City of Mendocino, Mendocino County, south to the area of Salt Point State Park, Sonoma County. Now presumed to be from Manchester south to Salt Point area. Inhabits coastal terrace prairie with caterpillar host plants: violet (<i>Viola adunca</i>) and adult nectar sources: thistles, asters, etc.	No
FISH								
<i>Entosphenus tridentatus</i>	Pacific lamprey	None	None	G5	S4	AFS:VU	Anadromous lamprey found in freshwater rivers around the Pacific Rim, from Japan to Baja California. Adult Pacific Lamprey spawn in habitat similar to salmon: low gradient stream reaches, in gravel, often at the tailouts of pools and riffles.	No
<i>Lampetra ayresii</i>	River lamprey	None	None	G4	S4	AFS:VU DFG:SSC	Anadromous lamprey that uses riffle and side channel habitats for spawning and for ammocoete rearing where good water quality is essential. Adult Pacific Lamprey spawn in habitat similar to salmon: low gradient stream reaches, in gravel, often at the tailouts of pools and riffles.	No
<i>Oncorhynchus kisutch</i>	Coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	G4T2Q	S2?	AFS:TH DFG:SSC	Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	No
<i>Oncorhynchus mykiss irideus</i>	steelhead-northern California DPS	Threatened	None	G5T2Q	S2	AFS:TH DFG:SSC	Cool, swift, shallow water and clean loose gravel for spawning.	No
<i>Oncorhynchus tshawytscha</i>	chinook salmon - California coastal ESU	Threatened	None	G5	S2	AFS:TH	Adults depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps >27° C lethal to adults.	No
<i>Lavinia symmetricus navarroensis</i>	Navarro roach	None	None	G5T1T2	S1S2	DFG:SSC	Habitat generalists. Found in warm intermittent streams as well as cold, well-aerated streams. Found in the lower, warmer reaches of streams in the Russian and Navarro River drainages.	No
<i>Lavinia symmetricus parvipinnis</i>	Gualala roach	None	None	G5T1T2	S1S2	DFG:SSC	Habitat generalists. Found in warm intermittent streams as well as cold, well-aerated streams.	No
<i>Eucyclogobius newberry</i>	tidewater goby	Endangered	None	G3	S2S3	AFS:EN DFG:SSC IUCN:VU	Brackish water habitats along the California coast from Agua Hedionda lagoon, San Diego Co. to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	No
AMPHIBIANS & REPTILES								
<i>Rhyacotriton variegatus</i>	southern torrent (=seep) salamander	None	None	G3G4	S2S3	DFG:SSC IUCN:LC USFS:S	Found in Coastal redwood, Douglas fir, mixed conifer, montane riparian, and montane hardwood-conifer forests from northern California south to Point Arena. Aquatic habitat includes permanent cold creeks, streams and seepages with low water flow, associated with moss-covered rocks within trickling water and the splash zone of waterfalls; old-growth coniferous forests with closed canopy; <50% cobble in creeks, remainder mixture of pebble, gravel and sand.	No
<i>Ascaphus truei</i>	Pacific tailed frog	None	None	G4	S2S3	DFG:SSC IUCN:LC	Occurs in montane hardwood-conifer, redwood, Douglas-fir and ponderosa pine habitats. Coastal from Anchor Bay, Mendocino Co. to Oregon border. Cold, clear, rocky streams in wet forests. They do not inhabit ponds or lakes. A rocky streambed is necessary for cover for adults, eggs, and larvae. After heavy rains, adults may be found in the woods away from the stream.	No
<i>Rana aurora aurora</i>	northern red-legged frog	None	None	G4T4	S2?	DFG:SSC USFS:S	Found in humid forests, woodlands, grasslands, and streambanks in northwestern California. Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season. Integration zone between northern and California species is between Manchester and Elk.	No
<i>Rana aurora draytonii</i>	California red-legged frog	Threatened	None	G4T2T3	S2S3	DFG:SSC IUCN:VU	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	No
<i>Rana boylei</i>	foothill yellow-legged frog	None	None	G3	S2S3	BLM:S DFG:SSC IUCN:NT USFS:S	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying.	No
<i>Emys marmorata marmorata</i>	western pond turtle	None	None	G3G4	S3	BLM:S DFG:SSC IUCN:VU USFS:S	Former scientific name: <i>Clemmys marmorata marmorata</i> . Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nests sites may be found up to 0.5 km from water.	No
BIRDS								
<i>Phalacrocorax auritus</i>	double-crested cormorant (nesting colony)	None	None	G5	S3	DFG:WL IUCN:LC	Rookery site: colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	No
<i>Ardea alba</i>	great egret (nesting colony)	None	None	G5	S4	CDF:S IUCN:LC	Rookery: colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	No
<i>Ardea herodias</i>	great blue heron (nesting colony)	None	None	G5	S4	CDF:S IUCN:LC	Rookery: colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	No
<i>Egretta thula</i>	Snowy egret (nesting colony)	None	None	G5	S4	CDF:S IUCN:LC	Rookery: colonial nester, with nest sites situated in protected beds of dense tule. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	No
<i>Accipiter cooperii</i>	Cooper's hawk (nesting)	None	None	G5	S3	DFG:WL IUCN:LC	Nesting: woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	No
<i>Accipiter gentilis</i>	northern goshawk (nesting)	None	None	G5	S3	BLM:S CDF:S DFG:SSC IUCN:LC USFS:S	Nesting: within and in vicinity of coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodge pole pine, Jeffrey pine, and aspens are typical nest trees. Northern goshawks typically nest in conifer forests containing large trees and an open understory on the west slope of the Sierra. There is historic nesting in Big River and Pudding Creek. Winter migrant on the coast.	No
<i>Accipiter striatus</i>	sharp-shinned hawk (nesting)	None	None	G5	S3	DFG:WL	Nesting: ponderosa pine, black oak, riparian deciduous, mixed conifer and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes, with plucking perches are critical requirements. Nests usually within 275 ft. of water. Nests in dense, even-aged, single-layered forest canopy, usually nests in dense, pole and small-tree stands of conifers, which are cool, moist, well shaded, with little ground-cover, near water.	No

Special-Status Wildlife with Potential Occurrence on the Project Site.								
Scientific name	Common Name	Federal Status	State Status	G	S	Organization: Code	Habitat	Observed
<i>Aquila chrysaetos</i>	golden eagle (nesting & wintering)	None	None	G5	S3	CDF:S DFG:FP DFG:WL IUCN:LC USFWS:BCC	Nesting and wintering: rolling foothills mountain areas, sage-juniper flats, desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	No
<i>Buteo regalis</i>	ferruginous hawk (wintering)	None	None	G4	S3S4	DFG:WL IUCN:LC USFWS:BCC	Usually east of the coastal belt, uncommon migrant in coastal Mendocino County seen in open areas such as Bald Hill and Manchester. Feeding habitat in open, treeless areas. Does not breed in California.	No
<i>Circus cyaneus</i>	Northern harrier (nesting)	None	None	G5	S3	DFG:SSC IUCN:LC	Northern harriers prefer sloughs, wet meadows, marshlands, swamps, prairies, plains, grasslands, and shrublands and perch on structures such as fence posts. Nesting habitat: nest on the ground, usually near water, or in tall grass, open fields, clearings, or on the water on a stick foundation, willow clump, or sedge tussock. Most nests built within patches of dense, often tall, vegetation (e.g., cattails) in undisturbed areas. They usually nest near hunting grounds. Foraging: They need open, low woody or herbaceous vegetation for nesting and hunting.	No
<i>Elanus leucurus</i>	white-tailed kite (nesting)	None	None	G5	S3	DFG:FP IUCN:LC	Nesting: rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland, open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching. Winter congregation of at least 20 birds seen at Manchester State Park in early 2000's. One nest known from a THP in Albion ~2006; nest was at the edge of conifer forest with no pasture immediately adjacent.	No
<i>Haliaeetus leucocephalus</i>	bald eagle (nesting & wintering)	Delisted	Endangered	G5	S2	CDF:S DFG:FP IUCN:LC USFS:S USFWS:BCC	Nesting and wintering: ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter. Known from winter in Lake Cleone, MacKericher State Park and Little River.	No
<i>Pandion haliaetus</i>	Osprey (nesting)	None	None	G5	S3	CDF:S DFG:WL IUCN:LC	Nesting: ocean shore, bays, fresh-water lakes, and larger streams. Large nests built in tree-tops within 6-7 to 15 miles of good fish-producing body of water. Flattened portions of partially broken off snags, trees, rocks, dirt pinnacles, cacti, and numerous man-made structures such as utility poles and duck blinds are used for nests. Furthest nest inland may be McGuire's Pond.	No
<i>Falco columbarius</i>	Merlin (wintering)	None	None	G5	S3	DFG:WL IUCN:LC	General wintering habitat: Uncommon winter migrants on the coast. Habitat apparently similar to breeding habitat, (open forest and grasslands). Regularly hunts prey (e.g., shorebirds) concentrated on tidal flats. Often winters in cities throughout its range, where frequently perches on buildings, power poles, and tall trees. Also winters in open woodland, grasslands, open cultivated fields, marshes, estuaries, and seacoasts. Frequents open habitats at low elevation near water and tree stands.	No
<i>Falco peregrinus anatum</i>	American peregrine falcon (nesting)	Delisted	Delisted	G4T3	S2	CDF:S DFG:FP USFWS:BCC	Nesting: near wetlands, lakes, rivers, or other water: on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	No
<i>Charadrius alexandrinus nivosus</i>	western snowy plover (nesting)	Threatened	None	G4T3	S2	ABC:WLBCC DFG:SSC USFWS:BCC	Nesting: federal listing applies only to the pacific coastal population. Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting. Sand spits, dune-backed beaches, unvegetated beach strands, open areas around estuaries, and beaches at river mouths are the preferred coastal habitats for nesting. Less common nesting habitat includes salt pans, coastal dredged spoil disposal sites, dry salt ponds, and salt pond levees and islands.	No
<i>Haematopus bachmani</i>	Black oystercatcher (nesting)	None	None	G5	S2	IUCN:LC USFWS:BCC	From the Aleutian Islands to Baja California, the forage on intertidal macroinvertebrates along gravel or rocky shores and in the southern part of their range nest primarily on rocky headlands and offshore rocks.	No
<i>Larus californicus</i>	California gull (nesting)	None	None	G5	S2	DFG:WL IUCN:LC	Colony nesters and usually occurring on an island or vegetated offshore rock.	No
<i>Brachyramphus marmoratus</i>	marbled murrelet (nesting)	Threatened	Endangered	G3G4	S1	ABC:WLBCC CDF:S IUCN:EN	Nesting: feeds near-shore; nests inland along coast, from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir. Presence of platforms (flat surface at least four inches in diameter) appears to be the most important stand characteristic for predicting murrelet presence. Stands can be: 1) mature (with or without an old-growth component); 2) old-growth; 3) young coniferous forests with platforms; and 4) include large residual trees in low densities sometimes less than one tree per acre.	No
<i>Fratercula cirrhata</i>	tufted puffin (nesting colony)	None	None	G5	S2	DFG:SSC IUCN:LC	Nesting colony: open-ocean bird; nests along the coast on islands, islets, or (rarely) mainland cliffs free of human disturbance and mammalian predators. Nests in burrows or rock crevices when sod or earth is unavailable for burrowing. Occurs year-round offshore near breeding colonies in northern California, but more common in winter. Breeding records from Goat Rock, Mendocino Headlands State Park.	No
<i>Athene cunicularia</i>	burrowing owl (burrow sites and some winter sites)	None	None	G4	S2	BLM:S DFG:SSC IUCN:LC USFWS:BCC	Burrow sites: open, dry annual or perennial grasslands, deserts and scrublands, and dunes characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	No
<i>Strix occidentalis caurina</i>	northern spotted owl	Threatened	None	G3T3	S2S3	ABC:WLBCC CDF:S DFG:SSC IUCN:NT	Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests w/patches of big trees. High, multistoried canopy dominated by big trees, many trees w/cavities or broken tops, woody debris, and space under canopy.	No
<i>Chaetura vauxi</i>	Vaux's swift (nesting)	None	None	G5	S3	DFG:SSC IUCN:LC	Nesting: redwood, Douglas fir, and other coniferous forests. Nests in large hollow trees and snags. Often nests in flocks. Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes. The most important habitat requirement appears to be an appropriate nest-site in a large, hollow tree. Forages over most terrains and habitats, often high in the air. Shows an apparent preference for foraging over rivers and lakes.	No
<i>Selasphorus rufus</i>	rufous hummingbird (nesting)	None	None	G5	S1S2	IUCN:LC USFWS:BCC	Breeds in open or shrubby areas, forest openings, yards and parks, and sometimes in forests, thickets, and meadows. Late winter and spring migrant on the California coast. Breeding range from southwest Alaska and as far south as northwestern California.	No
<i>Selasphorus sasin</i>	Allen's hummingbird (nesting)	None	None			ABC:WLBCC IUCN:LC USFWS:BCC	Breeds only along a narrow strip of coastal California and southern Oregon. Nests in densely vegetated areas and forests. An early migrant compared with most North American birds, arriving in summer breeding grounds as early as January. Breeds in moist coastal areas, scrub, chaparral, and forests. Winters in forest edge and scrub clearings with flowers.	No
<i>Picoides nuttalli</i>	Nuttall's woodpecker (nesting)	None	None	G5	SNR	ABC:WLBCC IUCN:LC	Ranging from west of the Cascade mountains and in the Sierra Nevada from southern Oregon to Northern Baja California. Nests are excavated in dead branches or snags of various trees, usually in close association with oak woodlands and riparian zone, habitat vulnerable to development. At least one Mendocino Coast record from 2011 Audubon Christmas Bird Count.	No
<i>Sphyrapicus ruber</i>	red-breasted sapsucker	None	None	G5	SNR	None	Breeds primarily in coniferous forests, but also uses deciduous and riparian habitat, as well as orchards and power line corridors. The nest is a hole usually dug in a live deciduous tree (e.g. alder, willow, madrone) with possible preference for larger trees showing decay-softened wood.	No
<i>Contopus cooperi</i>	olive-sided flycatcher (nesting)	None	None	G4	S4	ABC:WLBCC DFG:SSC IUCN:NT USFWS:BCC	Breeds in montane and northern coniferous forests, at forest edges and openings, such as meadows and ponds. Tall standing dead trees are used as perch trees for catching flying insects. Accordingly, an open canopy is a key components of suitable habitat. Nest is an open cup of twigs, rootlets, and lichens, placed out near tip of horizontal branch of a tree.	No
<i>Progne subis</i>	purple martin	None	None	G5	S3	DFG:SSC IUCN:LC	Nesting: inhabits woodlands, low elevation coniferous forest of Douglas fir, Ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures such as weep holes in bridges. Nest often located in tall, isolated trees and snags. Nesting on the Mendocino Coast known, in part, from Juan Creek, Ten Mile, Noyo, and Big River, and snags from Ten Mile River to Pudding Creek. Need open foraging habitats.	No

