



COUNTY OF MENDOCINO
DEPARTMENT OF PLANNING AND BUILDING SERVICES

860 NORTH BUSH STREET • UKIAH • CALIFORNIA • 95482
120 WEST FIR STREET • FT. BRAGG • CALIFORNIA • 95437

BRENT SCHULTZ, DIRECTOR
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pbs@mendocinocounty.org
www.mendocinocounty.org/pbs

October 9, 2019

Planning – Ukiah
Department of Transportation
Environmental Health - Fort Bragg
Building Inspection - Fort Bragg
Assessor
Archaeological Commission

Sonoma State University
Native Plant Society
CalFire - Prevention
Department of Fish and Wildlife
Coastal Commission
Mendocino City Community Services

Mendocino Fire District
Mendocino School District
Cloverdale Rancheria
Redwood Valley Rancheria
Sherwood Valley Band of Pomo Indians

CASE#: CDP_2018-0012

DATE FILED: 4/23/2018

OWNER: NOAH & ZOE SHEPPARD

APPLICANT/AGENT: SHEPPARD NOAH

REQUEST: Standard Coastal Development Permit, after the fact, to construct a single-family residence, associated and ancillary structures less than 100 ft. from sensitive habitat areas.

LOCATION: In the Town of Mendocino, on the south east side of Calypso Lane, 800± ft. north of its intersection with Little Lake Road (CR 408), located at 10760 Calypso Ln. (Private), Mendocino (APN: 119-090-46).

SUPERVISORIAL DISTRICT: 5

STAFF PLANNER: JULIANA CHERRY

RESPONSE DUE DATE: October 23, 2019

PROJECT INFORMATION CAN BE FOUND AT:

www.mendocinocounty.org

Select "Government" from the drop-down; then locate Planning and Building Services/Public Agency Referrals.

Mendocino County Planning & Building Services is soliciting your input, which will be used in staff analysis and forwarded to the appropriate public hearing. You are invited to comment on any aspect of the proposed project(s). Please convey any requirements or conditions your agency requires for project compliance to the project coordinator at the above address, or submit your comments by email to pbs@co.mendocino.ca.us. Please note the case number and name of the project coordinator with all correspondence to this department.

We have reviewed the above application and recommend the following (please check one):

- ☐ No comment at this time.
- ☐ Recommend conditional approval (attached).
- ☐ Applicant to submit additional information (attach items needed, or contact the applicant directly, copying Planning and Building Services in any correspondence you may have with the applicant)
- ☐ Recommend denial (Attach reasons for recommending denial).
- ☐ Recommend preparation of an Environmental Impact Report (attach reasons why an EIR should be required).
- ☐ Other comments (attach as necessary).

REVIEWED BY:

Signature _____ Department _____ Date _____

CASE: CDP_2018-0012

OWNER/APPLICANT: SHEPPARD NOAH & ZOE

AGENT: SHEPPARD NOAH

REQUEST: Standard Coastal Development Permit, after the fact, to construct a single-family residence, associated and ancillary structures less than 100 ft. from sensitive habitat areas.

LOCATION: In the Town of Mendocino, on the south east side of Calypso Lane, 800± ft. north of its intersection with Little Lake Road (CR 408), located at 10760 Calypso Ln. (Private), Mendocino (APN: 119-090-46).

APN/S: 119-090-46-00

PARCEL SIZE: 2.02 Acres

GENERAL PLAN: Coastal Element Chapter 4.13 Mendocino Town Plan, Rural Residential (RR2:U)
ZONING: Mendocino Town Zoning Code, Mendocino Rural Residential (MRR:2)

EXISTING USES: Vacant Land

DISTRICT: 5

RELATED CASES:

| | <u>ADJACENT GENERAL PLAN</u> | <u>ADJACENT ZONING</u> | <u>ADJACENT LOT SIZES</u> | <u>ADJACENT USES</u> |
|---------------|------------------------------|------------------------|---------------------------|----------------------|
| NORTH: | Rural Residential RR-2 | MRR-2 | 2.4 Acres | Vacant Land |
| EAST: | Rural Residential RR-2 | MRR-2 | 2.3 Acres | Residential |
| SOUTH: | Rural Residential RR-2 | MRR-2 | 2.0 Acres | Residential |
| WEST: | Rural Residential RR-2 | MRR-2 | 5.4 Acres | Residential |

REFERRAL AGENCIES

LOCAL

☒ Archaeological Commission
☒ Assessor's Office
☒ Building Division Fort Bragg
☒ Department of Transportation (DOT)
☒ Environmental Health (EH)
☒ Mendocino City Community Services District

☒ Mendocino Fire District
☒ Mendocino School District
☒ Planning Division Ukiah
☒ Sonoma State University
STATE
☒ CALFIRE (Land Use)
☒ California Coastal Commission

☒ California Dept. of Fish & Wildlife
☒ California Native Plant Society

TRIBAL

☒ Cloverdale Rancheria
☒ Redwood Valley Rancheria
☒ Sherwood Valley Band of Pomo Indians

ADDITIONAL INFORMATION ATTACHED:

A. Application forms including a Site Plan (page 6), Elevations (pp 9-10), Letter from MCCSD (p 12), and CalFire Preliminary Clearance (p13).

B. Botanical Surveys and Updates, including: 9-9-19 Spade Natural Resources Consulting (SNRC) cover letter (pp 1-2), Reduced Buffer Analysis (pp 3-5); 8-27-2019 SNRC Update Letter to Botanical Survey (p 6) and revised exhibit (p 11); 8-23-2019 SNRC Update Letter to Botanical Survey (pp 7-10, 12-49); and 8-2006 Botanical Survey for 10770 Calypso Ln by William Malasch (PP 50-63).

STAFF PLANNER: J CHERRY contact cherry@mendocinocounty.org **DATE:** 10/2/19

ENVIRONMENTAL DATA

1. MAC:

2. FIRE HAZARD SEVERITY ZONE:

High Fire Hazard. See exhibit Fire Hazard Zones & Responsibility Areas

3. FIRE RESPONSIBILITY AREA:

Mendocino Fire Protection District

4. FARMLAND CLASSIFICATION:

5. FLOOD ZONE CLASSIFICATION:

NO

6. COASTAL GROUNDWATER RESOURCE AREA:

Critical Water Resource Area. See exhibit Ground Water Resources

7. SOIL CLASSIFICATION:

Western Soils 199. See exhibit Local Soils

8. PYGMY VEGETATION OR PYGMY CAPABLE SOIL:

9. WILLIAMSON ACT CONTRACT:

NO

10. TIMBER PRODUCTION ZONE:

NO

11. WETLANDS CLASSIFICATION:

Freshwater emergent wetland or riverine. See exhibit Wetlands

12. EARTHQUAKE FAULT ZONE:

NO

13. AIRPORT LAND USE PLANNING AREA:

NO

14. SUPERFUND/BROWNFIELD/HAZMAT SITE:

NO

15. NATURAL DIVERSITY DATABASE:

YES

16. STATE FOREST/PARK/RECREATION AREA

ADJACENT:

NO

17. LANDSLIDE HAZARD:

18. WATER EFFICIENT LANDSCAPE REQUIRED:

19. WILD AND SCENIC RIVER:

20. SPECIFIC PLAN/SPECIAL PLAN AREA:

Coastal Element Ch. 4.13 Mendocino Town Plan

21. STATE CLEARINGHOUSE REQUIRED:

Coastal Commission, CalFire, CDFW

22. OAK WOODLAND AREA:

23. HARBOR DISTRICT:

FOR PROJECTS WITHIN THE COASTAL ZONE ONLY

24. LCP LAND USE CLASSIFICATION:

Rural Residential (RR-2)

25. LCP LAND CAPABILITIES & NATURAL HAZARDS:

Beach deposits and Timberlands. See exhibit LCP Land Capabilities & Natural Hazards

26. LCP HABITATS & RESOURCES:

Marine & Freshwater habitats. See exhibit LCP Habitats & Resources

27. COASTAL COMMISSION APPEALABLE AREA:

Portions of lot within Appeal Jurisdiction. See exhibit Appealable Areas.

28. CDP EXCLUSION ZONE:

NO

29. HIGHLY SCENIC AREA:

NO

30. BIOLOGICAL RESOURCES & NATURAL AREAS:

See Botanical Surveys and Reduced Buffer Analysis

31. BLUFFTOP GEOLOGY:

COUNTY OF MENDOCINO
DEPT OF PLANNING AND BUILDING SERVICES
120 WEST FIR STREET
FORT BRAGG, CA 95437
Telephone: 707-964-5379
FAX: 707-961-2427
pbs@co.mendocino.ca.us
www.co.mendocino.ca.us/planning



Case No(s) CDP-2018-0012
CDF No(s) _____
Date Filed 4-23-2018
Fee \$7,427.00
Receipt No. PRJ-020521
Received by @WALDMAN
Office Use Only

COASTAL ZONE APPLICATION FORM

APPLICANT

Name NOAH SHEPPARD
Mailing Address PO Box 112
City Albion State CA Zip Code 95410 Phone (707) 813-8138

PROPERTY OWNER

Name NOAH SHEPPARD
Mailing Address PO Box 112
City Albion State CA Zip Code 95410 Phone (707) 813-8138

AGENT

Name SAME
Mailing Address _____
City _____ State _____ Zip Code _____ Phone _____

PARCEL SIZE

2.02 ☐ Square feet
☒ Acres

STREET ADDRESS OF PROJECT

10700 Calypso Ln, Mendocino

ASSESSOR'S PARCEL NUMBER(S)

119-090-46-00

I certify that the information submitted with this application is true and accurate.

[Signature]
Signature of Applicant/Agent

4/11/18
Date

[Signature]
Signature of Owner

4/11/18
Date

RECEIVED

APR 23 2018

COASTAL ZONE - SITE AND PROJECT DESCRIPTION QUESTIONNAIRE

The purpose of this questionnaire is to relate information concerning your application to the Planning and Building Services Department and other agencies who will be reviewing your project proposal. Please remember that the clearer picture that you give us of your project and the site, the easier it will be to promptly process your application. Please answer all questions. Those questions which do not pertain to your project, please indicate "Not Applicable" or "N/A".

THE PROJECT

1. Describe your project and include secondary improvements such as wells, septic systems, grading, vegetation removal, roads, etc.

Build two bedroom two and a half bath 1850 s.f. Single Family Residence with a 525 s.f. Attached garage. Build Detached guesthouse 640 s.f. Move existing Road within existing easement. Develop existing well. Install approved sewage system. Install PG&E Power Drop.

2. If the project is residential, please complete the following:

| TYPE OF UNIT | NUMBER OF STRUCTURES | SQUARE FEET PER DWELLING UNIT |
|---|----------------------|-------------------------------|
| <input checked="" type="checkbox"/> Single Family | _____ | _____ |
| <input type="checkbox"/> Mobile Home | _____ | _____ |
| <input type="checkbox"/> Duplex | _____ | _____ |
| <input type="checkbox"/> Multifamily | _____ | _____ |

If Multifamily, number of dwelling units per building: _____

3. If the project is commercial, industrial, or institutional, complete the following:

Total square footage of structures: _____

Estimated employees per shift: _____

Estimated shifts per day: _____

Type of loading facilities proposed: _____

N/A

4. Will the proposed project be phased? ☐ Yes ☒ No
If Yes, explain your plans for phasing.

5. Are there existing structures on the property? ☒ Yes ☐ No
If yes, describe below and identify the use of each structure on the plot plan.

~~Proposed~~

6. Will any existing structures be demolished? ☐ Yes ☒ No
Will any existing structures be removed? ☐ Yes ☒ No

If yes to either question, describe the type of development to be demolished or removed, including the relocation site, if applicable.