Special-Status Wildlife with Potential Occurrence on the Project Site.								
Scientific name	Common Name	Federal Status	State Status	G	S	Organization: Code	Habitat	Observed
<i>Dendroica occidentalis</i>	hermit warbler (nesting)	None	None	G4G5	S3?	ABC:WLBCC IUCN:LC	Breeding range is relatively limited to the Pacific Coast and the Cascade and Sierra Nevada mountain ranges of Washington, Oregon, and California. Some winter along the coastal central and southern California, but most winter primarily in the mountains of western Mexico and Central America. Nesting habitats in Pacific northwest are coniferous forests with a high canopy volume, generally preferring mature stands of pine and Douglas fir. Avoids areas with a high deciduous volume; absent from riparian areas and clearcuts. Birds of coniferous forests; they prefer cool, wet fir forests at elevation, and moist forests of Douglas-fir, hemlock, and western red cedar closer to sea level. Major threat to this species appears to be the degradation of breeding habitat. Not known as frequently nesting on the coast, perhaps more common inland.	No
<i>Ammodramus savannarum</i>	grasshopper sparrow (nesting)	None	None	G5	S2	DFG:SSC IUCN:LC	Nesting: dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting. Summer (breeding) resident in Mendocino County known from north of Ten Mile River.	No
<i>Agelaius tricolor</i>	tricolored blackbird (nesting colony)	None	None	G2G3	S2	ABC:WLBCC BLM:S DFG:SSC IUCN:EN USFWS:BCC	Nesting colony: highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, such as cattails and foraging area with insect prey within a few km of the colony. Known inland from McGuire's Pond.	No
<i>Mammals</i>								
<i>Antrozous pallidus</i>	pallid bat	None	None	G5	S3	BLM:S DFG:SSC IUCN:LC USFS:S WBWG:H	A wide variety of habitats deserts, grasslands, shrublands, woodlands and forests from sea level up through mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting. A yearlong resident in most of the range. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings where there is protection from high temperatures.	No
<i>Corynorhinus townsendi</i>	Townsend's big-eared bat	None	None	G4	S2S3	BLM:S DFG:SSC IUCN:LC USFS:S WBWG:H	Generally found in the dry uplands throughout the West, but also occur in mesic coniferous and deciduous forest habitats along the Pacific coast. Unequivocally associated with areas containing caves and cave-analogs for roosting habitat. Requires spacious cavern-like structures for roosting during all stages of its life cycle. Typically, they use caves and mines, but have been noted roosting in large hollows of redwood trees, attics and abandoned buildings, lava tubes, and under bridges. Extremely sensitive to disturbance.	No
<i>Lasiorycteris noctivagans</i>	silver-haired bat	None	None	G5	S3S4	IUCN:LC WBWG:M	Ranges throughout California in coastal and montane forests. May be found anywhere in California during spring and fall migrations. Primarily a forest (tree-roosting) bat associated with north temperate zone conifer and mixed conifer/hardwood forests. Prefers forested (frequently coniferous) areas adjacent to lakes, ponds, and streams. During migration, sometimes occurs in xeric areas. Roosts in dead or dying trees with exfoliating bark, extensive vertical cracks, or cavities, rock crevices, and occasionally under wood piles, in leaf litter, under foundations, and in buildings, mines and caves. The primary threat is likely loss of roosting habitat due to logging practices that fail to accommodate the roosting needs.	No
<i>Lasiurus blossevilli</i>	western red bat	None	None	G5	S3?	DFG:SSC IUCN:LC	Locally common in some areas of California from Shasta County south to the Mexican border. California Central Valley is the species' primary breeding region. Species appears to be strongly associated with riparian habitats for roosting and foraging, particularly mature stands/large diameter of cottonwood/sycamore. Roosts in woodland borders, rivers, agricultural areas, and urban areas with mature trees in the foliage of large shrubs and trees, usually sheltering on the underside of overhanging leaves. It often hangs from one foot on the leaf petiole and may resemble a fruit or dead leaf. Rarely observed roosting in mines.	No
<i>Lasiurus cinereus</i>	hoary bat	None	None	G5	S4?	IUCN:LC WBWG:M	Most widespread North American bat. Solitary species that winters along the coast and in southern California. Roosts in foliage of trees near ends of branches. Blends with the bark of trees. Highly associated with forested habitats but can be found in suburbs with old, large trees.	No
<i>Myotis evotis</i>	long-eared myotis bat	None	None	G5	S4?	BLM:S IUCN:LC WBWG:M	Widespread in California, but generally is believed to be uncommon in most of its range. It avoids the arid Central Valley and hot deserts, occurring along the entire coast and interior mountains. Found in nearly all brush, woodland, and forest habitats, from sea level to at least 9,000 ft., but coniferous woodlands and forests seem to be preferred. Roosts in loose bark in tall, open-canopied snags; slumps in south-facing clear-cuts with minimal vegetation overgrowth in younger forests, and conifer snags in older forests, rocks, caves, bridges and abandoned mines.	No
<i>Myotis yumanensis</i>	Yuma myotis bat	None	None	G5	S4?	BLM:S IUCN:LC WBWG:LM	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	No
<i>Apelodontia rufa nigra</i>	Point Arena mountain beaver	Endangered	None	G5T1	S1	DFG:SSC IUCN:LC	Generally known from 2 miles north or bridgeport Landing to 3 miles south of the town of Point Arena. Coastal areas often near springs or seepages; mesic coastal scrub, northern dune scrub, edges of conifer forests, and riparian plant communities. North facing slopes of ridges and gullies with friable soils and thickets of <i>condalia</i> .	No
<i>Arborimus pomo</i>	Sonoma tree vole	None	None	G3	S3	DFG:SSC IUCN:NT	Species split into red tree vole and Sonoma tree vole; approximate boundary between two species is Klamath River. Inhabits north coast fog belt from Oregon border to Sonoma Co. in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood-conifer habitats. Feeds almost exclusively on Douglas-fir needles. Will occasionally take needles of pine, grand fir, hemlock or spruce.	No
<i>Martes americana humboldtensis</i>	Humboldt marten	None	None	G5T2T3	S2S3	DFG:SSC USFS:S	Endemic to the coastal forests of northwestern California with a historical range described as "the narrow northwest humid coast strip, chiefly within the redwood belt" from the Oregon border to northern Sonoma county. However, the one known remnant Humboldt marten population occurs in the north-central portion of the described range in an area dominated by Douglas-fir and lanoak. Typically associated with closed-canopy, late-successional, mesic coniferous forests with complex physical structure near the ground. Very rare on the Mendocino coast.	No
<i>Martes pennanti (pacific) DPS</i>	Pacific fisher	Candidate	None	G5	S2S3	BLM:S DFG:SSC USFS:S	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Use cavities, snags, logs and rocky areas for cover and denning. Need large areas of mature, dense forest. Very rare on the Mendocino coast.	No

Taxon By Family		Common Name
FERNS AND ALLIES		
Blechnaceae		
	<i>Blechnum spicant</i>	deer fern
Dennstaedtiaceae		
	<i>Pteridium aquilinum var. pubescens</i>	bracken; western bracken; hairy bracken fern
Dryopteridaceae		
	<i>Athyrium filix-femina</i>	lady fern
	<i>Polystichum munitum</i>	western sword fern
GYMNOSPERMS		
Pinaceae		
	<i>Pinus muricata</i>	Bishop pine; prickly-cone pine; bull pine
	<i>Pseudotsuga menziesii var. menziesii</i>	Douglas fir
	<i>Tsuga heterophylla</i>	western hemlock
Taxodiaceae		
	<i>Sequoia sempervirens</i>	coast redwood
DICOTS		
Aquifoliaceae		
	<i>Ilex aquifolium</i>	English holly
Asteraceae		
	<i>Baccharis pilularis var. consanguinea</i>	coyote brush
	<i>Bellis perennis</i>	English daisy
	<i>Cirsium vulgare</i>	bull thistle
	<i>Hypochaeris radicata</i>	rough cat's ear, hairy cat's ear
	<i>Senecio minimus</i>	little erechites, Australian fireweed
	<i>Sonchus asper ssp. asper</i>	prickly sow thistle
Berberidaceae		
	<i>Berberis aquifolium</i>	Oregon grape, holly leaf berberis
Boraginaceae		
	<i>Myosotis discolor</i>	changing forget me not
Caprifoliaceae		
	<i>Lonicera hispidula</i>	hairy honeysuckle
Caryophyllaceae		
	<i>Stellaria media</i>	common chickweed
Ericaceae		
	<i>Arctostaphylos columbiana</i>	redwood manzanita, hairy manzanita
	<i>Gaultheria shallon</i>	salal
	<i>Rhododendron macrophyllum</i>	California rose-bay
	<i>Vaccinium ovatum</i>	California huckleberry
	<i>Vaccinium parvifolium</i>	red huckleberry
Fabaceae		
	<i>Acmispon strigosus</i>	strigose lotus
	<i>Cytisus scoparius</i>	Scotch broom
	<i>Lotus corniculatus</i>	bird's-foot trefoil, Birdfoot deervetch
	<i>Medicago polymorpha</i>	California burclover, Bur clover, Bur medic
	<i>Trifolium campestre</i>	hop clover, Field clover, Low hop clover
	<i>Trifolium dubium</i>	shamrock, Shamrock clover, Suckling clover
	<i>Trifolium glomeratum</i>	Clustered clover
	<i>Trifolium wormskioldii</i>	cows clover, coast clover
	<i>Vicia sativa</i>	vetch
Fagaceae		
	<i>Notholithocarpus densiflorus var. densiflorus</i>	tanoak