N/A

7. Project Height. Maximum height of structure 25 feet.

8. Lot area (within property lines): 2.02 ☐ square feet ☒ acres

9. Lot Coverage:
- | | EXISTING | NEW PROPOSED | TOTAL |
|-------------------|----------------------|---------------------------|---------------------------|
| Building coverage | <u>0</u> square feet | <u>2,900</u> square feet | <u>2,900</u> square feet |
| Paved area | <u>0</u> square feet | <u>0</u> square feet | <u>0</u> square feet |
| Landscaped area | <u>0</u> square feet | <u>2,500</u> square feet | <u>2,500</u> square feet |
| Unimproved area | <u>0</u> square feet | <u>82,591</u> square feet | <u>82,591</u> square feet |
| GRAND TOTAL: | | | <u>87,991</u> square feet |
- (Should equal gross area of parcel)

10. Gross floor area: 2,900 square feet (including covered parking and accessory buildings).

11. Parking will be provided as follows:

| | Existing | Proposed | Total |
|------------------------------|------------|----------|-----------------------|
| Number of Spaces | <u>0</u> | <u>6</u> | <u>6</u> |
| Number of covered spaces | <u>2</u> | | Size <u>525 S.F.</u> |
| Number of uncovered spaces | <u>4</u> | | Size <u>1000 S.F.</u> |
| Number of standard spaces | <u>N/A</u> | | Size <u>N/A</u> |
| Number of handicapped spaces | | | Size <u>N/A</u> |

12. Utilities will be supplied to the site as follows:

A. Electricity

- ☒ Utility Company (service exists to the parcel).
☐ Utility Company (requires extension of services to site: _____ feet _____ miles)
☐ On Site generation, Specify: _____
☐ None

B. Gas

- ☒ Utility Company/Tank
☐ On Site generation, Specify: _____
☐ None

C. Telephone: ☒ Yes ☐ No

13. Will there be any exterior lighting? ☒ Yes ☐ No

If yes, describe below and identify the location of all exterior lighting on the plot plan and building plans.

Lighting is ON the Building Planes

14. What will be the method of sewage disposal?

- ☒ Community sewage system, specify supplier Approved Permit with MCS D
☐ Septic Tank
☐ Other, specify _____

15. What will be the domestic water source?

- ☐ Community water system, specify supplier _____
☒ Well
☐ Spring
☐ Other, specify _____

16. Is any grading or road construction planned? ☒ Yes ☐ No

If yes, grading and drainage plans may be required. Also, describe the terrain to be traversed (e.g., steep, moderate slope, flat, etc.).

The Site is Flat. Some grading to Prepare for Foundation. Move Road to the North side of Existing Easement.

For grading and road construction, complete the following:

- A. Amount of cut: 10 cubic yards
 B. Amount of fill: 0 cubic yards
 C. Maximum height of fill slope: N/A feet
 D. Maximum height of cut slope: N/A feet
 E. Amount of import or export: N/A cubic yards
 F. Location of borrow or disposal site: N/A

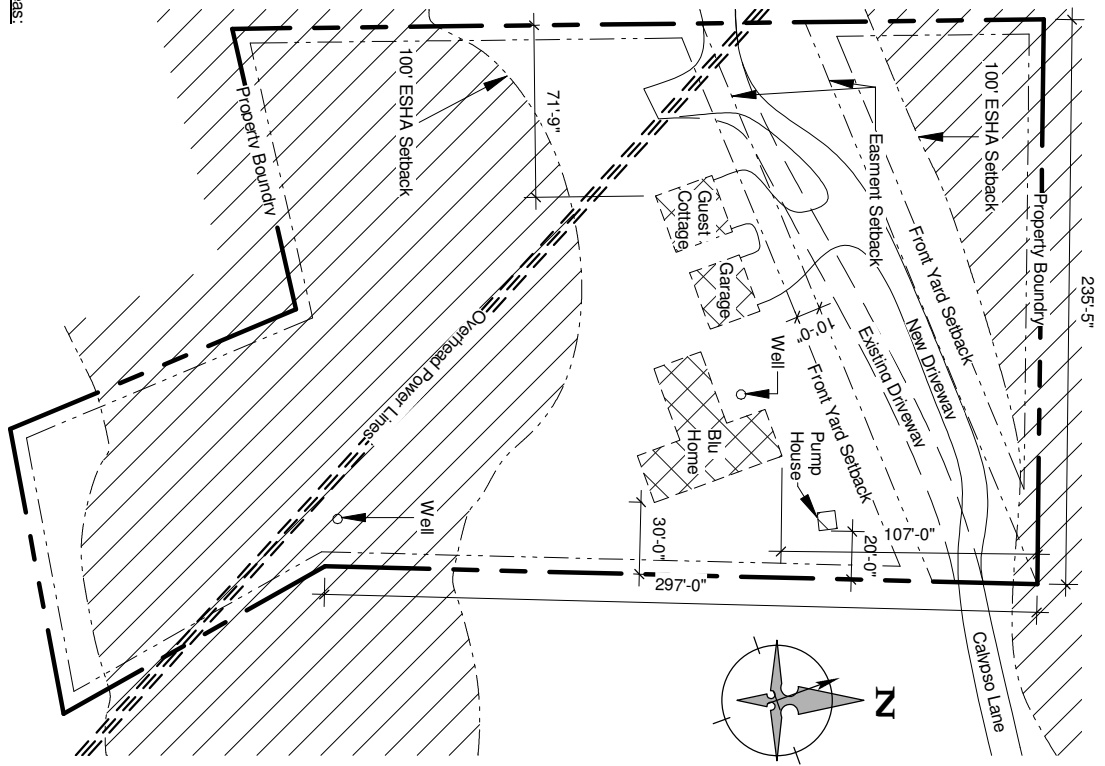
| | |
|-----|---|
| 17. | Will vegetation be removed on areas other than the building sites and roads? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, explain: |
| 18. | Does the project involve sand removal, mining or gravel extraction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, detailed extraction, reclamation and monitoring may be required. |
| 19. | Will the proposed development convert land currently or previously used for agriculture to another use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how many acres will be converted? _____ acres (An agricultural economic feasibility study may be required.) |
| 20. | Will the development provide public or private recreational opportunities? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, explain: |
| 21. | Is the proposed development visible from: A. State Highway 1 or other scenic route? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No B. Park, beach or recreation area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 22. | Will the project involve the use or disposal of potentially hazardous materials such as toxic substances, flammables, or explosives? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, explain: |
| 23. | Does the development involve diking, filling, dredging or placing structures in open coastal waters, wetlands, estuaries or lakes? A. Diking <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No B. Filling <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No C. Dredging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No D. Placement of structures in open coastal waters, wetlands, estuaries or lakes <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Amount of material to be dredged or filled? <u>N/A</u> cubic yards. Location of dredged material disposal site: <u>N/A</u> Has a U.S. Army Corps of Engineers permit been applied for? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

If you need additional room to answer any question, attach additional sheets.



Aum Construction Inc.
General Contractor Lic. 817115
www.AumConstruction.com

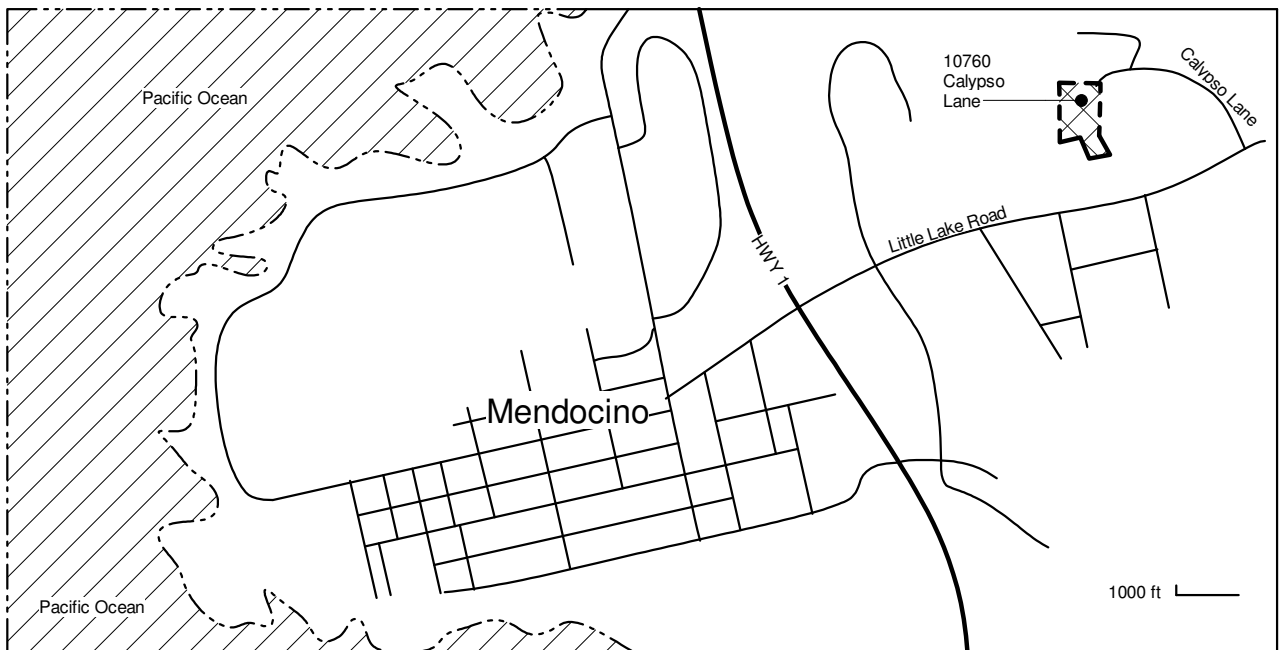
| <u>Areas:</u> | |
|------------------|-----------|
| Building Area - | 3000 sqft |
| Hardscape Area - | 5110 sqft |



1 Site - 8.5 x 11
1" = 80'-0"

Cayps0 Lane Property

Sheppard, Noah
10760 Calypso Lane, Mendocino, CA
95460



APN #: 119-09-046

SCALE : As indicated

DATE: 09/29/2019

DRAWN BY : SLLC

PBS Received 9-30-2019

APN 119-090-46

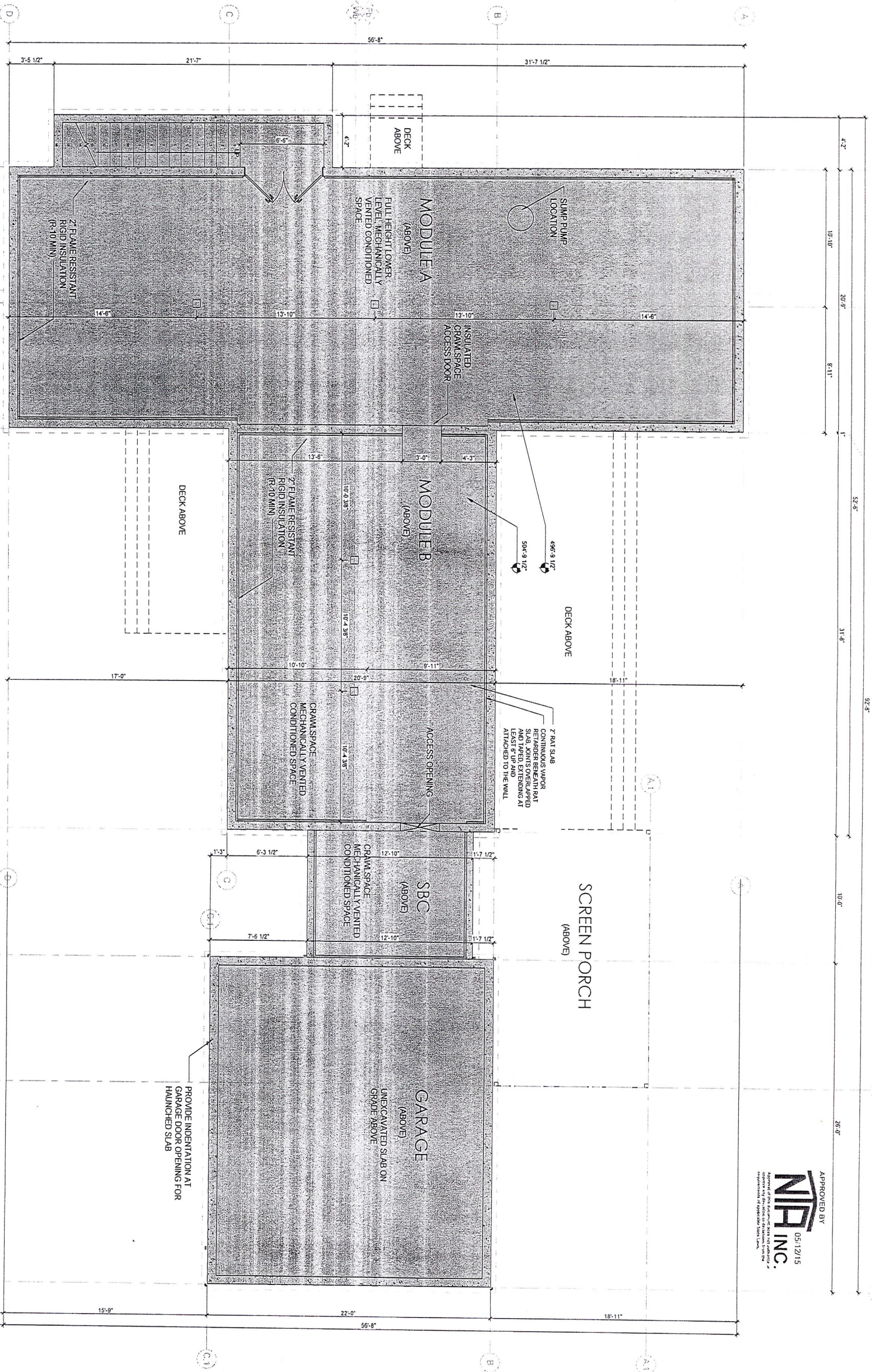
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1
1/4" = 1'-0"

T.O. FOOTING

SHEET INCLUDED FOR REFERENCE ONLY. LOWER LEVEL TO BE PERMITTED AND INSPECTED BY LOCAL JURISDICTION. REFER TO LOCAL APPROVED DRAWINGS FOR MOST CURRENT INFORMATION.

STATE SHEET LEGEND
SHADED AREA INDICATES SITE BUILT ITEMS PERMITTED LOCALLY



APPROVED BY
NTH INC.
05/12/15

SUBMITTAL: STATE

| REVISION | DATE | DRAWN: | CHECKED: | DESCRIPTION |
|----------|----------|--------|----------|-------------------------|
| 1 | 04/21/15 | CFM | MS | STATE SUBMITTAL |
| 2 | 05/11/15 | CFM | MS | REVISED STATE SUBMITTAL |
| | | | | |
| | | | | |
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| | | | | |
| | | | | |



1245 NIMITZ AVE
MARE ISLAND, CA 94592
T: 886.887.7997
www.bluhomes.com

SHEPPARD RESIDENCE

10760 CALYPSO LANE
MENDOCINO, CA
95460

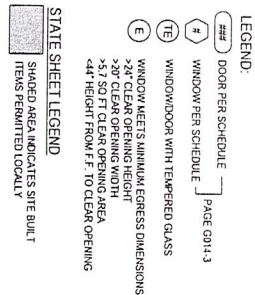
BLU HOMES:
SALES: LORIAN KRIZ
MANAGER:
A&E: MATT SCHULTE
CARL MILLER
"SEE SHEET 0010 FOR COMPLETE BLU HOMES AND PROJECT CONSULTANT CONTACT INFORMATION"
FOR CONSULTANT USE

SHEET TITLE
LOWER LEVEL &
CRAWLSPACE PLAN

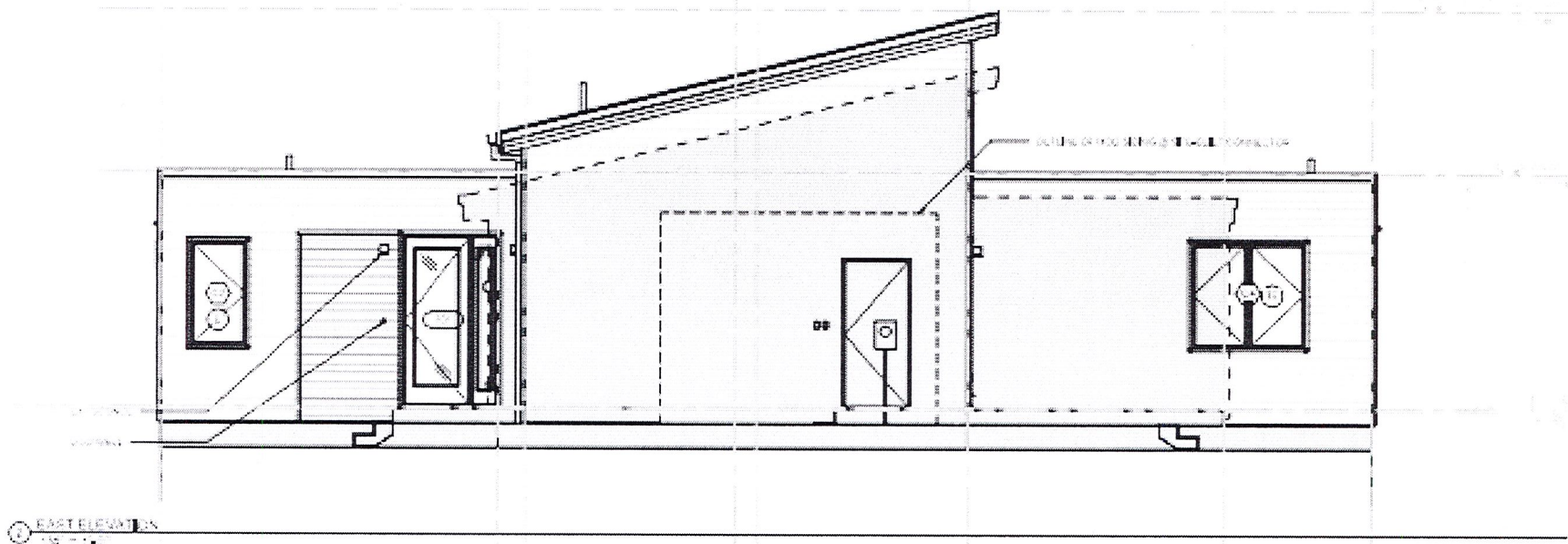
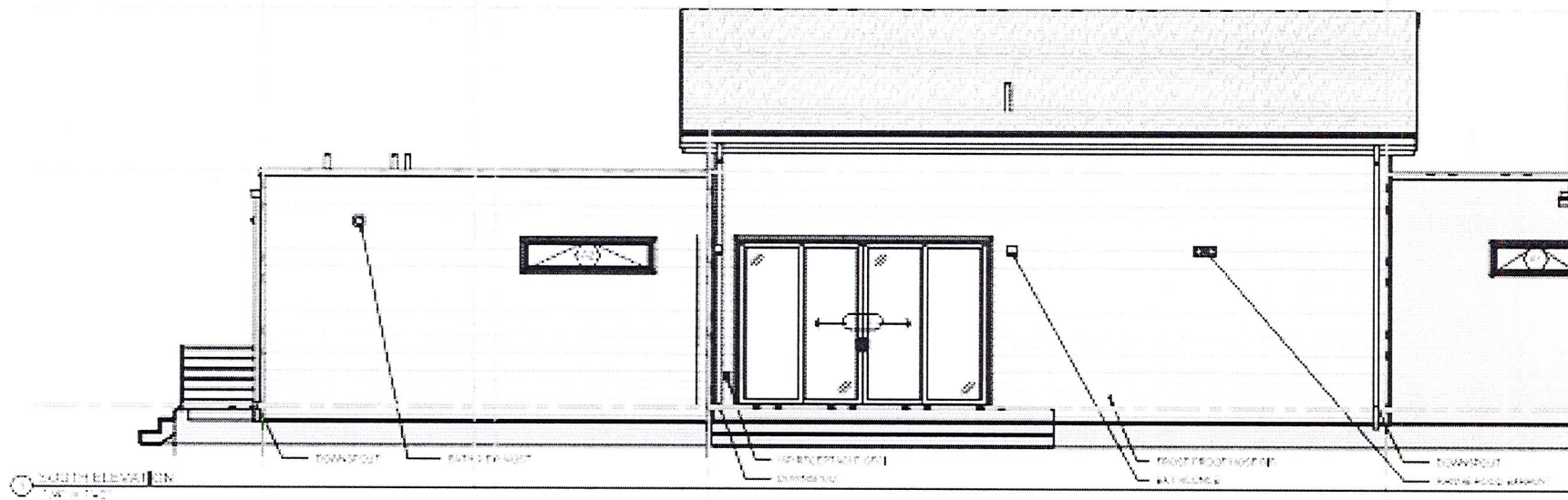
SCALE AT 2X3X:
SHEET NUMBER:

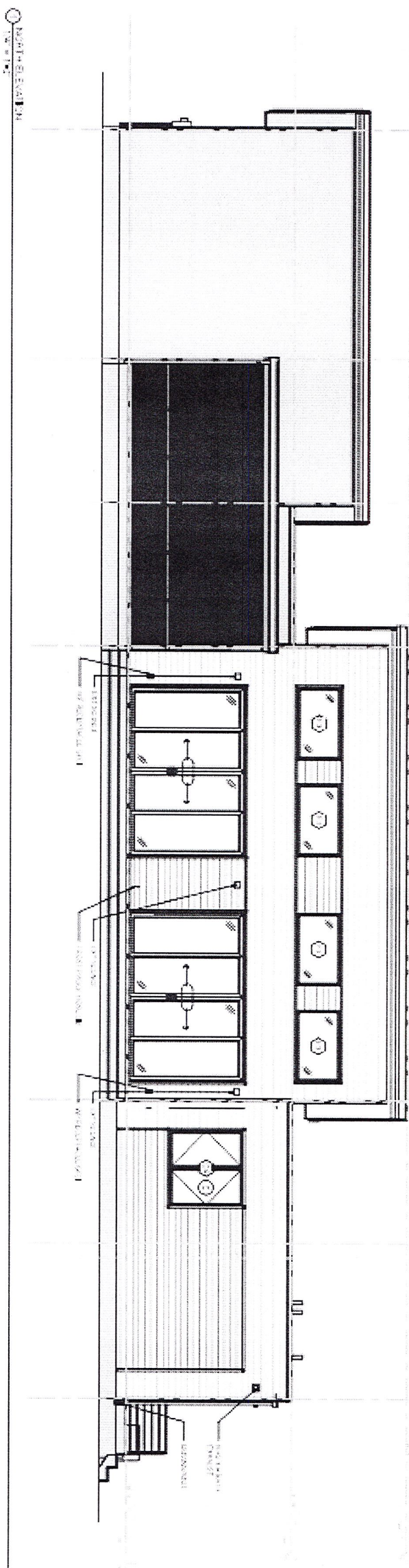
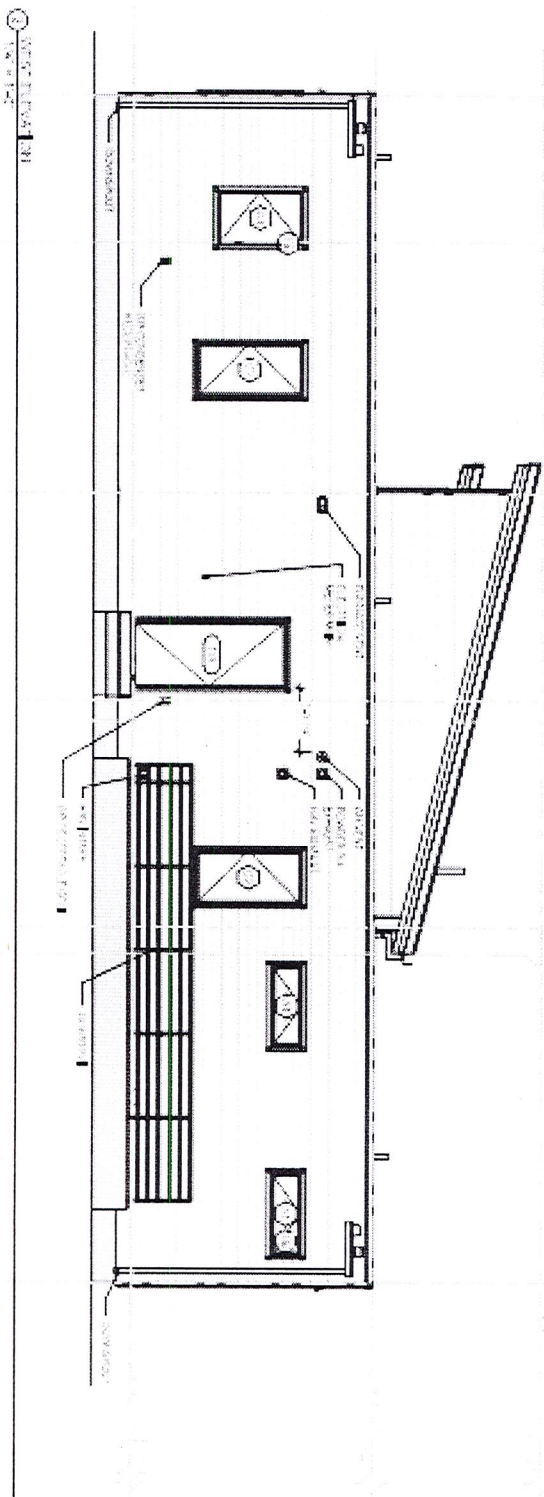
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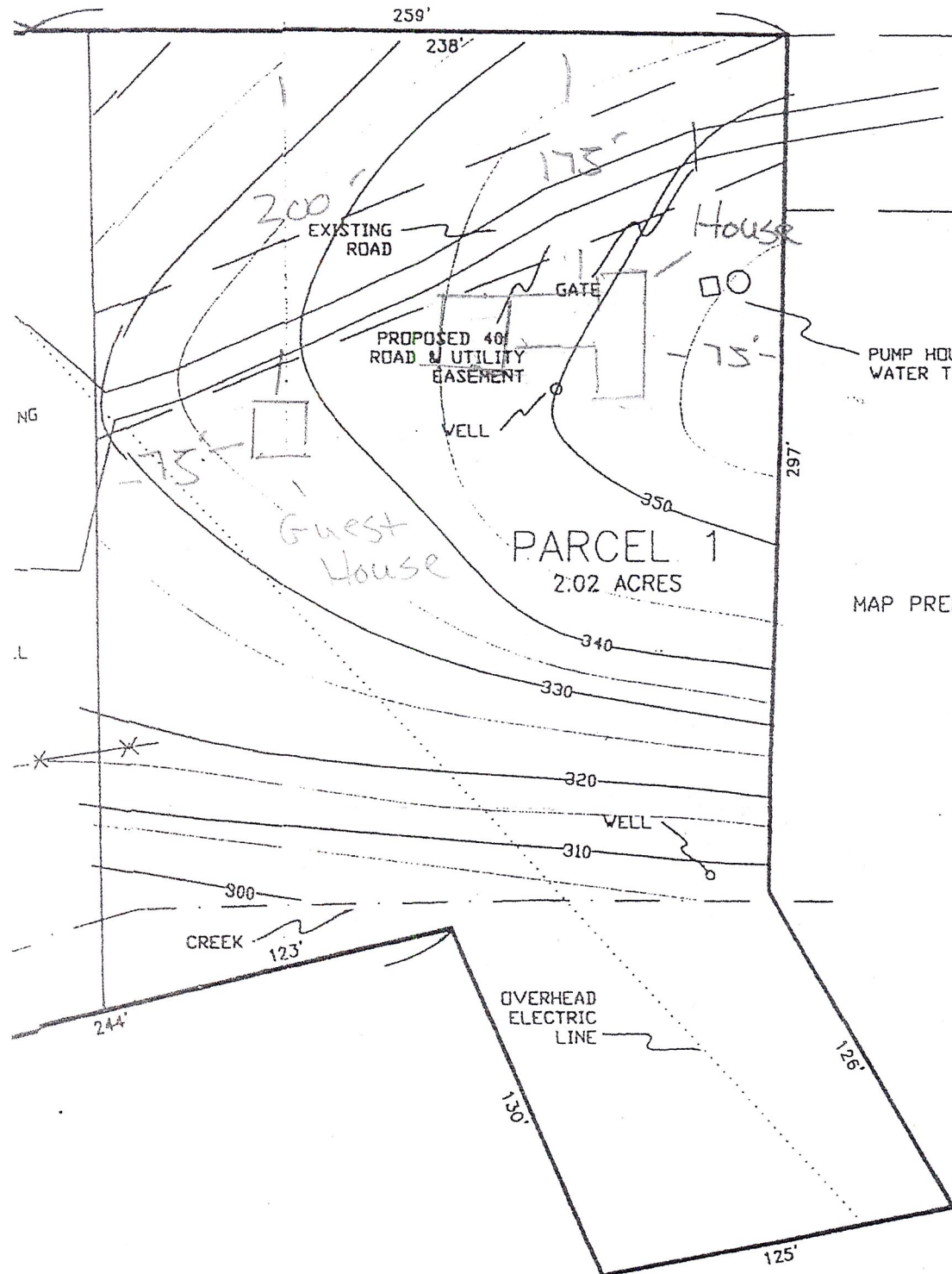
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| | | |
|--|--|--|
| <p>BLU HOMES: LORIANN KRIZ</p> <p>MANAGER: MATT SCHULTE</p> <p>SALES: CARL MILLER</p> <p>FOR COMPLETANT USE: SEE SHEET 00042 FOR COMPLETE BLU HOMES AND PROJECT GENERAL CONTRACT INFORMATION</p> | <p>SHEPPARD RESIDENCE</p> <hr/> <p>10760 CALYPSO LANE MENDOCINO, CA 95460</p> | <p>blu HOMES®</p> <p>1245 NIMITZ AVE MARE ISLAND, CA 94592 T: 886.887.7997 www.bluhomes.com</p> |
|--|--|--|





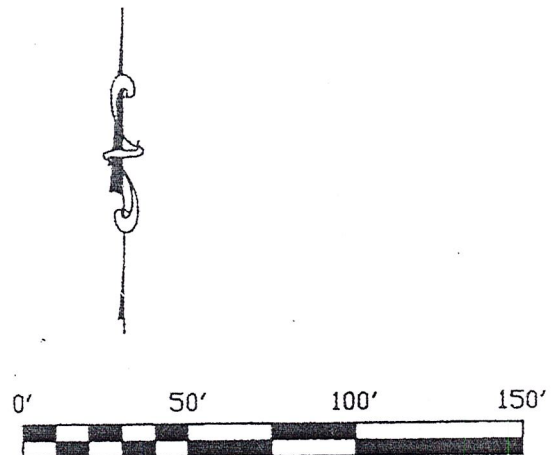
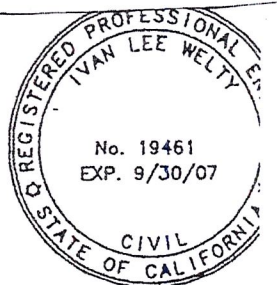


EXISTING 60'
ROAD & UTILITY
EASEMENT TO
LITTLE LAKE ROAD
C. R. 408

MAP PREPARED BY: I. L. WELTY & ASSOCIATES
703 A NORTH MAIN STREET
FORT BRAGG, CALIFORNIA 95437
PHONE: (707) 964-8865

Ivan Lee Welty
IVAN LEE WELTY

R.C.E.19641



MENDOCINO CITY COMMUNITY SERVICES DISTRICT

Post Office Box 1029

Mendocino, CA 95460

Business Phone (707) 937-5790 Treatment Plant (707) 937-5751 Fax (707) 937-3837

December 20, 2018

Julianna Cherry
Mendocino County
Department of Planning and Building
Fort Bragg, CA 95437

RE: APN 119-090-35, 10770 Calypso Lane, Mendocino

Dear Ms. Cherry:

The following actions have occurred with regard to sewer service and groundwater extraction on Assessor Parcel 119-090-35.

On December 19, 2005, the Board of Directors approved the Hydrological Study which was performed on APN 119-090-35, for determination of water quantity for a minor subdivision and future development of a single-family residence on the new parcel.

Prior to development on the parcel, the owner is required to submit an application for a Groundwater Extraction Permit and pay the required permit fee. The allotment would not exceed 276 gallons per day, based on the aquifer test data and the conclusions of the approved Hydrological Study.

The District currently has sewer plant capacity to provide service. There is an approved application for a Sewer Lateral Connection and fees have been paid to establish development of a single-family residence. The actual sewer lateral connection to the collection main line would require MCCSD inspection.

Thank you.

Sincerely,



Jodi Mitchell

District Secretary

Owner/Agent Information

CAL FIRE File Number 242-18 Date 05/21/18
Owner's Last Name Shepard Owner's First Name Noah
Owner's Phone Number (707) 813-8138
Owner's Mailing Address P.O. Box 112 Albion, CA. 95410 Agent/Phone # _____

Project Information

Project Street # 10760 Project Street Name Calypso Ln Type of Project Ne Build
Project City/Community Mendocino Battalion 6 Fort Bragg Finaled ☐

Conditions of Approval

With reference to the above case number, the California Department of Forestry and Fire Protection requires the following MINIMUM standards as set forth in Title 14, "Natural Resources; Div. 1.5, be adhered to in order to gain a "Final Clearance" and "Approval for occupancy" from this Department. Local agencies may have additional requirements that may be more restrictive.

☒ **Address Standard**

California Code of Regulations, Title 14, Section 1274.01

Address must be posted at the beginning of construction and maintained thereafter. It shall be posted on BOTH sides of a mailbox or post at driveway entrance so it is visible from BOTH directions of travel. Minimum 3 inch letter height, 3/8 inch stroke. Reflectorized, contrasting with background color. Sequential numbering issued by Mendocino County will be utilized. Multiple Addresses will be on a single post.

☒ **Driveway Standard**

California Code of Regulations, Title 14, Section 1273.10

Driveway will be minimum 10 feet wide, all weather surface. It shall be a maximum of 16 % grade, minimum 50 feet inside radius on turns, and have a minimum 15 feet vertical clearance. Driveways longer than 150 feet, but less than 800 feet require a turnout near the midpoint. Driveways longer than 800 feet require turnouts every 400 feet. Turnouts shall be a minimum 10 feet wide and 30 feet long with a 25 foot taper at each end. A 40 foot radius turnaround or 60 foot hammerhead "T" is required for driveways longer than 300 feet and must be within 50 feet of the building. Gates will be 2 feet wider than the traffic lane and located at least 30 feet in from the road.

☐ **Road Standard**

California Code of Regulations, Title 14, Section 1273

Roads will have two-10 foot traffic lanes (20 ft. wide road surface), Minimum 40,000 lb. load capacity, and have an all weather surface. Roads will have a maximum grade of 16%, a minimum curve radius of 50 foot, and a minimum of 15 foot vertical clearance. Dead end roads shall not exceed: 800 ft for parcels 1 acre or less - 1320 ft. for parcels 1 to 4.99 acres - 2640 ft. for parcels 5 to 19.99 acres - 5280 ft. for parcels 20 acres or larger. Dead end roads are also required to have turnarounds every 1320 ft. and at terminus. Turnarounds shall be a minimum 40 ft. radius or 60 ft. hammerhead "T". Roads shall be officially recognized by Mendocino County with approved signs at each intersection and visible for 100 feet from both directions. The sign shall be minimum 3 inch letter height, 3/8 inch stroke, reflectorized and contrasting with background color. One Way Road Standards (if approved) are available from this office.

RECEIVED

DEC 19 2018

PLANNING & BUILDING SERV
FORT BRAGG, CA
APN 119-090-46

Teresa R Spade, AICP
 Spade Natural Resources Consulting
 PO Box 1503
 Mendocino, CA 95460
 phone: 707-397-1802
 spadenrc@gmail.com



To: Juliana Cherry, Planner III
 County of Mendocino

RECEIVED

RECEIVED

Date: September 9, 2019

SEP 13 2019

SEP 12 2019

Re: CDP 2018-0012 Sheppard Botanical Update Report Clarifications
 PLANNING & BUILDING SERV
 FORT BRAGG CA

PLANNING & BUILDING SERV
 FORT BRAGG CA

Dear Ms. Cherry:

In your hold letter, dated August 26, 2019, you request clarifications regarding the recently submitted botanical update letter for CDP 2018-0012 Sheppard. Those clarifications are provided as follows:

The update letter incorrectly indicates on page one of the letter that the soils are mapped as Abalobadiah – Bruhel – Vizcaino complex soils. This was a holdover from the template, and I apologize for the confusion. The soil report included as Appendix D of the update letter correctly shows the mapped soil type as Shinglemill-Gibney complex, 2-9 percent slopes. I have revised page one of the update letter to be consistent with the Appendix D. That page is attached.

You suggest that Shinglemill-Gibney soils are likely to be hydric and are associated with pygmy type vegetation.

The Shinglemill -Gibney complex is comprised of 45% Shinglemill soils, which are a hydric soil type, 5% Tregoning soils, which are hydric, and 5% Tropaquepts which are hydric. The remainder of soils are non-hydric. The USDA hydric soils list can be found at <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>.

On the subject property, no potential wetland areas were observed outside of the mapped riparian area. Neither the original report by Mr. Maslach nor my follow up letter called out any potential wetlands in the project area. A follow up soil analysis is unwarranted.