Taxon By Family		Common Name
Linaceae		
	<i>Linum bienne</i>	pale flax, narrow leaved flax
Myricaceae		
	<i>Morella californica</i>	wax-myrtle
Plantaginaceae		
	<i>Digitalis purpurea</i>	purple foxglove
	<i>Plantago lanceolata</i>	English plantain, ribwort, narrow leaved plantain, ribgrass
Polemoniaceae		
	<i>Navarretia mellita</i>	honey-scented pincushionplant, skunk naverretia
Polygonaceae		
	<i>Polygonum paronychia</i>	beach knotweed
	<i>Rumex acetosella</i>	common sheep sorrel
	<i>Rumex crispus</i>	curly dock
Primulaceae		
	<i>Lysimachia arvensis</i>	scarlet pimpernel, poor man's weathervane
Ranunculaceae		
	<i>Ranunculus californicus</i>	California buttercup
Rhamnaceae		
	<i>Frangula purshiana</i>	cascara buckthorn
Rosaceae		
	<i>Cotoneaster pannosus</i>	woolly cotoneaster
	<i>Malus sp.</i>	Apple Tree
	<i>Prunus domestica</i>	European plum
	<i>Rosa sp.</i>	
	<i>Rubus armeniacus</i>	Himalaya-berry, Himalayan blackberry
	<i>Rubus ursinus</i>	California blackberry
Rubiaceae		
	<i>Galium aparine</i>	common bedstraw; cleavers; goose-grass
MONOCOTS		
Cyperaceae		
	<i>Carex leptopoda</i>	slender-footed sedge
	<i>Carex tumulicola</i>	split-awn sedge
Iridaceae		
	<i>Iris douglasiana</i>	Douglas' iris
Juncaceae		
	<i>Juncus hesperius</i>	coast or bog rush
	<i>Juncus patens</i>	common rush, spreading rush
	<i>Luzula comosa</i>	hairy wood rush
Poaceae		
	<i>Agrostis capillaris</i>	colonial bentgrass
	<i>Aira caryophyllea</i>	silver European hairgrass, hairgrass
	<i>Anthoxanthum odoratum</i>	sweet vernal grass
	<i>Briza maxima</i>	big quaking grass; rattlesnake grass
	<i>Calamagrostis nutkaensis</i>	Pacific reedgrass
	<i>Festuca perennis</i>	Italian rye grass
	<i>Holcus lanatus</i>	velvet grass
	<i>Rytidosperma penicillatum</i>	purple awned wallaby grass; hairy oat grass
	<i>Festuca myuros</i>	rattail sixweeks grass
Sparganiaceae		
	<i>Sparganium emersum ssp. emersum</i>	Emersed bur weed

ENVIRONMENTALLY SENSITIVE HABITAT AREAS DEFINED

Definition of Environmentally Sensitive Habitat Area

The Mendocino County Local Coastal Plan (LCP) and the California Coastal Act (CCA) define an Environmentally Sensitive Habitat Area (ESHA) as:

“any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments”.

[emphasis given]

The Mendocino County LCP and California Coastal Commission (CCC) have identified specific types of ESHAs including: wetlands, sand dunes, estuaries, streams, rivers, lakes, open coastal waters, coastal waters, riparian habitats, other resource areas, special status species, and the habitat of special status species. For the purpose of this report, the following definitions were used to assess potential ESHAs present in the study area.

Wetland ESHAs

The Mendocino County Local Coastal Plan (LCP) and the California Coastal Act (CCA) define wetlands as:

“Lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.”

California Coastal Commission Administrative Regulations (Section 13577 (b)) provide the following detailed definition:

“Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats.” In summary, a wetland in the coastal zone falls under CCA jurisdiction if any of the following conditions are present: wetland hydrology, dominance of wetland vegetation (hydrophytes), and/or presence of hydric soils.”

The Statewide Interpretive Guidelines for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas (CCC 1981) use the CCA definition to establish technical criteria to delineate wetlands. These guidelines consider wetland hydrology as the most important parameter to identify a wetland within the coastal zone: “the single feature that most wetlands share is soil or substrate that is at least periodically saturated with or covered by water, and this is the feature used to describe wetlands in the Coastal Act. The water creates severe physiological problems for all plants and animals except those that are adapted for life in water or in saturated soil, and therefore only plants adapted to these wet conditions (hydrophytes) could thrive in these wet (hydric) soils. Thus, the presence or absence of hydrophytes and hydric soils make excellent physical parameters upon which to judge the existence of wetland habitat areas for the purposes of the Coastal Act, but they are not the sole criteria.” The saturation of soil in a wetland must be at or near the surface (approximately one foot or less) for a period of time (usually more than two weeks) in order to facilitate anaerobic

soil reduction processes that produce wetland conditions.

Identifying the presence of either wetland classified plants or hydric soils is referred to as the “one parameter approach.” This approach can be useful because wetland plants, wetland hydrology, and/or hydric soils often co-occur, especially in natural undisturbed areas. However, situations do exist where wetland classified plants are found in the absence of other wetland conditions. These areas are not wetlands and a delineation study must carefully scrutinize whether the wetland classified plants that are growing as hydrophytes in anaerobic soil conditions caused by wetland hydrology or not.

Examples of hydrophytic plants growing in non-wetland conditions include:

- 1) Deep-rooted trees (e.g., willows), capable of persisting in the presence of surface water or in dry conditions by tapping into deep groundwater sources; and,
- 2) Wetland-classified plants that are also salt-tolerant (e.g., alkali heath) can grow in the presence of either wetland conditions or saline soil conditions, but not necessarily both.

Similarly, hydric soils can be found in the absence of wetland hydrology or wetland classified plants. For example, hydric soils have been observed in upland areas where historic disturbances exposed substratum and in densely vegetated grasslands (Mollisols). A wetland delineation must determine if the hydric soil indicators are a result of frequent anaerobic conditions in the presence of hydrology or due to another cause.

In the Coastal Zone, the California Coastal Commission presumes an area is a wetland if any one of the following three-wetland indicators is present: wetland hydrology, wetland plants, or hydric soils. Exceptions to this exist if there is strong positive evidence of upland conditions, which should be obtained during the wet season. Evidence of upland conditions could include the following observations: a given area saturates only ephemerally following a substantial rainfall, soil is very permeable with no confining layer, or the land is steep and drains rapidly.

Hydrology: Depressions, seeps, and topographic low areas in the Study Area are surveyed for primary and secondary hydrological indicators. Primary indicators of wetland hydrology that offer direct evidence include: visible inundation or saturation, surface sediment deposits, oxidized root channels, and drift lines. Secondary indicators that offer indirect evidence include algal mats, shallow restrictive layers in the soil, or vegetation meeting the FAC-neutral test.

Soils: The Study Area is examined for hydric soil indicators according to Natural Resources Conservation Service guidelines (USDA 2006) where horizon depths, color, redoximorphic features, and texture characterize soil profiles. Soils formed under anaerobic wetland conditions generally have a low chroma matrix color, designated 0, 1, or 2, and contain mottles or other redoximorphic features. Soil color and chroma was determined using a Munsell soil color chart (Gretag Macbeth 2000) to identify soils as hydric.

Plants: The US Army Corps of Engineers developed a classification system for plant species known to occur in wetlands. The plant species are categorized based on the frequency that they have been observed in wetlands. Species classified as obligate (OBL), Facultative Wetland (FACW), and Facultative (FAC) are considered hydrophytic. If more than 50 percent of the plant species in a given area are hydrophytic, the area meets the wetland vegetation criterion and is presumed to be a jurisdictional wetland under the CCA.



ARCHAEOLOGICAL SURVEY REPORT

**32505 ALBION RIDGE ROAD
ALBION, MENDOCINO COUNTY, CALIFORNIA**

APN 123-210-28

Prepared for:

John Johansen
33950 South Albion River Road
P.O. Box 490
Albion, CA 95410

Prepared by:

Nicholas Radtkey, B.A.
Alex DeGeorgey, M.A., RPA
Alta Archaeological Consulting
2681 Cleveland Avenue
Santa Rosa, CA 95403

ALTA2021-107

Key Words: USGS 7.5' Elk Quadrangle; 4.9-acre survey area; Township 16 North, Range 17 West, Section 27, Mount Diablo Base and Meridian; Negative findings.

November 9, 2021

TABLE OF CONTENTS

I. SUMMARY OF FINDINGS	1
II. INTRODUCTION	1
III. PROJECT DESCRIPTION AND LOCATION	1
IV. REGULATORY CONTEXT	6
V. BACKGROUND.....	7
Environment	7
Prehistory	7
Ethnography	8
History	9
VI. SOURCES CONSULTED.....	11
Records Search.....	11
Historic Map Review	12
Ethnographic Literature Review.....	13
Native American Communication	14
VII. FIELD METHODS	14
VIII. STUDY FINDINGS AND MANAGEMENT RECOMMENDATIONS	15
Study Findings.....	15
Management Recommendations.....	15
IX. REFERENCES CITED	17

LIST OF FIGURES

Figure 1. Project Vicinity.....	2
Figure 2. Project Location	3
Figure 3. Project Area	4
Figure 4. Site Plan (adapted from Johansen 2017).....	5
Figure 5. Survey Coverage	16

LIST OF TABLES

Table 1. Summary of Previous Cultural Resources Studies within Search Radius	11
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ATTACHMENTS

Attachment A – Records Search Results
Attachment B – Native American Consultation
Attachment C – Photo Sheet

I. SUMMARY OF FINDINGS

The following Archaeological Survey Report (ASR) documents the adequacy of identification efforts and presents the results of investigations within the limits of the proposed project and surrounding lands (Project Area). The study was designed to identify any archaeological, historical, or cultural resources located within the Project Area. Fieldwork was conducted on November 3, 2021 by Nicholas Radtkey. The survey entailed a cultural resources inventory of the Project Area and surrounding lands, approximately 4.9 acres. Ground surface visibility was generally poor due to dense grasses, undergrowth, and leaf litter. Exposed mineral soils were inspected for evidence of cultural materials. No cultural resources were identified as a result of archaeological field survey. The project, as presently designed, is not anticipated to have an adverse effect on significant cultural resources and should be allowed to proceed.

II. INTRODUCTION

Alta Archaeological Consulting (ALTA) was retained to conduct a cultural resources inventory as part of the permitting process for the construction of a single-family residence and associated outbuildings. An archaeological field survey was completed by ALTA on November 3, 2021 for the purpose of identifying cultural resources within the Project Area. The area of proposed development was surveyed, totaling approximately 4.9 acres. No cultural or historical resources were identified within the Project Area. The following cultural resources survey report documents the adequacy of identification efforts, presents the results of investigations within the Project Area boundaries, and makes recommendations for management of resources present on the property. This cultural resources evaluation report addresses the responsibilities of the California Environmental Quality Act (CEQA), as codified in Public Resources Code sections 5097, and its implementing guidelines 21082 and 21083.2.

III. PROJECT LOCATION

AND Description

The project is located in a semi-rural area north of the community of Albion in Mendocino County, California (Figure 1). It is situated on the USGS 7.5' Elk Quadrangle in section 8 of Township 16 North, Range 17 West in the Mount Diablo Base and Meridian (Figure 2). The project is set on a 20-acre parcel (123-210-28). The physical address of the parcel is 32505 Albion Ridge Road, Albion, California. The Project Area is located in a largely undeveloped parcel on a ridge between the Albion River and Little Salmon Creek (Figure 3).

The project proponent proposes to construct a 3200 square foot residence and a garage. This will require improvement of a driveway, installation of a septic tank and a disposal field, and the removal of 14 trees in the vicinity. A future guest cabin is proposed in the westernmost portion of the Project Area. These proposed constructions and alterations are indicated on Figure 4.



Figure 1. Project Vicinity

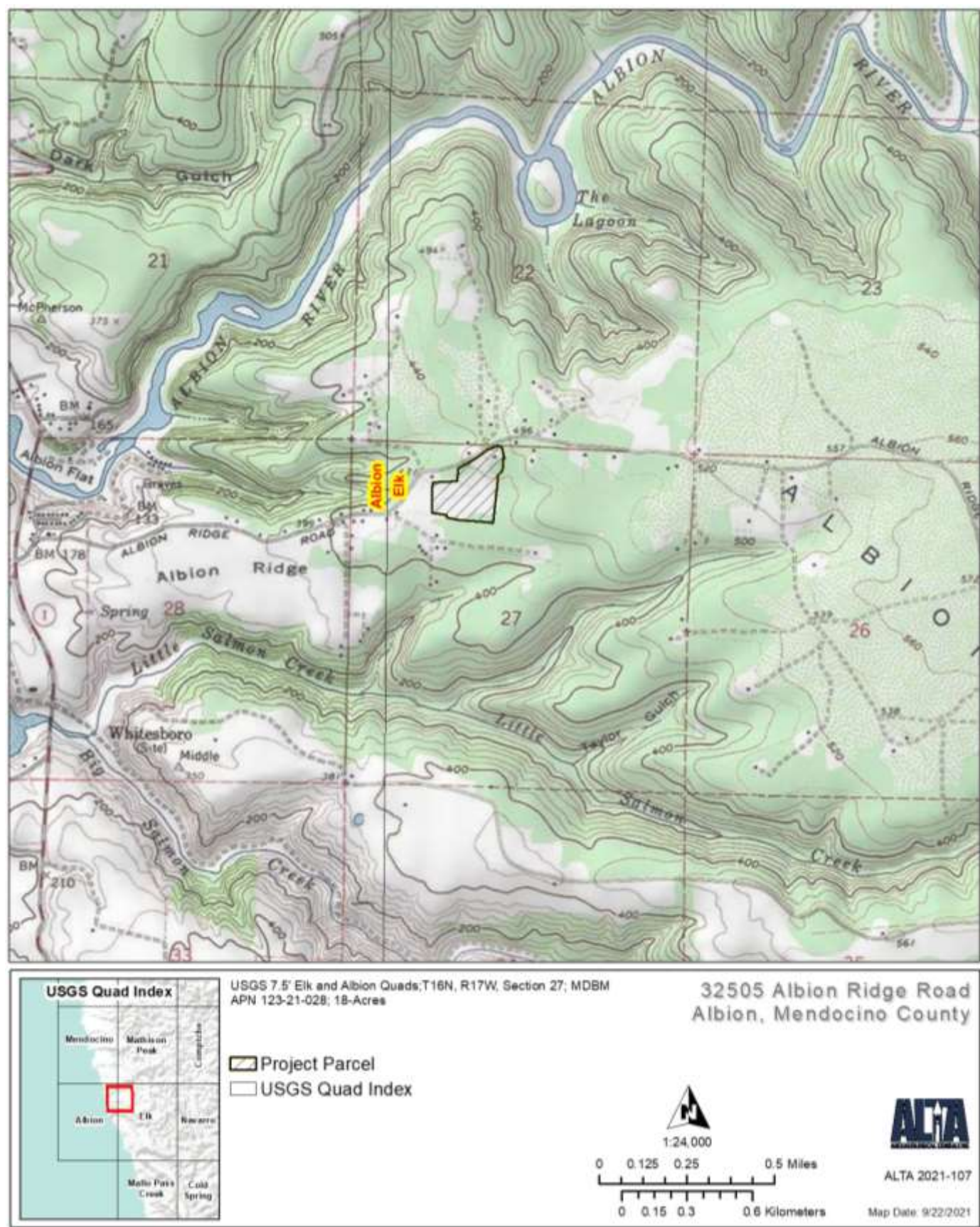


Figure 2. Project Location



Figure 3. Project Area

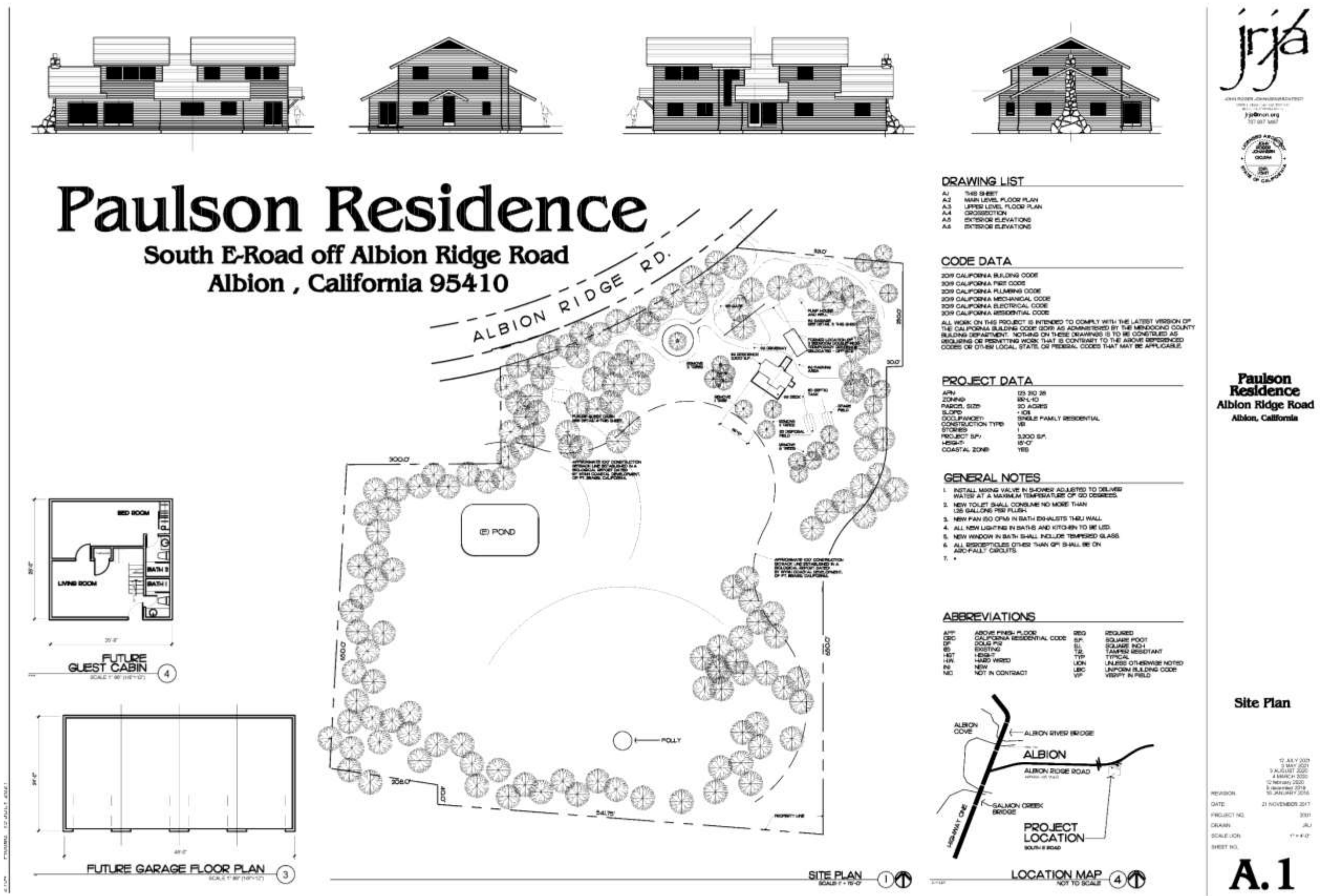


Figure 4. Site Plan (adapted from Johansen 2017)

IV. REGULATORY CONTEXT

This section briefly discusses the nature and extent of State regulations that apply to the Project. As part of the compliance process the Project must comply with CEQA as amended; and its implementing regulations and guidelines, codified in Title 14 of the California Code of Regulations (CCR), which provide agencies guidance for compliance with environmental regulations.

The CEQA applies to certain projects requiring approval by State and/or local agencies. Property owners, planners, developers, as well as State and local agencies, are responsible for complying with CEQA's requirements regarding the identification and treatment of historical resources. Applicable California regulations are found in California PRC Sections 5020 through 5029.5 and Section 21177, and in CEQA (CCR Sections 15000 through 15387). CEQA equates a substantial adverse change in the significance of a historical resource with a significant effect on the environment (PRC Section 21084.1). A substantial adverse change includes demolition, destruction, relocation, or alteration that would impair the historical significance of a resource (PRC Section 5020.1). PRC Section 21084.1 stipulates that any resource listed in, or eligible for listing in, the California Register of Historical Resource (CRHR) is presumed to be historically or culturally significant. If a resource is determined *ineligible* for listing on the CRHR, the resource is released from management responsibilities and a project can proceed without further cultural resource considerations.

Under CEQA, cultural resources that will be affected by an undertaking must be evaluated to determine their eligibility for listing in the CRHR (PRC Section 5024.1(c)). For a cultural resource to be deemed eligible for listing, it must meet at least one of the following criteria:

1. is associated with events that have made a significant contribution to the broad patterns of California History and cultural heritage; or
2. is associated with the lives of persons important to our past; or
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic value; or
4. has yielded or is likely to yield, information important to prehistory or history.

The eligibility of archaeological sites is usually evaluated under Criterion 4 –its potential to yield information important to prehistory or history. Whether or not a site is considered important is determined by the capacity of the site to address pertinent local and regional research themes. The process for considering cultural resources on CEQA projects is essentially linear, although in practice it may overlap or be compressed. Evaluating prehistoric properties involves four basic tasks: (1) development of an archaeological research design (2) field excavations, (3) laboratory analysis, and (4) report preparation and eligibility determination.

V. BACKGROUND

As the significance of cultural resources is best assessed with regard to environmental and cultural contexts, descriptions of the natural and cultural setting of the project region are presented below.

Environment

The Project Area is situated within the Coast Range geologic province (Jennings et al. 1977). The northern Coast Ranges are a geologic province comprised of numerous rugged north-south trending ridges and valleys that run parallel to a series of faults and folds. Formation of these ranges is generally attributed to events associated with subduction of the Pacific Plate beneath the western border of North America. The bedrock that underlies the region is a complex assemblage of highly deformed, fractured, and weathered sedimentary, igneous, and metamorphic rocks. The bedrock geology of the Project Area consists of Jurassic-Cretaceous age Franciscan Formation rock (Jennings et al. 1977; Schoenherr 1995:7). Rocks of this formation, the oldest in the area, are often weakly metamorphosed, and consist of greywacke shale interspersed with discontinuous bodies of ultramafic rock such as greenstone, schist, and serpentine. The repeated folding and faulting are reflected in the complex structure of Franciscan rocks and area topography (Schoenherr 1995:265). The specific bedrock geology of the Project Area is composed of Tertiary-Cretaceous coastal belt rocks, dating to between the Late Cretaceous and Pliocene. This is a primarily sedimentary formation whose major lithologic constituents are mudstone and sandstone, with minor inclusions of conglomerates, basalt, chert, schist, and limestone (Jennings et al. 1977).

Soils in the Project Area consist of a complex of the Shinglemill series loam and Gibney series loam (USDA 2003, 2006). These are poorly-drained soils formed in marine sediments, occurring on slopes of 2 to 15 percent. Within the Gibney series, A horizon extends to approximately 9 inches deep, and consists of a pale yellow (2.5YR 7/4) yellowish brown loam. From this depth, the B horizon continues to 63 inches and consists of increasingly sandy and clayey loams, darkening to a brownish yellow as it descends (USDA 2006). The Shinglemill series is similar, but consists of an E horizon instead of an A horizon (USDA 2003).

The project is located near the community of Albion, on the central coast of Mendocino County, with elevations varying from approximately 400 to 440 feet above mean sea level. The project site is situated on level terrain along the spine of Albion Ridge. The nearest water sources, the Albion River and Little Salmon Creek, flank Albion Ridge to the north and south, respectively, and are each located approximately 0.5 miles from the Project Area. The Project Area is in a mostly undeveloped rural residential lot populated with native and nonnative annual and perennial grasses. Dense deciduous forest is within and around the Project Area. Native trees in the area primarily consist of redwood (*Sequoia sempervirens*), bishop pine (*Pinus muricata*), and tanoak (*Notholithocarpus densiflorus*) (Little 1980). Undergrowth consists largely of poison oak (*Toxicodendron diversilobum*) and blackberry (*Rubus sp.*). This area is characterized by a generally cool, humid coastal climate that averages about 50 inches of rainfall annually (USDA 2006). Summers are characterized by intermittent fog, increasing in thickness into the winter. While rain is common, snow is exceedingly rare, due to the low elevation.

Prehistory

Over half a century of archaeological investigations in the North Coast Ranges has revealed a record of hunter-gatherer occupation spanning over 10,000 years. The cultural chronology of the

project area is best described as part of the overall cultural chronology for the central North Coast Ranges. David A. Fredrickson's 1973 doctoral dissertation proposed the first dated synthetic chronological periods and related cultural patterns for the region, and formed the present basis for understanding of coastal chronologies.

Paleo-Indian Period (12000-8000 BP)

The earliest documented human occupation in California, the Paleo-Indian Period was a time of variable climate, rising sea levels, and other broad scale environmental change. People lived in small, highly mobile groups, moving through broad geographic areas and leaving relatively meager archaeological remains. Archaeological sites dating to the Paleo-Indian period are rare and a small number of sites dating to this period have been identified in Northern California. The Paleo-Indian Period is recognized locally as the Post Pattern (Frederickson 1974).

Archaic Period (8000-1500 BP)

With the more stable climate of the long Archaic period, people gradually became more sedentary, new groups entered the area, and regional cultural distinctions developed. The Archaic has been divided into three sub-periods (Lower, Middle, and Upper), based on changes in sociopolitical complexity, trade networks, populations, and the introduction of new artifact types (Fredrickson 1974, 1984). Many of the archaeological sites in the northern Coast Ranges were first used in the Middle and Upper Archaic, when populations were increasing and groups moved into new areas to exploit a more diverse range of resources. By the Upper Archaic period beginning around 500 B.C., mobility decreased as the region's inhabitants became more sedentary. Subsistence strategies shifted to focus on intensive processing and storage. Numerous small villages and the beginnings of a more complex society and economy characterize the end of this period.