Pygmy forest is generally associated with Blacklock and Aborigine soils. Although small areas of Blacklock are found in the Shinglemill-Gibney complex, most areas of Shinglemill-Gibney soils are not pygmy. As shown in the plant list, no rare pygmy vegetation was found on or near the site.

Your letter suggests that the onsite mixed coniferous forest includes three special status sensitive natural communities, and should therefore be considered ESHA. In response to your letter, I consulted with Todd Keeler-Wolf and Diana Hickson of Department of Fish and Wildlife. Per their input, I am classifying the surrounding forest as Grand Fir Forest (Abies grandis Forest Alliance (G4 S2.1). I have been informed that Department of Fish and Wildlife no longer views only high quality stands as worthy of protection. This is because some examples of rare types could be restored and are therefore still

valuable and worthy of protection. Based on this new information, I agree that the Grand Fir Forest surrounding the project area, although not old growth or a high-quality stand, should qualify as Other Resource Areas ESHA per DFW guidance.

I am therefore providing a revised map, showing the onsite forest as Grand Fir Forest. I am also providing a reduced buffer analysis.

Sincerely,



Teresa R Spade, AICP

Spade Natural Resources Consulting

Table 4. Sec. 20.496.020 ESHA -- Development Criteria.

(A) Buffer Areas. A buffer area shall be established adjacent to all environmentally sensitive habitat areas. The purpose of this buffer area shall be to provide for a sufficient area to protect the environmentally sensitive habitat from degradation resulting from future developments and shall be compatible with the continuance of such habitat areas.

Reduced buffer areas are being established for the Grand Fir Forest, an Other Resource Area.

(1) Width. The width of the buffer area shall be a minimum of one hundred (100) feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game, and County Planning staff, that one hundred (100) feet is not necessary to protect the resources of that particular habitat area from possible significant disruption caused by the proposed development. The buffer area shall be measured from the outside edge of the Environmentally Sensitive Habitat Areas and shall not be less than fifty (50) feet in width. New land division shall not be allowed which will create new parcels entirely within a buffer area. Developments permitted within a buffer area shall generally be the same as those uses permitted in the adjacent Environmentally Sensitive Habitat Area.

The recommended width of the buffer area is 50 feet.

Standards for determining the appropriate width of the buffer area are as follows:

(1a) Biological Significance of Adjacent Lands.

Lands adjacent to a wetland, stream, or riparian habitat area vary in the degree to which they are functionally related to these habitat areas. Functional relationships may exist if species associated with such areas spend a significant portion of their life cycle on adjacent lands. The degree of significance depends upon the habitat requirements of the species in the habitat area (e.g., nesting, feeding, breeding, or resting).

Where a significant functional relationship exists, the land supporting this relationship shall also be considered to be part of the ESHA, and the buffer zone shall be measured from the edge of these lands and be sufficiently wide to protect these functional relationships. Where no significant functional relationships exist, the buffer shall be measured from the edge of the wetland, stream, or riparian habitat that is adjacent to the proposed development.

No functional relationships are noted. Lands adjacent to the Grand Fir Forest are non-native grasslands with invasive plant species present. There are no wetlands, streams or riparian habitats between the Grand Fir Forest and non-native grassland. The riparian area and streams are over 100 feet from the development area and are not subject to the reduced buffer analysis.

Table 4. Sec. 20.496.020 ESHA -- Development Criteria.

(1b) Sensitivity of Species to Disturbance. The width of the buffer zone shall be based, in part, on the distance necessary to ensure that the most sensitive species of plants and animals will not be disturbed significantly by the permitted development. Such a determination shall be based on the following after consultation with the Department of Fish and Game or others with similar expertise:

(1b-i) Nesting, feeding, breeding, resting, or other habitat requirements of both resident and migratory fish and wildlife species;

(1b-ii) An assessment of the short-term and long-term adaptability of various species to human disturbance;

(1b-iii) An assessment of the impact and activity levels of the proposed development on the resource.

Special status species that may be present in the Grand Fir Forest include special status and nesting birds, special status bats and Sonoma tree vole. If these species are present within 100 feet of the development area, they are already adapted to human disturbance, since there are residences on both the east and west sides of the subject property.

(1c) Susceptibility of Parcel to Erosion. The width of the buffer zone shall be based, in part, on an assessment of the slope, soils, impervious surface coverage, runoff characteristics, and vegetative cover of the parcel and to what degree the development will change the potential for erosion. A sufficient buffer to allow for the interception of any additional material eroded as a result of the proposed development should be provided.

The project area is relatively flat.

(1d) Use of Natural Topographic Features to Locate Development. Hills and bluffs adjacent to ESHA's shall be used, where feasible, to buffer habitat areas. Where otherwise permitted, development should be located on the sides of hills away from ESHA's. Similarly, bluff faces should not be developed, but shall be included in the buffer zone.

The property slopes downward towards the river, however this slope location is less than 50 feet from the forest edge. The proposed 50 foot buffer is more protective than use of natural topographic features.

Table 4. Sec. 20.496.020 ESHA -- Development Criteria.

(1e) Use of Existing Cultural Features to Locate Buffer Zones. Cultural features (e.g., roads and dikes) shall be used, where feasible, to buffer habitat areas. Where feasible, development shall be located on the side of roads, dikes, irrigation canals, flood control channels, etc., away from the ESHA.

There are no existing cultural features that could be used to delineate a buffer zone.

(1f) Lot Configuration and Location of Existing Development. Where an existing subdivision or other development is largely built-out and the buildings are a uniform distance from a habitat area, at least that same distance shall be required as a buffer zone for any new development permitted. However, if that distance is less than one hundred (100) feet, additional mitigation measures (e.g., planting of native vegetation) shall be provided to ensure additional protection. Where development is proposed in an area that is largely undeveloped, the widest and most protective buffer zone feasible shall be required.

As seen on GoogleEarth aerial photography, surrounding development is closer than 50 feet to the Grand Fir Forest.

(1g) Type and Scale of Development Proposed. The type and scale of the proposed development will, to a large degree, determine the size of the buffer zone necessary to protect the ESHA. Such evaluations shall be made on a case-by-case basis depending upon the resources involved, the degree to which adjacent lands are already developed, and the type of development already existing in the area.

The proposed development consists of a single family residence and associated development. Residences are commonly in and near forests.

(2) Configuration. The buffer area shall be measured from the nearest outside edge of the ESHA (e.g., for a wetland from the landward edge of the wetland; for a stream from the landward edge of riparian vegetation or the top of the bluff).

The buffer areas are measured from the nearest outside edge of the dripline of trees and other vegetation, interpreted from aerial photography.

(3) Land Division. New subdivisions or boundary line adjustments shall not be allowed which will create or provide for new parcels entirely within a buffer area.

No new subdivisions or boundary line adjustments are proposed.

(4) Permitted Development. Development permitted within the buffer area shall comply at a minimum with the following standards:

Development would be located within the buffer area of the following sensitive resources: Grand fir forest. Development within this area would include a single family residence and associated development.

(4a) Development shall be compatible with the continuance of the adjacent habitat area by maintaining the functional capacity, their ability to be self-sustaining and maintain natural species diversity.

Development will not require removal of trees or other vegetation within the forested area. No impacts will occur to the forest that would change functional capacity or species diversity.

(4b) Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel.

The least damaging place for the proposed structures is within the existing non-native grassland. There is no other feasible less damaging location on the property.

(4c) Development shall be sited and designed to prevent impacts which would degrade adjacent habitat areas. The determination of the best site shall include consideration of drainage, access, soil type, vegetation, hydrological characteristics, elevation, topography, and distance from natural stream channels. The term "best site" shall be defined as the site having the least impact on the maintenance of the biological and physical integrity of the buffer strip or critical habitat protection area and on the maintenance of the hydrologic capacity of these areas to pass a one hundred (100) year flood without increased damage to the coastal zone natural environment or human systems.

The best site is within the non-native grassland.

(4d) Development shall be compatible with the continuance of such habitat areas by maintaining their functional capacity and their ability to be self-sustaining and to maintain natural species diversity.

Development is proposed within the non-native grassland. There is no other feasible site on the parcel. There will not be any riparian vegetation lost as a result of this project.

(4e) Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel. Mitigation measures, such as planting riparian vegetation, shall be required to replace the protective values of the buffer area on the parcel, at a minimum ratio of 1:1, which are lost as a result of development under this solution.

There is no other feasible less impacting location as discussed above.

(4f) Development shall minimize the following: impervious surfaces, removal of vegetation, amount of bare soil, noise, dust, artificial light, nutrient runoff, air pollution, and human intrusion into the wetland and minimize alteration of natural landforms.

Development is designed to minimize impacts.

(4g) Where riparian vegetation is lost due to development, such vegetation shall be replaced at a minimum ratio of one to one (1:1) to restore the protective values of the buffer area.

No riparian or wetland vegetation will be lost.

(4h) Aboveground structures shall allow peak surface water flows from a one hundred (100) year flood to pass with no significant impediment.

The project is not located in a 100 year flood zone.

(4i) Hydraulic capacity, subsurface flow patterns, biological diversity, and/or biological or hydrological processes, either terrestrial or aquatic, shall be protected.

With the recommended mitigation measures included in the botanical study, all hydrology and biologic processes are expected to be protected and maintained.

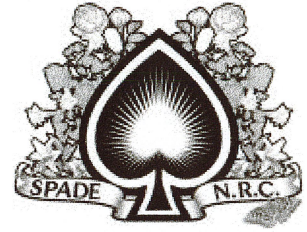
(4j) Priority for drainage conveyance from a development site shall be through the natural stream environment zones, if any exist, in the development area. In the drainage system design report or development plan, the capacity of natural stream environment zones to convey runoff from the completed development shall be evaluated and integrated with the drainage system wherever possible. No structure shall interrupt the flow of groundwater within a buffer strip. Foundations shall be situated with the long axis of interrupted impermeable vertical surfaces oriented parallel to the groundwater flow direction. Piers may be allowed on a case by case basis.

The project area is relatively flat and stormwater runoff is not expected to result in detrimental impacts to the forest.

(4k) If findings are made that the effects of developing an ESHA buffer area may result in significant adverse impacts to the ESHA, mitigation measures will be required as a condition of project approval. Noise barriers, buffer areas in permanent open space, land dedication for erosion control, and wetland restoration, including off-site drainage improvements, may be required as mitigation measures for developments adjacent to environmentally sensitive habitats. (Ord. No. 3785 (part), adopted 1991)

Mitigation measures are included to assure the project as a whole will not result in impacts to sensitive resources.

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August 27, 2019

UPDATE LETTER TO BOTANICAL SURVEY FOR 10770 CALYPSO LANE, MENDOCINO (APN 119-090-46)

The property was surveyed by William Maslach in May, June, July and August of 2006, as outlined in his August 2006 Botanical Survey Report. A survey update has been requested by the County and is hereby provided.

Teresa Spade of Spade Natural Resources Consulting visited the project site on April 26, May 20, June 7, and July 24, 2019, to determine if special status plants or other Environmentally Sensitive Habitat Areas were present.

According to the 2006 botanical survey report by William Maslach, streams are present offsite to the north of the property, and onsite to the south of the project area. Mr. Maslach found five corn lilies growing along the stream.

For our 2019 update, the project area and other areas of the parcel were surveyed during the bloom windows of any potentially present special status plant species. The corn lilies observed by Mr. Maslach are still present along the streamside, over 100 feet from the project area. No additional special status plants were observed. The streams are still more than 100 feet from the project area.

Scoping for the project included a California Native Plant Society (CNPS) 9 Quad Search, as well as CNDDDB and BIOS searches (Appendix A, Scoping Lists). The 2006 report by William Maslach was also reviewed. Surveys were conducted by Teresa Spade of Spade Natural Resources Consulting. Teresa Spade has a BS degree in Natural Resources Planning and Interpretation from Humboldt State University, and nine years of field experience with Spade Natural Resources Consulting and Caltrans.

Soils in the project area are mapped as Shinglemill Gibney complex, 2-9% slopes (NRCS Custom Soil Report, Appendix D). The Shinglemill -Gibney complex contains 45% Shinglemill soils, 5% Tregoning soils, and 5% Tropaeuets soils, which are hydric. The remainder of soils are non-hydric.

Botanical surveys consisted of walking and observing all areas of vegetation within the mapped survey areas. Vegetation alliances were noted, and all plant species observed were listed (Appendix B). No special status plants were observed during 2018 surveys.