Emergent Period (1500 BP-colonization)

During the Emergent Period (ca. A.D. 1000 to the historic period), social complexity further developed. Settlement patterns included large centrally based villages where political leaders resided, associated hamlets, and specialized activity areas. Innovations associated with the period include the bow and arrow, small corner-notched points, and a diversity of beads and ornaments. Archaeological sites dating to this period are common throughout the northern Coast Ranges and include sites of ritual significance, such as rock art; small resource-processing areas marked by stone-tool manufacturing debris (debitage) and flaked-stone tools or milling equipment (such as mortars and pestles); or moderate- to large-sized occupation sites marked by midden soils, dietary bone and shell, and a diversity of artifacts (Fredrickson 1974, 1984).

A number of cultural chronologies have been developed for this region (cf. Basgall 1982; Fredrickson and White 1988; Hildebrandt and Hayes 1984; Jones and Hayes 1993; Layton 1990; Meighan 1955; White and King 1992; White et al. 2002). The published volume *Cultural Diversity and Cultural Change in Prehistoric Clear Lake Basin: Final Report of the Anderson Flat Project* (White et al. 2002) provides the most synthetic summary of relevant research themes and the current state of knowledge concerning prehistoric hunter-gatherer studies in the North Coast Ranges.

Ethnography

Distributed over the lands of Mendocino, Lake, and Sonoma County are the many independent bands of Pomo Indians. The following ethnographic summary is not intended as a thorough description of Pomo culture but instead is meant to provide a background to the present cultural

resource investigation with specific references to the project area. In this section, the past tense is sometimes used when referring to native peoples because this is a historical study. This convention is not intended to suggest that Pomo people only existed in the past. To the contrary, many Pomo groups have strong cultural and social identities today.

Seven distinct and mutually unintelligible languages are recognized under the rubric of Pomo (Barrett 1908; Kroeber 1925; McLendon and Oswalt 1978). These languages are delineated by geographic divisions, which include: Northern, Central, Southern, Eastern, Southeastern, Northeastern, and Southwestern (Stewart 1943). Prior to Euro-American occupation, the project area was occupied by speakers of the Northern Pomo language. The Northern Pomo occupied central Mendocino County from the coast to Clear Lake, extending just north of Fort Bragg to the Navarro River estuary in the south (McLendon and Oswalt 1978:283).

The particular group of Northern Pomo speakers that ethnographically lived in this area were known as the *mitom poma* (Stewart 1943:36-38). The *mitom poma* held territory bounded by Longvale Creek to the north, the Navarro River to the south, and to the east by Willits and Walker Valley. This broad range allowed a broad range of seasonal gathering in both coastal and interior biomes. The *mitom poma* did not live in a single unified group, but instead in small villages. These groups would periodically convene for large ceremonies. Prior to colonial intrusion, they lived in conical houses of redwood bark and poles. Interior tribes were allowed permission to pass through their territory to harvest at the ocean. However, coastal settlements were used primarily for gathering, but not for permanent residence. Long-term occupation at coastal sites such as *búldam* in Mendocino did not begin until 1851, when life in the interior became inhospitable due to settler intrusion.

History

Early Exploration

Mendocino County derives its name from Cape Mendocino, which lies northward of its northern boundary. Cape Mendocino was given its name by the 16th century Spanish navigator, Juan Rodriguez Cabrillo. Cabrillo discovered the cape in 1542 while on a voyage of discovery along the Pacific Coast and named it in honor of Don Antonio de Mendoza, the first Viceroy of New Spain (Mexico), and the patron of the voyageur. Although Spanish explorers traveled by sea along the Mendocino coast beginning as early as the 1500s, regular contact with local tribes did not occur until after about 1812, when Russian fur-trapping parties established the trading outpost at Fort Ross in Sonoma County. The 1822 shipwreck of a Russian vessel along the southern Mendocino coast near Point Arena likely resulted in the first contact between local native groups and Euro-American colonists. In 1833, John Work of the Hudson Bay Company led a party across the Noyo River in search of pelts. Work's journal provides the first recorded interaction between local Native peoples and Euro-American settlers on the Mendocino Coast (cf. Lewis and Phillips 1923).

Spanish and Mexican Periods

Neither Spanish nor Mexicans had significant influence in Mendocino County beyond establishing two Mexican land grants in central Mendocino County. These grants, Rancho Sanel in Hopland (1844) and Rancho Yokaya (1845), included the majority of the Ukiah Valley (Beck and Haase 1974:26-27). In an effort to gain control of the coast, the Mexican government issued two large land grants that encompassed the entire coast from Big River south to the Gualala River. Rafael Garcia petitioned in 1844 for lands from Elk to the Gualala River and inland two leagues. William Richardson claimed lands to the north of the Garcia River as far as Big River. In 1845, the Mexican-American war broke out as a result of US annexation of Texas. At the conclusion of the war in 1848,

Mexico ceded its northern territories to the United States, from Texas to California. Neither grant was subsequently recognized by the U.S. government during trials after the passage of the Land Act of 1851 (Sullenberger 1980).

American Settlement and Indian Reservations

Permanent non-indigenous settlement along the Mendocino Coast did not take place until the mid-1840s. Problems quickly developed between settlers and local Indians involving a struggle over territory and competition over food between livestock and people. In 1855, two Indian reservations were established in Mendocino County for the purpose of “collecting, removing and subsisting” local tribes (Winn 1986). The Mendocino Reservation was established on the coast near Fort Bragg, north of the mouth of the Noyo River. Indians were rounded up and brought to the reservation, where they were mandated to stay, inadequately rationed and often physically abused (Winn 1986:22-24). In 1857 Lt. Horatio Gibson established the military encampment of Fort Bragg to manage the Mendocino Reservation (Palmer 1880:423-428). It was named in honor of Lt. Col. Braxton Bragg, a commander during the Mexican War and Confederate general of note (Gudde 2010:135). By the summer 1857, the reservation included a population of 3,450 Indians, 350 acres of planted land, and 24 houses (Winn 1986:17). An additional 1,500 Indians were absent by permission subject to good behavior enforced by the U.S. Army. Thomas J. Hendley, Superintendent of Indian Affairs in California, was accused of fraud and stealing reservation funds, and was removed from office in June 1859 but never charged for his alleged crimes (Winn 1986:21-22). The Mendocino Reservation was deemed a failure and closed in 1867 (Winn 1986).

Albion

In 1852, William Richardson commissioned three men to build a mill at the end of the Albion River. The town of Albion and the Albion River both derive their name from Richardson’s Albion Rancho. Richardson named the rancho after Sir Francis Drake, who had referred to California as “New Albion.” Alexander MacPherson and Henry Wetherbee, lumber magnates in Fort Bragg, purchased Richardson’s mill in 1854 and added a steam-powered component, increasing its output to 4000 feet per day. The addition of a circular saw and planer the following year increased its output to 10,000 feet per day. Under the auspices of MacPherson, the town of Albion slowly grew around the mill, surviving its destruction in fires in 1867 and 1879. After each fire, the output of the mill increased exponentially with the addition of new equipment (Borden 1961:3). By 1880, a small hotel and some homes had been constructed, but was considered relatively small compared to neighboring towns Mendocino, Little River, and Point Arena (Palmer 1880:408). Activities south of the Albion River primarily consisted of agriculture. A small creamery operated at Little Salmon Creek by 1914, and much of the cleared forest land in the area was converted for fruit production (Carpenter and Millberry 1914:56).

In 1891, Miles Standish, Henry B. Hickey, George C. Wilcox, F. W. Crosby and W. E. Reed formed the Albion Lumber Company, which purchased all of the land and equipment from Henry Wetherbee (Borden 1961:5). The company’s lumber railroad, formerly a horse drawn railroad constructed in 1881, evolved into a steam-powered railroad by 1885. It was eventually purchased by the Northwestern Pacific Railroad in 1907, which was then purchased by Southern Pacific. The Albion Lumber Company survived until 1927, when the Southern Pacific downgraded the priority of the coastal lumber railroads during an ebb in the lumber business. The Albion mill cut its final log on May 19, 1928. The railroad continued to service industrial needs for the Southern Pacific until 1930. A brief revival in 1931 failed, and the economy of the coast shifted towards tourism shortly thereafter (Borden 1961:13).

VI. SOURCES CONSULTED

Records Search

On September 22, 2021, Dean Martorana, Archaeologist with ALTA, conducted a records search (File Number 21-0478) at the Northwest Information Center (NWIC) located on the campus of Sonoma State University. The NWIC, an affiliate of the State of California Office of Historic Preservation is the official state repository of archaeological and historical records and reports for an 18-county area that includes Mendocino County. The records search included a review of all study reports on file within a one-half mile radius of the Project Area. A search of cultural resources included a one-half mile radius. Sources consulted include archaeological site and survey base maps, survey reports, site records, and historic General Land Office (GLO) maps.

Included in the review were:

- *California Inventory of Historical Resources* (California Department of Parks and Recreation 1976)
- *California Historical Landmarks* for Mendocino County (CA-OHP 1990)
- *California Points of Historical Interest* (CA-OHP 1992)
- *Historic Properties Directory* (CA-OHP April 2012), including the National Register of Historic Places, California Historical Landmarks, and California Points of Historical Interest

Review of historic registers and inventories indicate that no historical landmarks or points of interest are present in the Project Area. No National Register listed or eligible properties are located within the 0.5-mile visual area of the Project Area.

Review of archaeological site and survey maps revealed that eight cultural resource studies have been previously performed within a one-quarter mile radius of the current Project Area (Table 1). Approximately 30% of the 0.25-mile records search radius has been previously surveyed. One study has been conducted within the Project Area.

Table 1. Summary of Previous Cultural Resources Studies within Search Radius

Report No.	Authors	Year	Description
S-016024	Michael Howell and Timothy Motl	1994	Archaeological and Historical Resources Survey and Impact Assessment, Calvert 1994, THP #1-94-067 MEN (California Department of Forestry)
S-020932	Randy Jacobszoon	1998	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California, Hall THP, 1-98-108 MEN (California Department of Forestry)
S-024630	Randy Jacobszoon	2000	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California, Paulson THP, THP# 1-00-290 Men (California Department of Forestry)
S-032012	Michael Howell and Timothy C. Motl	2005	An Archaeological Survey Report for the Calvert Road C NTMP, Mendocino County, California, THP # 1-05NTMP-011 MEN
S-037720	Thad Van Bueren	2008	Archaeological Survey of the Albion Fire Station Property at 32600 Albion Ridge Road near Albion, California, Assessor's Parcel 123-210-37
S-043785	Zachary M. Jones	2013	An Archaeological Survey Report for the C Road Timber Harvesting Plan, Mendocino County, California
S-045615	Zachary M. Jones	2014	Section VI, An Archaeological Survey Report for the Hall Timber Harvesting Plan, Mendocino County, California
S-047758	Lee Susan	2016	THP Section 6, Archaeological Survey Report Sutton THP 2016, Mendocino County, California

S-24630 was a cultural resources survey conducted for the Paulson THP (Jacobszoon 2000). This study covered only the forested areas of the property, located in the northern and southern third of the parcel. This survey did not identify cultural resources within the Project Area.

No cultural resources have been previously identified within a 0.25-mile radius of the Project Area.

Historic Map Review

Review of historic maps of the area was completed to better understand the timing of development within the Project Area and recognize historic features. The following historic maps were reviewed as part of this investigation.

Bureau of Land Management (BLM)

- 1866 Survey plat of T16N R17W. General Land Office Records, Bureau of Land Management, Washington, D.C. 1:31,680 scale.
- 1867 Survey plat of T16N R17W. General Land Office Records, Bureau of Land Management, Washington, D.C. 1:31,680 scale.

Ellis, Clement B.

- 1853 *Plan of Albion Ranch, Property of Capt. Wm. A. Richardson*. Land Case Map F-868. Bancroft Library, University of California, Berkeley. 1:57,600 scale.

Hickey and Standish

- 1896 *Blueprint Map of South Mendocino, CA*. Call no. G4363.M4G46 1896 .B5, Library of Congress Geography and Map Division, Washington, D.C.

Metsker, Charles F.

- 1954 *Metsker's Atlas of Mendocino County, California*. Metsker Map Company, Portland, Oregon. 1:31,680 scale.

Rice and Baltzell

- 1890 *Official Map of Mendocino County, California*. Rice and Baltzell, Ukiah, California.

United States Coast and Geodetic Survey (USCGS)

- 1909 *Navarro and Albion*. Historical Map & Chart Collection, Office of Coast Survey, National Oceanic and Atmospheric Administration, Washington, DC. 1:10,000 scale.