The forest surrounding the project area is best described as mixed coniferous forest, as is indicated in Mr. Maslach's study. The overstory species present are grand fir (*Abies grandis*), Douglas fir (*Pseudotsuga menziesii*), hemlock (*Tsuga heterophylla*), Bishop pine (*Pinus muricata*), redwood (*Sequoia sempervirens*) and

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August 23, 2019

UPDATE LETTER TO BOTANICAL SURVEY FOR 10770 CALYPSO LANE, MENDOCINO (APN 119-090-46)

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Soils in the project area are generally mapped as Abalobadiah – Bruhel – Vizcaino complex, 50 to 75% slopes, in the areas where botanical surveys occurred. The steeper riparian areas are mapped with Dystropepts, 30 to 75% slopes (NRC Custom Soil Report, Appendix D).

Botanical surveys consisted of walking and observing all areas of vegetation within the mapped survey areas. Vegetation alliances were noted, and all plant species observed were listed (Appendix B). No special status plants were observed during 2018 surveys.

The forest surrounding the project area is best described as mixed coniferous forest, as is indicated in Mr. Maslach's study. The overstory species present are grand fir (*Abies grandis*), Douglas fir (*Pseudotsuga menziesii*), hemlock (*Tsuga heterophylla*), Bishop pine (*Pinus muricata*), redwood (*Sequoia sempervirens*) and

tanoak (*Notholithocarpus densiflorus*). The most dominant overstory species is grand fir, however it does not appear to meet the membership requirement of more than 60% cover in the tree canopy. The grand fir forest is also described as having a sparse to intermittent shrub layer and open to abundant herbaceous layer, and the shrub layer within the subject forest is too thick to allow an open to abundant herbaceous layer. The shrub layer in the forest includes black huckleberry (*Vaccinium ovatum*), rhododendron (*Rhododendron macrophyllum*), salal (*Gaultheria shallon*), red huckleberry (*Vaccinium parviflorum*), and hairy manzanita (*Arctostaphylos columbiana*), and the herbaceous layer is characterized by redwood sorrel (*Oxalis oregana*), sword fern (*Polystichum munitum*), California blackberry (*Rubus ursinus*), chinook brome (*Bromus laevipes*), and Oregon grape (*Berberis aquifolium*).

The project area is located in a non-native grassland dominated by purple velvet grass (*Holcus lanatus*), sweet vernal grass (*Anthoxanthum odoratum*) and hairy cat's ear (*Hypochaeris radicata*).

The red alder riparian area contains red elderberry (*Sambucus racemosa*), thimbleberry (*Rubus parviflorus*), California beeplant (*Scrophularia californica*), salmonberry (*Rubus spectabilis*), veronica (*Veronica americana*) and bugle hedge-nettle (*Stachys ajugoides*).

Sonoma tree vole and Mendocino leptonetid spider may be present in the forested areas, and special status amphibians including Pacific tailed frog, foothill yellow-legged frog, northern red-legged frog, southern torrent salamander, and red-bellied newt may be found in and near the streams. Northern red-legged frog may be found in upland areas of the site during migration. Special status bats and birds, including but not limited to Townsend's big eared bat and osprey may be found on the site. Townsend's big eared bat may be found inside the existing structures, and an osprey nest would be on a tall snag. During survey efforts, none of these species were observed, however avoidance measures would be warranted if potential habitat is to be disturbed.

Spade Natural Resources Consulting recommends the following avoidance measures:

1. Special Status Birds and Bats Avoidance

The bird breeding season typically extends from February to August. Ideally, the clearing of vegetation and the initiation of construction can be done in the non-breeding season between September and January. If these activities cannot be done in the non-breeding season, a qualified biologist shall perform preconstruction breeding bird surveys within 14 days of the onset of construction or clearing of vegetation. If active breeding bird nests are observed, no ground disturbance activities 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 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 disturbances.

As with birds, bat roost sites can change from year to year, so pre-construction surveys are usually necessary to determine the presence or absence of bat roost sites in a given area. Pre-construction bat surveys do not need to be performed if work or vegetation removal is conducted between September 1 and October 31, after young have matured and prior to the bat hibernation period. However, if it is necessary to disturb potential bat roost sites between November 1 and August 31, pre-construction surveys should be conducted. Pre-

construction bat surveys involve surveying trees, rock outcrops, and buildings subject to removal or demolition 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 tree. Removal of roost trees should occur in September and October, or after the bats have left the roost.

2. Special Status Amphibian Avoidance

If development is limited to areas at least 100 feet from streams, potential impacts to most amphibians would be avoided, however northern red-legged frog may be found during migratory times within the project area. Within two weeks prior to construction or demolition, project contractors should be trained by a qualified biologist in the identification of northern red-legged frog. Construction crews will begin each day with a visual search around all stacked or stored materials, as well as along any silt fences to detect the presence of northern red-legged frog. If northern red-legged frog is detected, construction or demolition crews will stop all ground disturbing activities and contact the California Department of Fish and Wildlife or a qualified biologist prior to re-initiating work.

If a rain event occurs during the construction period, all ground disturbing or construction-related activities will cease for a period of 48 hours after the rain stops. Prior to resuming ground disturbing or construction activities, trained construction crew member(s) will examine the site for the presence of northern red-legged frog. If no northern red-legged frogs are found, construction activities may resume.

3. Special Status Sonoma Tree Vole and Mendocino Leptonetid Spider Avoidance

If trees are to be removed or if vegetation is cleared in the forest, surveys should occur first for Sonoma Tree Vole and Mendocino Leptonetid Spider.



Teresa R Spade, AICP

Spade Natural Resources Consulting

Sheppard Calypso Location Map

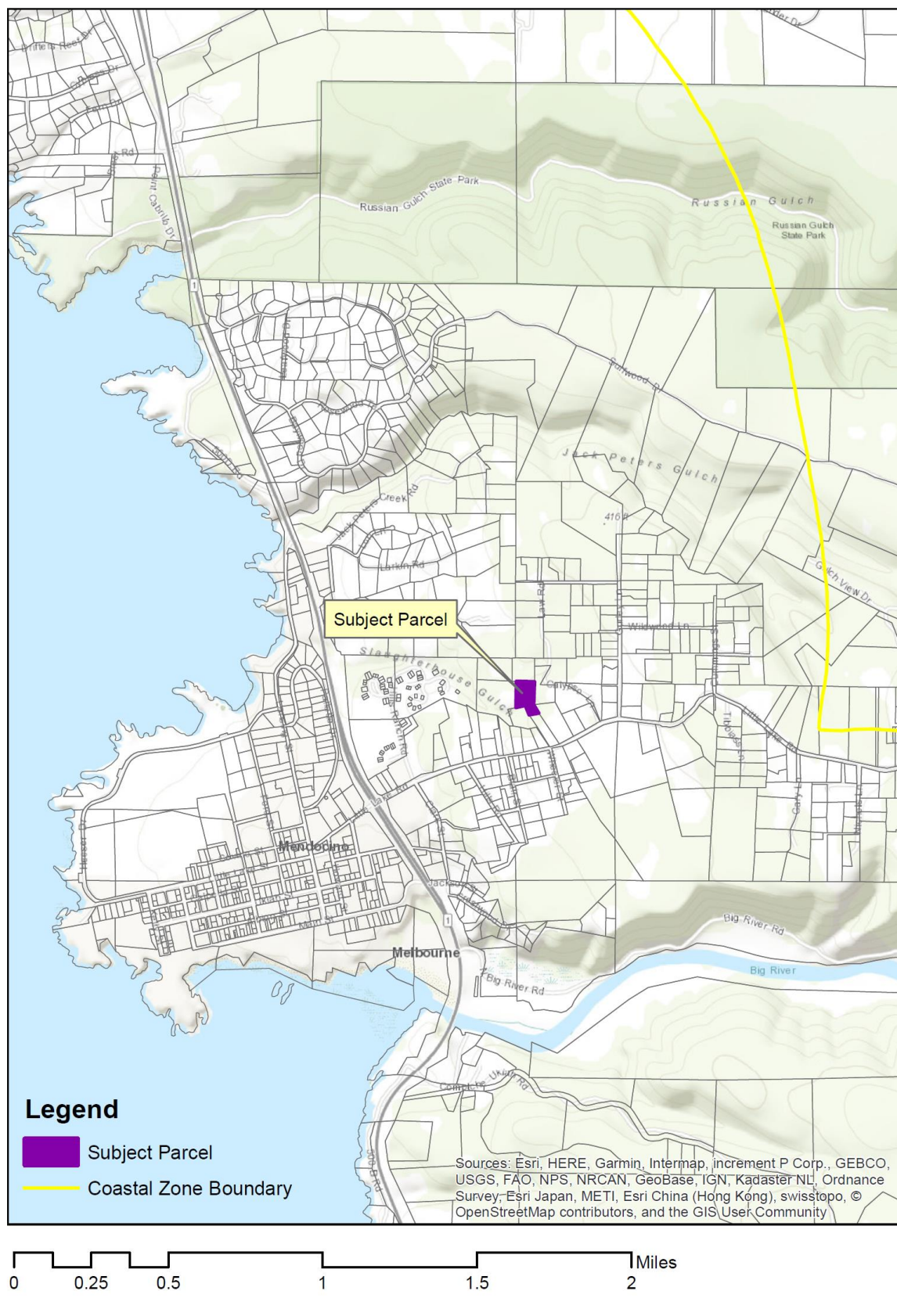
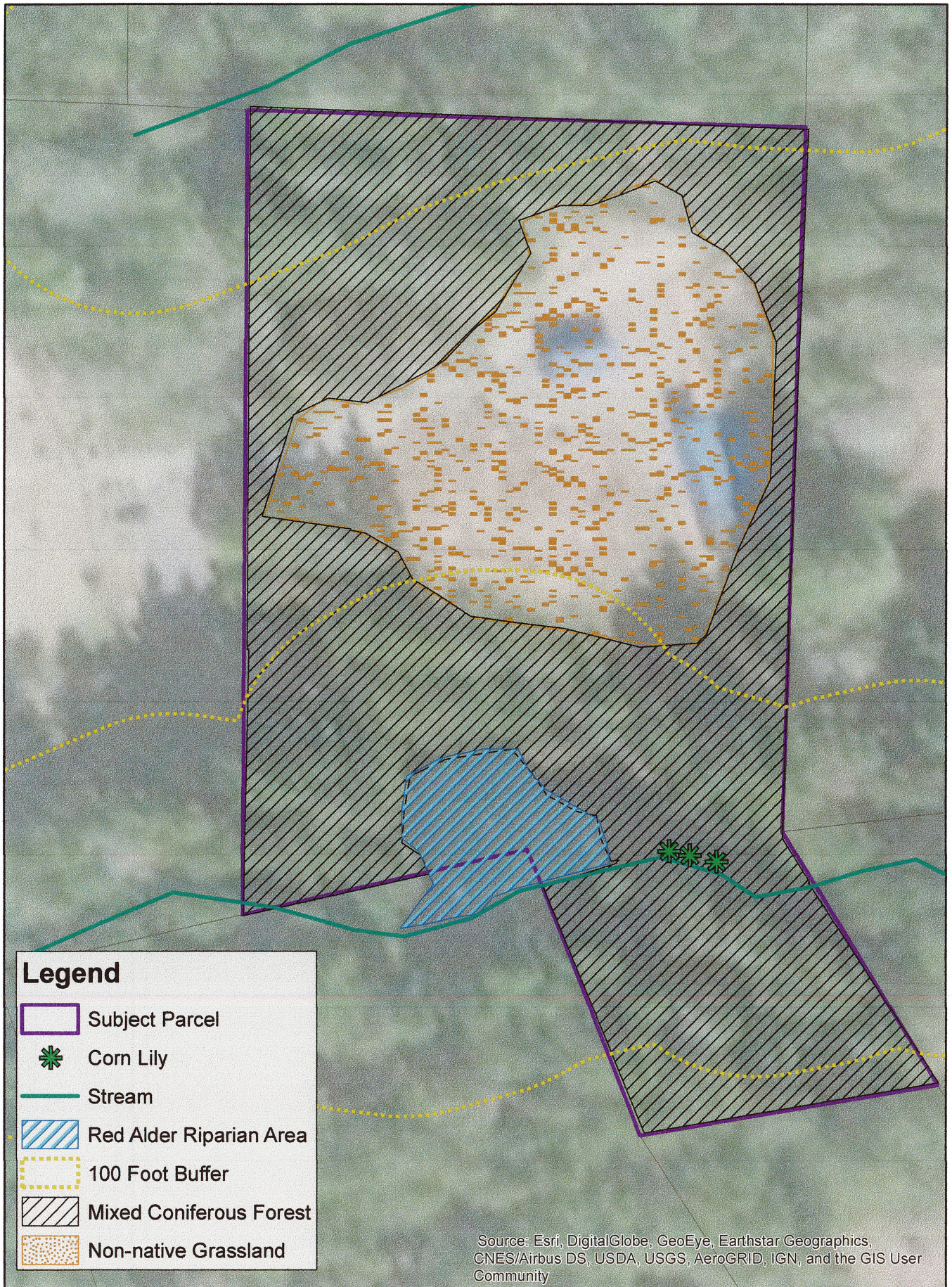


Figure 1. Project location.