United States Geological Survey (USGS)

- 1944 Saddle Point Topographic Map. 1:62,500 scale.
- 1954 Navarro Topographic Map. 1:62,500 scale.
- 1957 Navarro Topographic Map. 1:62,500 scale.
- 1962 Elk Topographic Map. 1:24,000 scale.
- 1967a Elk Topographic Map. 1:24,000 scale.
- 1967b Elk Topographic Map. 1:24,000 scale.
- 2012 Elk Topographic Map. 1:24,000 scale.
- 2015 Elk Topographic Map. 1:24,000 scale.
- 2018 Elk Topographic Map. 1:24,000 scale.

The earliest map showing the Project Area in detail is a *diseño* depicting the purported holdings of Captain William Richardson on the Mendocino Coast. This map identifies the Albion River and delineates sections later designated by the GLO cadastral survey. No improvements are depicted within the Project Area (Ellis 1853). By 1866, when the first cadastral survey plat of the area was drawn, the community of Albion begins to appear along the riverside, near the mouth of the river. However, no survey occurred east of section 28, including the Project Area (BLM 1866). By the next year, the survey includes section 27. An unnamed road in the course of Albion Ridge Road is depicted running west to east along the spine of Albion Ridge Road. This map depicts a single house in the section, and a local road leading from Albion Ridge Road to “M. Lawrence’s house.” No improvements are specifically depicted within the Project Area.

The Hickey and Standish Logging Company map of the area and the 1890 county wall atlas similarly depict the roadways leading up Albion Ridge. These maps call out the developing community of Albion north of the river, as well as Whitesboro, south of the river. However, no specific improvements beyond the roads are visible upslope (Hickey and Standish 1896).

A large gap in maps in the area obscures the ability to track landscape change between 1890 and 1943. The earliest USGS quads of the area depict significant changes in the area. Albion Ridge Road is identified as a formally named, paved arterial road leading to modest residential development on the spine of the ridge. A single residence is identified in the northeastern corner of the Project Area. No other improvements are specifically depicted within the Project Area (USGS 1943). This depiction remains consistent to as late as 1967, after which USGS maps do not depict residential development (USGS 1943, 1954, 1975, 1962, 1967a, 1967b, 2012, 2015, 2018). In addition to these maps, the 1954 Metsker atlas of Mendocino County depicts the Project Area as part of a larger parcel owned by Etna Rowe (Metsker 1954:95).

Ethnographic Literature Review

Available ethnographic literature was reviewed to identify cultural resources in the project vicinity. The following sources were consulted.

Barrett, Samuel A.

- 1908 The Ethnogeography of the Pomo and Neighboring Indians. *University of California Publications in American Archaeology and Ethnology* 6(1):1-332.

Kniffen, Fred B.

- 1939 Pomo Geography. *University of California Publications in American Archaeology and Ethnology* 36(6):353-400.

Kroeber, Alfred L.

- 1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin* 78. Washington, D.C.

McLendon, Sally and Robert L. Oswalt

- 1978 Pomo: Introduction. In *Handbook of the Indians of North America, Volume 8 California*. Smithsonian Institution, Washington, D.C.

Stewart, Omer C.

1943 Notes on Pomo Ethnogeography. *University of California Publications in American Archaeology and Ethnology* 40(2):29-62.

As previously described, the Project Area lies within the traditional territory of the *mitom poma* band of the Northern Pomo. Ethnographers have identified one site within a 0.5-mile radius of the Project Area. Barrett (1908:135) identifies the nearest site, *kabátōda*, as “on the top of the high, narrow ridge separating Albion River from Salmon creek [sic], and indefinitely located at a distance of one or two miles from the ocean.” This places the site within 0.2 miles of the Project Area, but no specific data identifies the exact location of the site. No ethnographically-described sites are known to exist specifically within the Project Area.

Native American Outreach

Assembly Bill 52, which went into effect in July 2015, is an amendment to CEQA Section 5097.94 of the Public Resources Code. AB52 established a proactive communication process with all California Native American tribes identified by the Native American Heritage Commission (NAHC) with cultural ties to an area. This process is implemented on projects that file a notice of preparation for an EIR or notice of intent to adopt a negative or mitigated negative declaration. Under AB52, the Lead Agency is required to consult with tribes at tribal request. The bill further created a new class of resources under CEQA known as Tribal Cultural Resources (TCRs).

ALTA archaeologist Dean Martorana contacted the NAHC on October 1, 2021 to request a review of the Sacred Lands file for information on Native American cultural resources in the study area and to request a list of Native American contacts in this area. In the NAHC response dated November 5, 2021, Katy Sanchez (Associate Environmental Planner) indicated that a search of the Sacred Lands File returned a negative result. The NAHC forwarded a list of suggested tribal entities to contact for their input or concerns regarding the project.

On November 9, 2021, an outreach letter was sent to the Chairperson of each tribal group associated with the Study Area. To date, no response(s) have been received from the native community regarding this project. Attachment B provides copies of the Native American correspondences.

VII. FIELD METHODS

ALTA staff archaeologist Nicholas Radtkey conducted a field survey of the Project Area on November 5, 2021. Project design drawing, project maps and aerial imagery were used to correctly identify the Project Area. Ground surface visibility was poor, about 10%, throughout the survey area due to dense grasses, undergrowth, and leaf litter. The area of proposed development was surveyed, totaling 4.9 acres of land (Figure 5). The Project Area was surveyed using intensive survey coverage with transects no greater than 10-meter intervals. A shovel was used to probe the ground at 10-meter intervals during pedestrian survey. A total of 127 shovel pits were conducted at regular intervals throughout the Project Area. Digital photos were taken of the Project Area and surroundings (Attachment C).

VIII. STUDY FINDINGS AND MANAGEMENT RECOMMENDATIONS

Study Findings

As previously discussed in section IV, this cultural resources inventory was conducted to address the responsibilities of CEQA, as codified in Public Resource Code sections 5097, and its implementing guidelines 21082 and 21083.2. No cultural resources were identified within the Project Area as a result of the records search, literature review, Native American consultation, or archaeological field survey. The project will not cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code section 21074 as either site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe. The project will not cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5.

Noted Finds

A concrete basin, an antique cultivator, and four apple trees were identified within the Project Area. However, these finds lack a clear association, and thus do not constitute cultural resources under CEQA.

Management Recommendations

We make the following recommendations to ensure that cultural resources are not adversely affected by the proposed project. The project as presently designed is not expected to have an adverse effect on cultural resources. The project should be allowed to proceed given the following recommendations.

Unanticipated Discovery of Cultural Resources

If previously unidentified cultural resources are encountered during project implementation, avoid altering the materials and their stratigraphic context. A qualified professional archaeologist should be contacted to evaluate the situation. Project personnel should not collect cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

Encountering Native American Remains

Although unlikely, if human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and further recommendations regarding treatment of the remains is provided.

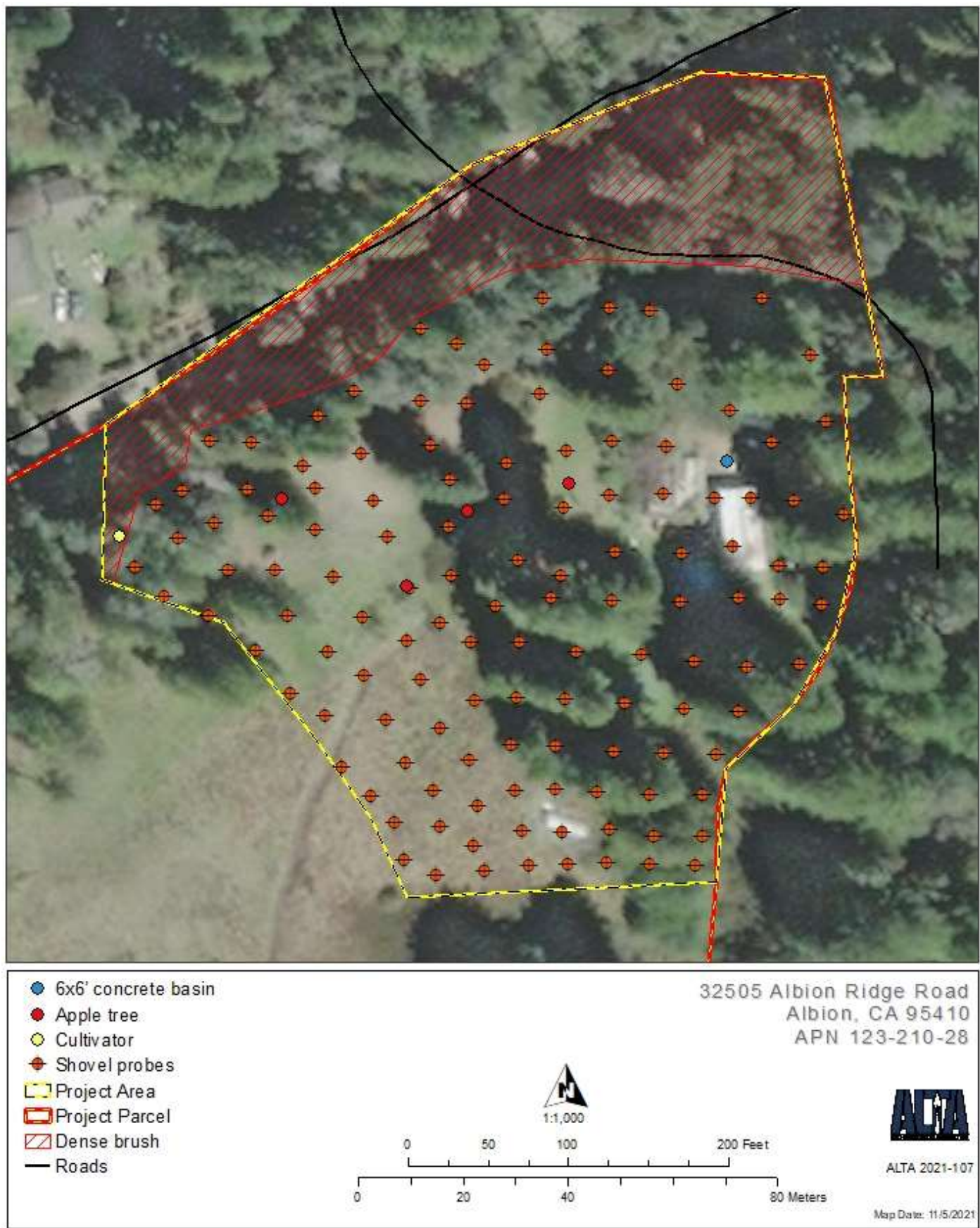


Figure 5. Survey Coverage

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1967b Elk Topographic Map. 1:24,000 scale.
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Attachment A – Records Search Results

**32505 ALBION RIDGE ROAD
ALBION, MENDOCINO COUNTY, CALIFORNIA**

Confidential Information

This report contains confidential information. The distribution of material contained in this report is restricted to a need to know basis. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the location of cultural resources should be kept confidential. The provision protecting the confidentiality of archaeological resources is in California Government Code 6245 and 6245.10, and the National Historic Preservation Act of 1996, Section 304.



NWIC Billing Worksheet

IC File Number: 21-0478

Client Name: Dean Martorana (Alta)

Phone: (916) 205-6087

Affiliation: Alta Archaeological Consulting

Email: dean@altaac.com

Proj Name/Number: ALTA2021-98, -101, -103, -104, -107

Date Request Rec'd: 9/22/2021

Date of Response: 9/23/2021

Check In: 9:11:00 AM

Check Out: 11:15:00 AM

Check In:

Check Out:

In-person Time:

Hour(s): 2.07

\$ 250.00

Staff Time:

Hour(s):

\$ 0.00

Shape Files:

Number:

\$ 0.00

Custom Map Features:

Number:

\$ 0.00

Digital Database Record:

Number of Row(s):

60

\$ 15.00

Quads:

Number:

\$ 0.00

Address-mapped Flat Fee:

\$ 0.00

Hard Copy (Xerox/Computer) Pages:

Page(s):

\$ 0.00

Labor Charge:

Hour(s): 1

\$ 40.00

PDF Pages:

Page(s): 518

\$ 77.70

PDF Flat Fee:

\$ 0.00

Other: CHRIS Data Request

\$ 0.00

Subtotal

\$ 382.70

Rapid response surcharge of 50% of total cost:

\$ 0.00

Total:

\$ 382.70

Information Center Staff:

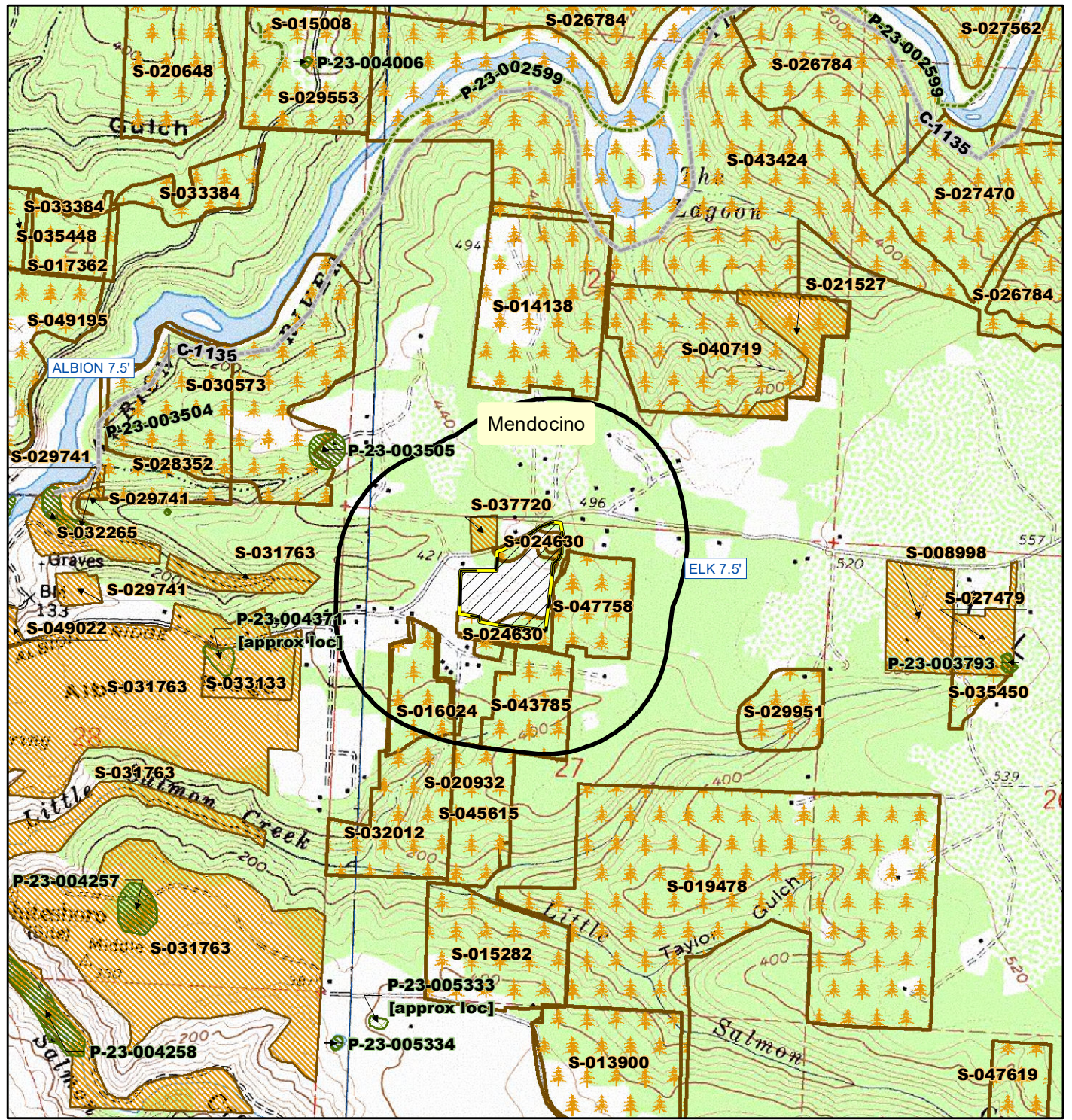
Dana Marty

Sonoma State University Customer ID:

Sonoma State University Invoice No.:

CHRIS Access and Use Agreement No.:

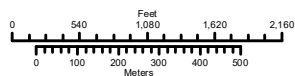
****This is not an invoice. Sonoma State University will send separate invoice.****



Northwest Information Center

File #11-XXXX 29 October 2010 J. Dirt

May depict confidential cultural resource locations.
Do not distribute.



- | | | |
|-------------------------|-------------------------------|--|
| Project Parcel | Informal resources (points) | Reports (points) |
| Quarter Mile Buffer | Informal resources (lines) | Reports (lines) |
| Quarter Mile Buffer | Informal resources (polygons) | Reports (polygons) |
| Project Parcel | Restricted resources | Reports approx loc |
| quarter_mile_buffer_rev | Resources (points) | Reports (CFMOCU) |
| Project Area | Resources (lines) | Quad outlines |
| Quarter Mile Buffer | Resources (polygons) | County outlines |
| Project Area | Resources approx loc | Yolo / Solano county border adjustment |
| Quarter Mile Buffer | Resource districts | |
| Project Parcel/Area | Restricted reports | |



Attachment B – Native American Communication

**32505 ALBION RIDGE ROAD
ALBION, MENDOCINO COUNTY, CALIFORNIA**

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Local Government Tribal Consultation List Request
NATIVE AMERICAN HERITAGE COMMISSION

915 Capital Mall, RM 364
Sacramento, CA 95814
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

DATE: 10/1/2021

Type of List Requested

☒ **CEQA Tribal Consultation List (AB 52) – *Per Public Resource Code §21080.3, subs. (b), (d), (e) and 21080.3.2***

☐ **General Plan (SB 18) – *Per Government Code §65352.3.***

Local Action Type:

___ General Plan ___ General Plan Element ___ General Plan Amendment
___ Specific Plan ___ Specific Plan Amendment ___ Pre-planning Outreach

Required Information

Project Title: ALTA2021_107 32505 Albion Ridge Road Mendocino County
Local Government/Lead Agency: Mendocino County
Contact Person: Dean Martorana (Alta Archaeological Consulting)
Street Address: 2681 Cleveland Ave.
City: Santa Rosa Zip: 95403
Phone: (707) 544-4206 Fax: (707) 546-2135
Email: dean@altaac.com

Specific Area Subject to Proposed Action

County: Mendocino

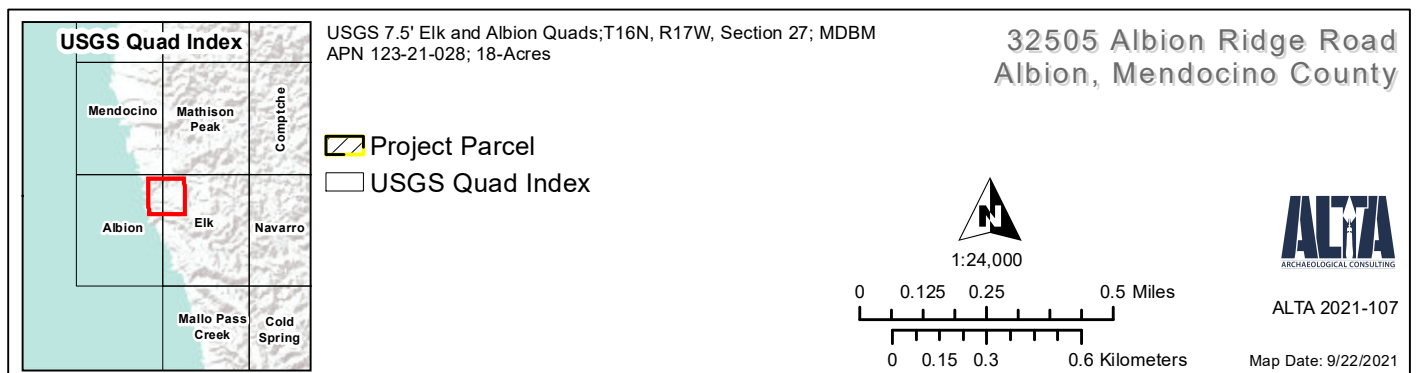
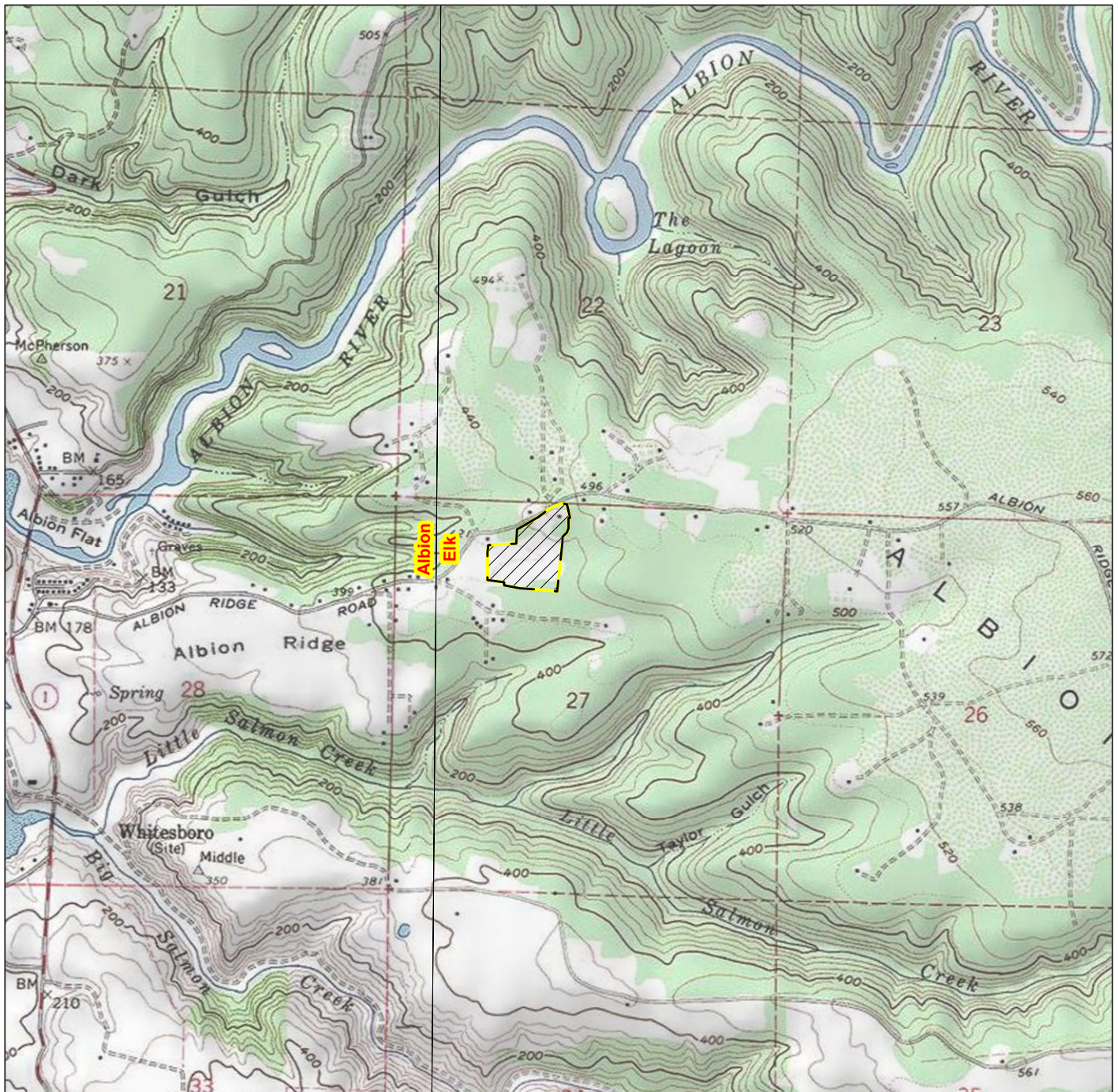
City/Community: Albion

Project Description: The project proposes to construct a single-family residence, a garage, and an accessory dwelling unit within a 5-acre portion of a 20-acre parcel at 32505 Albion Ridge Road in Albion, CA.

Additional Request

☒ ***Sacred Lands File Search – Required Information***

USGS 7.5' Elk Quadrangle; Township 16 North, Range 17 West, Section 27; MDBM
Location map attached.