Sheppard Calypso ESHA Map



Sheppard Calypso ESHA Map

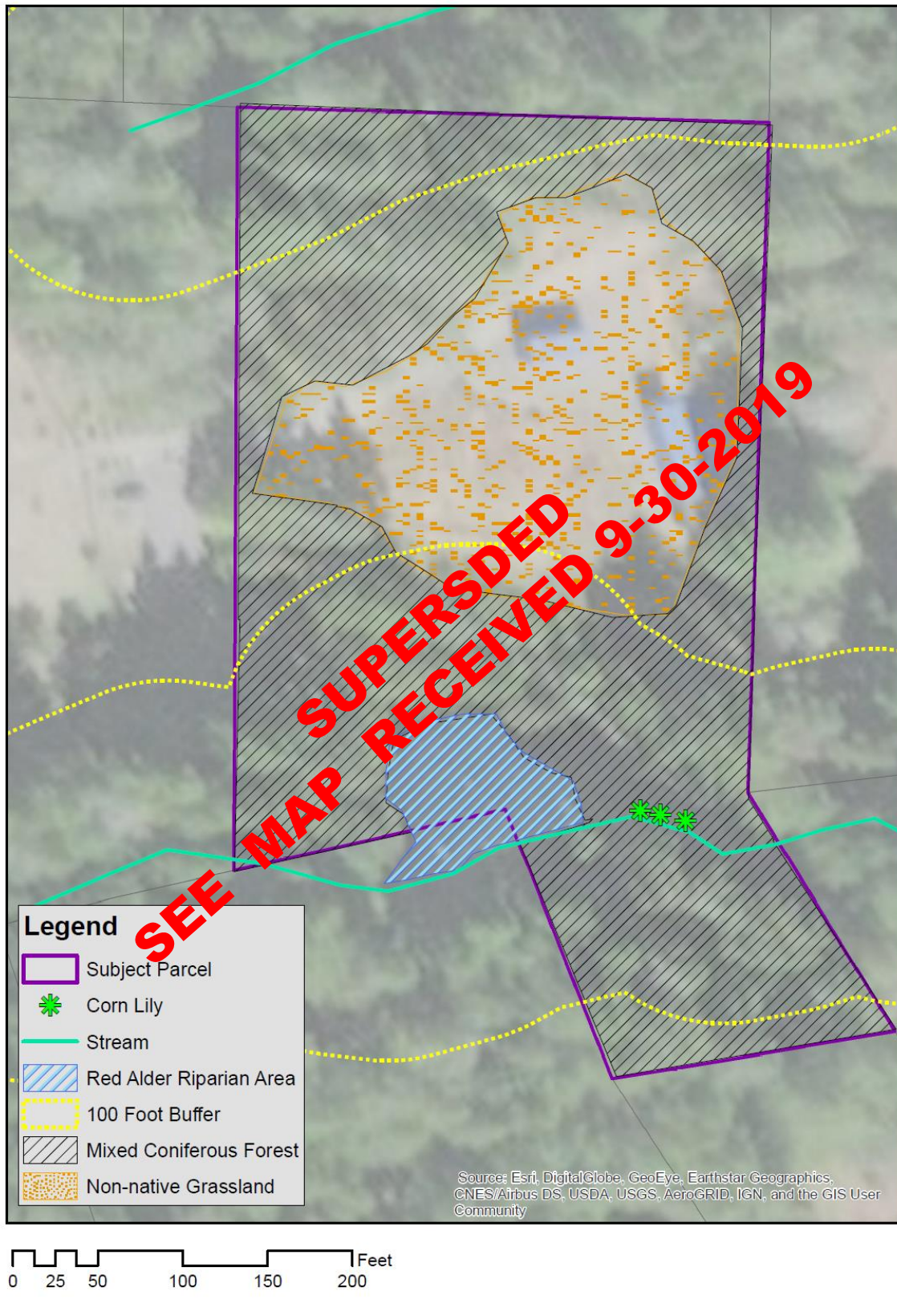


Figure 2. ESHA map.

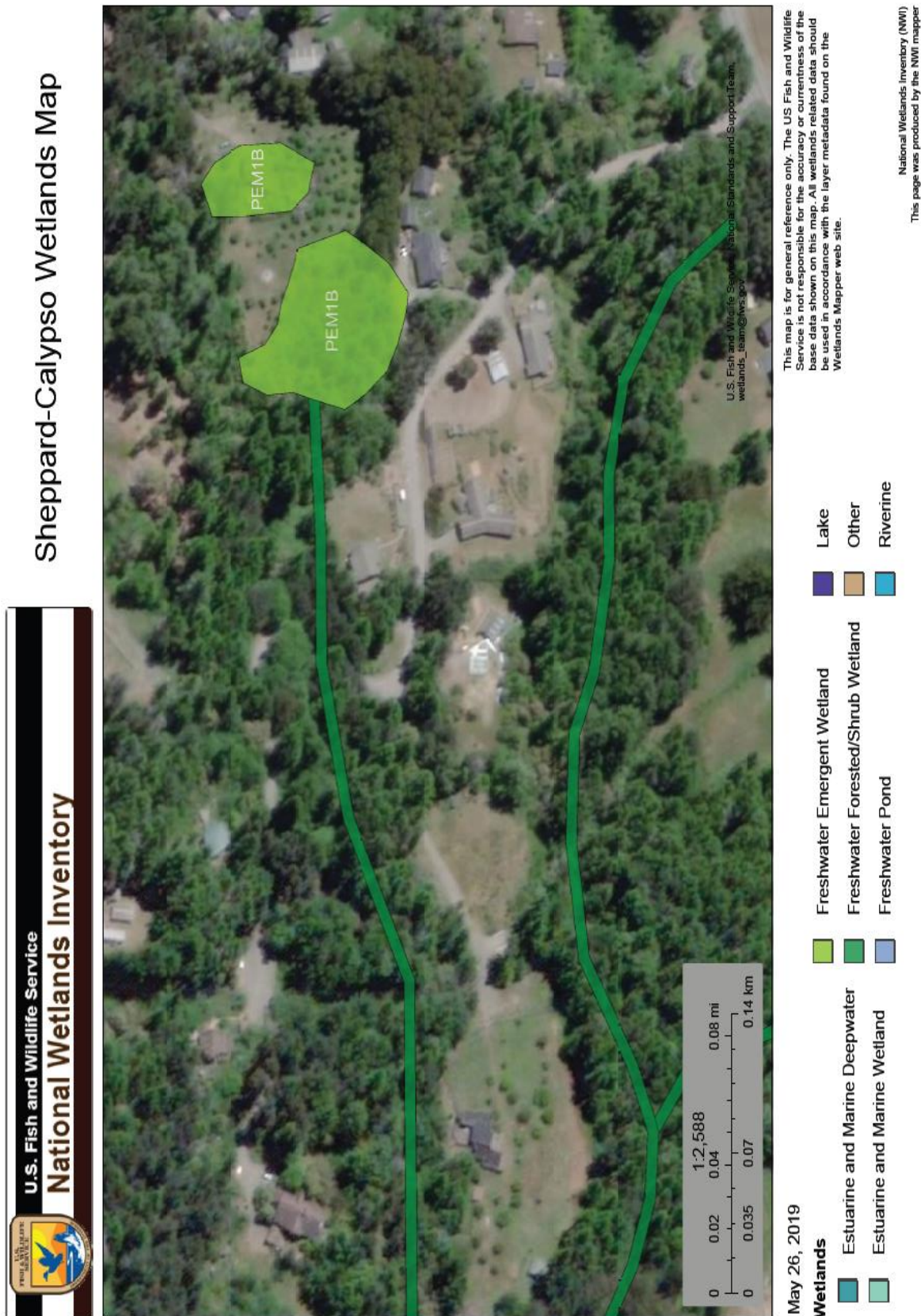


Figure 3. Wetlands Map.

Table 1. CNPS 9-QUAD Search



Plant List

Inventory of Rare and Endangered Plants

69 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3, 4], Found in Quads 3912347, 3912346, 3912337, 3912336 3912327 and 3912326;

[Modify Search Criteria](#)
[Export to Excel](#)
[Modify Columns](#)
[Modify Sort](#)
[Display Photos](#)

| Scientific Name | Common Name | Family | Lifeform | Blooming Period | CA Rare Plant Rank | State Rank | Global Rank |
|---|-----------------------------|----------------|----------------------------|-----------------|--------------------|------------|-------------|
| Abronia umbellata var. breviflora | pink sand-verbena | Nyctaginaceae | perennial herb | Jun-Oct | 1B.1 | S2 | G4G5T2 |
| Agrostis blasdalei | Blasdale's bent grass | Poaceae | perennial rhizomatous herb | May-Jul | 1B.2 | S2 | G2 |
| Angelica lucida | sea-watch | Apiaceae | perennial herb | May-Sep | 4.2 | S3 | G5 |
| Arctostaphylos nummularia ssp. mendocinoensis | pygmy manzanita | Ericaceae | perennial evergreen shrub | Jan | 1B.2 | S1 | G3?T1 |
| Astragalus agnicidus | Humboldt County milk-vetch | Fabaceae | perennial herb | Apr-Sep | 1B.1 | S2 | G2 |
| Blennosperma nanum var. robustum | Point Reyes blennosperma | Asteraceae | annual herb | Feb-Apr | 1B.2 | S2 | G4T2 |
| Calamagrostis bolanderi | Bolander's reed grass | Poaceae | perennial rhizomatous herb | May-Aug | 4.2 | S4 | G4 |
| Calamagrostis crassiglumis | Thurber's reed grass | Poaceae | perennial rhizomatous herb | May-Aug | 2B.1 | S2 | G3Q |
| Calystegia purpurata ssp. saxicola | coastal bluff morning-glory | Convolvulaceae | perennial herb | (Mar)Apr-Sep | 1B.2 | S2S3 | G4T2T3 |
| Campanula californica | swamp harebell | Campanulaceae | perennial rhizomatous herb | Jun-Oct | 1B.2 | S3 | G3 |
| Carex californica | California sedge | Cyperaceae | perennial rhizomatous herb | May-Aug | 2B.3 | S2 | G5 |
| Carex lenticularis var. limnophila | lagoon sedge | Cyperaceae | perennial herb | Jun-Aug | 2B.2 | S1 | G5T5 |
| Carex livida | livid sedge | Cyperaceae | perennial rhizomatous herb | Jun | 2A | SH | G5 |
| Carex lyngbyei | Lyngbye's sedge | Cyperaceae | perennial rhizomatous herb | Apr-Aug | 2B.2 | S3 | G5 |
| Carex saliniformis | deceiving sedge | Cyperaceae | perennial rhizomatous herb | Jun(Jul) | 1B.2 | S2 | G2 |