**NATIVE AMERICAN HERITAGE COMMISSION**

November 05, 2021

Dean Martorana
ALTACHAIRPERSON
Laura Miranda
LuiseñoVICE CHAIRPERSON
Reginald Pagaling
ChumashPARLIAMENTARIAN
Russell Attebery
KarukCOMMISSIONER
William Mungary
Paiute/White Mountain
ApacheCOMMISSIONER
Isaac Bojorquez
Ohlone-CostanoanCOMMISSIONER
Sara Dutschke
MiwokCOMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki,
NomlakiCOMMISSIONER
Wayne Nelson
LuiseñoCOMMISSIONER
Stanley Rodriguez
KumeyaayEXECUTIVE SECRETARY
Christina Snider
Pomo**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov**Submitted via Electronic Mail**
Via Email to: dean@altaac.com**Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, ALTA2021_107 2505 Albion Ridge Road, Mendocino County**

Dear Mr. Martorana:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Katy.Sanchez@nahc.ca.gov

Sincerely,



Katy Sanchez
Associate Environmental Planner

Attachment

**Native American Heritage Commission
Native American Contacts List
November 3, 2021**

Bear River Band of the Rohnerville Rancheria Josefina Cortez, Chairwoman 266 Keisner Road Loleta ,CA 95551 (707) 733-1900 (707) 733-1723 Fax	Wiyot Mattole	Hopland Band of Pomo Indians Sonny J. Elliott, Chairperson 3000 Shanel Road Hopland ,CA 95449 sjelliott@hoplandtribe.com (707) 472-2100 (707) 744-1506	Shokowa Sokow Shanel Pomo
Cahto Tribe Mary J. Norris, Chairperson P.O. Box 1239 Laytonville ,CA 95454 (707) 984-6197 (707) 984-6201 Fax	Cahto Kato Pomo	Kashia Band of Pomo Indians of the Stewarts Point Rancheria Dino Franklin Jr., Chairperson 1420 Guerneville Rd. Ste 1 Santa Rosa ,CA 95403 dino@stewartspoint.org (707) 591-0580 Office (707) 591-0583 Fax	Pomo
Coyote Valley Band of Pomo Indians Michael Hunter, Chairperson P.O. Box 39/ 7901 Hwy 10, North Redwood Valley ,CA 95470 (707) 485-8723 (707) 485-1247 Fax	Pomo	Manchester Band of Pomo Indians Jaime Cobarrubia, Chairperson P.O. Box 623 Point Arena ,CA 95468 (707) 882-2788 (707) 882-3417 Fax	Pomo
Guidiville Indian Rancheria Donald Duncan, Chairperson P.O. Box 339 Talmage ,CA 95481 admin@guidiville.net (707) 462-3682 (707) 462-9183 Fax	Pomo	Noyo River Indian Community Chairperson P.O. Box 91 Fort Bragg ,CA 95437	North Coastal Pomo Coast Yuki
Habematolel Pomo of Upper Lake Sherry Treppa, Chairperson P.O. Box 516 Upper Lake ,CA 95485 streppa@hpultribe-nsn.gov (707) 900-6901 (707) 275-0757	Pomo	Pinoleville Pomo Nation Leona Williams, Chairperson 500 B Pinoleville Drive Ukiah ,CA 95482 (707) 463-1454 (707) 463-6601 Fax	Pomo

**Native American Heritage Commission
Native American Contacts List
November 3, 2021**

Potter Valley Tribe Salvador Rosales, Chairperson 2251 South State Street Ukiah ,CA 95482 pottervalleytribe@pottervalleytribe.com (707) 462-1213 (707) 462-1240 - Fax	Pomo	Yokayo Tribe Chairperson P.O. Box 362 Talmadge ,CA 95481	Pomo
Redwood Valley or Little River Band of Pomo Indians Debra Ramirez, Chairperson 3250 Road I Redwood Valley ,CA 95470 rvrsecretary@comcast.net (707) 485-0361 (707) 485-5726 Fax			
Robinson Rancheria Band of Pomo Indians Beniakem Cromwell, Chairperson P.O. Box 4015 Nice ,CA 95464 bcromwell@rrcbc-nsn.gov (707) 275-0527 (707) 275-0235 Fax			
Round Valley Reservation/ Covelo Indian Community James Russ, President 77826 Covelo Road Covelo ,CA 95428 tribalcouncil@rvit.org (707) 983-6126 (707) 983-6128 Fax			
Sherwood Valley Band of Pomo Indians Michael Knight, Chairperson 190 Sherwood Hill Drive Willits ,CA 95490 svradministrator@sbcglobal.net (707) 459-9690 (707) 459-6936 Fax			



Alta Archaeological Consulting, LLC
15 Third Street
Santa Rosa, CA 95401
office (707) 544-4206
fax (707) 546-2135
www.altaac.com

November 9, 2021

Cahto Tribe
Mary J. Norris, Chairperson
P.O. Box 1239
Laytonville, CA 95454

Re: ALTA2020-107 Paulson Albion Project

Dear Chairperson Norris,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

The Native American Heritage Commission provided your name and contact information regarding this project. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

A handwritten signature in blue ink, appearing to read "N. Radtkey", with a stylized flourish at the end.

Nicholas Radtkey, B.A.
Staff Archaeologist
2681 Cleveland Avenue
Santa Rosa, CA 95403
nick@altaac.com
(707) 291-4645 mobile
(707) 544-4206 office
(707) 546-2135 fax



Alta Archaeological Consulting, LLC
15 Third Street
Santa Rosa, CA 95401
office (707) 544-4206
fax (707) 546-2135
www.altaac.com

November 9, 2021

Hopland Band of Pomo Indians
Terri McCartney, EPA Director
3000 Shanel Road
Hopland, CA 95449

Re: ALTA2020-107 Paulson Albion Project

Dear Ms. McCartney,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

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Sincerely,

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Nicholas Radtkey, B.A.
Staff Archaeologist
2681 Cleveland Avenue
Santa Rosa, CA 95403
nick@altaac.com
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(707) 544-4206 office
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www.altaac.com

November 9, 2021

Coyote Valley Band of Pomo Indians
Michael Hunter, Chairperson
P.O. Box 39
Redwood Valley, CA 95470

Re: ALTA2020-107 Paulson Albion Project

Dear Chairperson Hunter,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

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November 9, 2021

Manchester Band of Pomo Indians
Jaime Cobarrubia, Chairperson
P.O. Box 63
Point Arena, CA 95468

Re: ALTA2020-107 Paulson Albion Project

Dear Chairperson Cobarrubia,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

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November 9, 2021

Guidiville Indian Rancheria
Donald Duncan, Chairperson
P.O. Box 339
Talmage, CA 95481

Re: ALTA2020-107 Paulson Albion Project

Dear Chairperson Duncan,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

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Sincerely,

A handwritten signature in blue ink, appearing to read "N. Radtkey", is written over a light blue horizontal line.

Nicholas Radtkey, B.A.
Staff Archaeologist
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November 9, 2021

Noyo River Indian Community
P.O. Box 91
Fort Bragg, CA 95437

Re: ALTA2020-107 Paulson Albion Project

To Whom It May Concern,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

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Sincerely,

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Staff Archaeologist
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fax (707) 546-2135
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November 9, 2021

Habematotel Pomo of Upper Lake
Sherry Treppa, Chairperson
P.O. Box 516
Upper Lake, CA 95485

Re: ALTA2020-107 Paulson Albion Project

Dear Chairperson Treppa,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

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Santa Rosa, CA 95401
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November 9, 2021

Pinoleville Pomo Nation
Angela James, THPO
500B Pinoleville Drive
Ukiah, CA 95482

Re: ALTA2020-107 Paulson Albion Project

Dear Ms. James,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

The Native American Heritage Commission provided your name and contact information regarding this project. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

A handwritten signature in blue ink, appearing to read "N. Radtkey", with a stylized flourish at the end.

Nicholas Radtkey, B.A.
Staff Archaeologist
2681 Cleveland Avenue
Santa Rosa, CA 95403
nick@altaac.com
(707) 291-4645 mobile
(707) 544-4206 office
(707) 546-2135 fax



Alta Archaeological Consulting, LLC
15 Third Street
Santa Rosa, CA 95401
office (707) 544-4206
fax (707) 546-2135
www.altaac.com

November 9, 2021

Potter Valley Tribe
Salvador Rosales, Chairperson
2251 South State Street
Ukiah, CA 95482

Re: ALTA2020-107 Paulson Albion Project

Dear Chairperson Rosales,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

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November 9, 2021

Yokayo Tribe
P.O. Box 362
Talmage, CA 95481

Re: ALTA2020-107 Paulson Albion Project

To Whom It May Concern,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

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November 9, 2021

Redwood Valley or Little River Band of Pomo Indians
Debra Ramirez, Chairperson
3250 Road I
Redwood Valley, CA 95470

Re: ALTA2020-107 Paulson Albion Project

Dear Chairperson Ramirez,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

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Sincerely,

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November 9, 2021

Robinson Rancheria Band of Pomo Indians
Beniakem Cromwell, Chairperson
P.O. Box 4015
Nice, CA 95454

Re: ALTA2020-107 Paulson Albion Project

Dear Chairperson Cromwell,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

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Sincerely,

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November 9, 2021

Round Valley Reservation
Patricia Rabano, THPO
77826 Covelo Road
Covelo, CA 95428

Re: ALTA2020-107 Paulson Albion Project

Dear Ms. Rabano,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

The Native American Heritage Commission provided your name and contact information regarding this project. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

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Nicholas Radtkey, B.A.
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November 9, 2021

Sherwood Valley Band of Pomo Indians
Tina Sutherland, THPO
190 Sherwood Hill Drive
Willits, CA 95490

Re: ALTA2020-107 Paulson Albion Project

Dear Ms. Sutherland,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 32505 Albion Ridge Road. The project proponent is in the permitting process for the construction of a single-family residence and associated infrastructure.

The project is located on one parcel (APN 123-210-28) totaling approximately 20 acres. It is situated on the USGS 7.5' Elk Quadrangle in Township 16 North, Range 17 West, section 27 of the Mount Diablo Base and Meridian. The physical address of the project is 32505 Albion Ridge Road, Albion, California.

The Native American Heritage Commission provided your name and contact information regarding this project. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

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Attachment C – Photo Sheet

**32505 ALBION RIDGE ROAD
ALBION, MENDOCINO COUNTY, CALIFORNIA**

Confidential Information

This report contains confidential information. The distribution of material contained in this report is restricted to a need to know basis. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the location of cultural resources should be kept confidential. The provision protecting the confidentiality of archaeological resources is in California Government Code 6245 and 6245.10, and the National Historic Preservation Act of 1996, Section 304.

PHOTO SHEET

32505 ALBION RIDGE ROAD, ALBION, CA



TH000744, view southwest, 11/3/2021, Project Area overview.



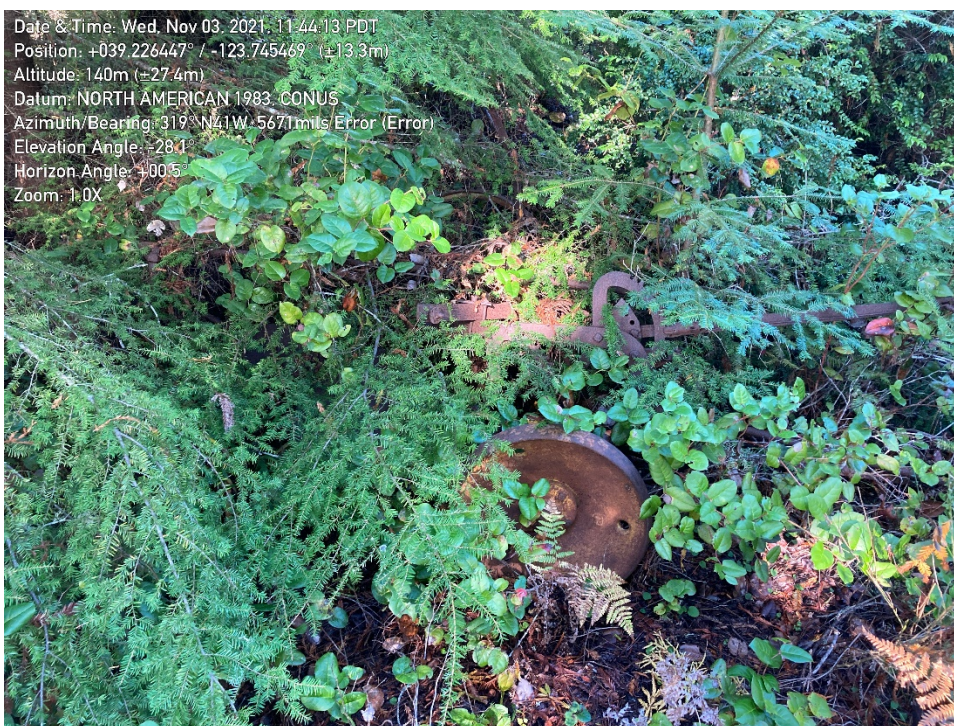
TH000746, view northwest, 11/3/2021, westernmost apple tree within the Project Area.

PHOTO SHEET

32505 ALBION RIDGE ROAD, ALBION, CA



TH000753, view south,11/3/2021, Concrete basin.



Th000748, view northwest,11/3/2021, antique cultivator.