| | | | | | | | |
|---|---|----------------|-----------------------------------|-------------------------------|------|------|------|
| <u>Castilleja ambigua</u> <u>var. ambigua</u> | johnny-nip | Orobanchaceae | annual herb (hemiparasitic) | Mar-Aug | 4.2 | S3S4 | G4T4 |
| <u>Castilleja ambigua</u> <u>var. humboldtiensis</u> | Humboldt Bay owl's-clover | Orobanchaceae | annual herb (hemiparasitic) | Apr-Aug | 1B.2 | S2 | G4T2 |
| <u>Castilleja litoralis</u> | Oregon coast paintbrush | Orobanchaceae | perennial herb (hemiparasitic) | Jun-Jul | 2B.2 | S3 | G3 |
| <u>Castilleja</u> <u>mendocinensis</u> | Mendocino Coast paintbrush | Orobanchaceae | perennial herb (hemiparasitic) | Apr-Aug | 1B.2 | S2 | G2 |
| <u>Ceanothus gloriosus</u> <u>var. exaltatus</u> | glory brush | Rhamnaceae | perennial evergreen shrub | Mar- Jun(Aug) | 4.3 | S4 | G4T4 |
| <u>Ceanothus gloriosus</u> <u>var. gloriosus</u> | Point Reyes ceanothus | Rhamnaceae | perennial evergreen shrub | Mar-May | 4.3 | S4 | G4T4 |
| <u>Chorizanthe howellii</u> | Howell's spineflower | Polygonaceae | annual herb | May-Jul | 1B.2 | S1 | G1 |
| <u>Chrysosplenium</u> <u>glechomifolium</u> | Pacific golden saxifrage | Saxifragaceae | perennial herb | Feb- Jun(Jul) | 4.3 | S3 | G5? |
| <u>Clarkia amoena ssp.</u> <u>whitneyi</u> | Whitney's farewell-to-spring | Onagraceae | annual herb | Jun-Aug | 1B.1 | S1 | G5T1 |
| <u>Collinsia corymbosa</u> | round-headed Chinese-houses | Plantaginaceae | annual herb | Apr-Jun | 1B.2 | S1 | G1 |
| <u>Coptis laciniata</u> | Oregon goldthread | Ranunculaceae | perennial rhizomatous herb | (Feb)Mar- May(Sep- Nov) | 4.2 | S3? | G4? |
| <u>Cornus canadensis</u> | bunchberry | Cornaceae | perennial rhizomatous herb | May-Jul | 2B.2 | S2 | G5 |
| <u>Cuscuta pacifica var.</u> <u>papillata</u> | Mendocino dodder | Convolvulaceae | annual vine (parasitic) | (Jun)Jul-Oct | 1B.2 | S1 | G5T1 |
| <u>Erigeron supplex</u> | supple daisy | Asteraceae | perennial herb | May-Jul | 1B.2 | S2 | G2 |
| <u>Erysimum</u> <u>concinnum</u> | bluff wallflower | Brassicaceae | annual / perennial herb | Feb-Jul | 1B.2 | S2 | G3 |
| <u>Erysimum menziesii</u> | Menzies' wallflower | Brassicaceae | perennial herb | Mar-Sep | 1B.1 | S1 | G1 |
| <u>Fritillaria roderickii</u> | Roderick's fritillary | Liliaceae | perennial bulbiferous herb | Mar-May | 1B.1 | S1 | G1Q |
| <u>Gilia capitata ssp.</u> <u>pacifica</u> | Pacific gilia | Polemoniaceae | annual herb | Apr-Aug | 1B.2 | S2 | G5T3 |
| <u>Gilia millefoliata</u> | dark-eyed gilia | Polemoniaceae | annual herb | Apr-Jul | 1B.2 | S2 | G2 |
| <u>Hemizonia congesta</u> <u>ssp. congesta</u> | congested- headed hayfield tarplant | Asteraceae | annual herb | Apr-Nov | 1B.2 | S2 | G5T2 |
| <u>Hesperevax</u> <u>sparsiflora var.</u> <u>brevifolia</u> | short-leaved evax | Asteraceae | annual herb | Mar-Jun | 1B.2 | S2 | G4T3 |
| <u>Hesperocyparis</u> <u>pygmaea</u> | pygmy cypress | Cupressaceae | perennial evergreen tree | | 1B.2 | S1 | G1 |
| <u>Horkelia marinensis</u> | Point Reyes horkelia | Rosaceae | perennial herb | May-Sep | 1B.2 | S2 | G2 |

| | | | | | | | |
|---|----------------------------|-----------------|--|-----------------------|------|------|------|
| <u>Hosackia gracilis</u> | harlequin lotus | Fabaceae | perennial rhizomatous herb | Mar-Jul | 4.2 | S3 | G3G4 |
| <u>Juncus supiniformis</u> | hair-leaved rush | Juncaceae | perennial rhizomatous herb | Apr-May(Jun-Jul) | 2B.2 | S1 | G5 |
| <u>Kopsiopsis hookeri</u> | small groundcone | Orobanchaceae | perennial rhizomatous herb (parasitic) | Apr-Aug | 2B.3 | S1S2 | G4? |
| <u>Lasthenia californica ssp. bakeri</u> | Baker's goldfields | Asteraceae | perennial herb | Apr-Oct | 1B.2 | S1 | G3T1 |
| <u>Lasthenia californica ssp. macrantha</u> | perennial goldfields | Asteraceae | perennial herb | Jan-Nov | 1B.2 | S2 | G3T2 |
| <u>Lathyrus palustris</u> | marsh pea | Fabaceae | perennial herb | Mar-Aug | 2B.2 | S2 | G5 |
| <u>Lilium maritimum</u> | coast lily | Liliaceae | perennial bulbiferous herb | May-Aug | 1B.1 | S2 | G2 |
| <u>Lilium rubescens</u> | redwood lily | Liliaceae | perennial bulbiferous herb | Apr-Aug(Sep) | 4.2 | S3 | G3 |
| <u>Lycopodium clavatum</u> | running-pine | Lycopodiaceae | perennial rhizomatous herb | Jun-Aug(Sep) | 4.1 | S3 | G5 |
| <u>Microseris borealis</u> | northern microseris | Asteraceae | perennial herb | Jun-Sep | 2B.1 | S1 | G5 |
| <u>Mitellastris caulescens</u> | leafy-stemmed mitrewort | Saxifragaceae | perennial rhizomatous herb | (Mar)Apr-Oct | 4.2 | S4 | G5 |
| <u>Packera bolanderi var. bolanderi</u> | seacoast ragwort | Asteraceae | perennial rhizomatous herb | (Jan-Apr)May-Jul(Aug) | 2B.2 | S2S3 | G4T4 |
| <u>Phacelia insularis var. continentis</u> | North Coast phacelia | Hydrophyllaceae | annual herb | Mar-May | 1B.2 | S2 | G2T2 |
| <u>Pinus contorta ssp. bolanderi</u> | Bolander's beach pine | Pinaceae | perennial evergreen tree | | 1B.2 | S2 | G5T2 |
| <u>Piperia candida</u> | white-flowered rein orchid | Orchidaceae | perennial herb | (Mar)May-Sep | 1B.2 | S3 | G3 |
| <u>Pityopus californicus</u> | California pinefoot | Ericaceae | perennial herb (achlorophyllous) | (Mar-Apr)May-Aug | 4.2 | S4 | G4G5 |
| <u>Pleuropogon refractus</u> | nodding semaphore grass | Poaceae | perennial rhizomatous herb | (Mar)Apr-Aug | 4.2 | S4 | G4 |
| <u>Puccinellia pumila</u> | dwarf alkali grass | Poaceae | perennial herb | Jul | 2B.2 | SH | G4? |
| <u>Ramalina thrausta</u> | angel's hair lichen | Ramalinaceae | fruticose lichen (epiphytic) | | 2B.1 | S2? | G5 |
| <u>Rhynchospora alba</u> | white beaked-rush | Cyperaceae | perennial rhizomatous herb | Jun-Aug | 2B.2 | S2 | G5 |
| <u>Sanguisorba officinalis</u> | great burnet | Rosaceae | perennial rhizomatous herb | Jul-Oct | 2B.2 | S2 | G5? |
| <u>Sidalcea calycosa ssp. rhizomata</u> | Point Reyes checkerbloom | Malvaceae | perennial rhizomatous herb | Apr-Sep | 1B.2 | S2 | G5T2 |
| <u>Sidalcea malachroides</u> | maple-leaved checkerbloom | Malvaceae | perennial herb | (Mar)Apr-Aug | 4.2 | S3 | G3 |
| | | Malvaceae | | | 1B.2 | S2 | G5T2 |

| | | | | | | | |
|--|-----------------------------|---------------|------------------------------|--------------|------|------|------|
| <u>Sidalcea malviflora ssp. patula</u> | Siskiyou checkerbloom | | perennial rhizomatous herb | (Apr)May-Aug | | | |
| <u>Sidalcea malviflora ssp. purpurea</u> | purple-stemmed checkerbloom | Malvaceae | perennial rhizomatous herb | May-Jun | 1B.2 | S1 | G5T1 |
| <u>Tiarella trifoliata var. trifoliata</u> | trifoliate laceflower | Saxifragaceae | perennial rhizomatous herb | (May)Jun-Aug | 3.2 | S2S3 | G5T5 |
| <u>Trifolium trichocalyx</u> | Monterey clover | Fabaceae | annual herb | Apr-Jun | 1B.1 | S1 | G1 |
| <u>Triquetrella californica</u> | coastal triquetrella | Pottiaceae | moss | | 1B.2 | S2 | G2 |
| <u>Usnea longissima</u> | Methuselah's beard lichen | Parmeliaceae | fruticose lichen (epiphytic) | | 4.2 | S4 | G4 |
| <u>Veratrum fimbriatum</u> | fringed false-hellebore | Melanthiaceae | perennial herb | Jul-Sep | 4.3 | S3 | G3 |
| <u>Viola palustris</u> | alpine marsh violet | Violaceae | perennial rhizomatous herb | Mar-Aug | 2B.2 | S1S2 | G5 |

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Table 2. CNDDDB Search Mendocino Quad

CALIFORNIA DEPARTMENT OF
FISH and WILDLIFE *RareFind*

Query Summary:
Quad **IS** (Mendocino (3912337))

[Print](#)
[Close](#)

CNDDDB Element Query Results

| Scientific Name | Common Name | Taxonomic Group | Element Code | Total Occs | Returned Occs | Federal Status | State Status | Global Rank | State Rank | CA Rare Plant Rank | Other Status | Habitats |
|---|-----------------------------|-----------------|--------------|------------|---------------|----------------|--------------|-------------|------------|--------------------|---|---|
| <i>Abronia umbellata</i> var. <i>breviflora</i> | pink sand-verbena | Dicots | PDNYC010N4 | 61 | 2 | None | None | G4G5T2 | S2 | 1B.1 | BLM_S-Sensitive | Coastal dunes |
| <i>Agrostis blasdalei</i> | Blasdale's bent grass | Monocots | PMPOA04060 | 62 | 3 | None | None | G2 | S2 | 1B.2 | BLM_S-Sensitive | Coastal bluff scrub, Coastal dunes, Coastal prairie |
| <i>Arborimus pomio</i> | Sonoma tree vole | Mammals | AMAFF23030 | 222 | 2 | None | None | G3 | S3 | null | CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened | North coast coniferous forest, Oldgrowth, Redwood |
| <i>Arctostaphylos nummularia</i> ssp. <i>mendocinoensis</i> | pygmy manzanita | Dicots | PDERI04280 | 7 | 3 | None | None | G3?T1 | S1 | 1B.2 | null | Closed-cone coniferous forest |
| <i>Ascaphus truei</i> | Pacific tailed frog | Amphibians | AAABA01010 | 491 | 6 | None | None | G4 | S3S4 | null | CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern | Aquatic, Klamath/North coast flowing waters, Lower montane coniferous forest, North coast coniferous forest, Redwood, Riparian forest |
| <i>Bombus caliginosus</i> | obscure bumble bee | Insects | IIHYM24380 | 181 | 1 | None | None | G4? | S1S2 | null | IUCN_VU-Vulnerable | null |
| <i>Bombus occidentalis</i> | western bumble bee | Insects | IIHYM24250 | 282 | 1 | None | None | G2G3 | S1 | null | USFS_S-Sensitive, XERCES_IM-Imperiled | null |
| <i>Brachyramphus marmoratus</i> | marbled murrelet | Birds | ABNNN06010 | 110 | 1 | Threatened | Endangered | G3G4 | S1 | null | CDF_S-Sensitive, IUCN_EN-Endangered, NABCI_RWL-Red Watch List | Lower montane coniferous forest, Oldgrowth, Redwood |
| <i>Calamagrostis crassiglumis</i> | Thurber's reed grass | Monocots | PMPOA17070 | 15 | 1 | None | None | G3Q | S2 | 2B.1 | null | Coastal scrub, Freshwater marsh, Marsh & swamp, Wetland |
| <i>Calileptoneta wapiti</i> | Mendocino leptonetid spider | Arachnids | ILARAU6040 | 2 | 1 | None | None | G1 | S1 | null | null | North coast coniferous forest |
| <i>Calystegia purpurata</i> ssp. <i>saxicola</i> | coastal bluff morning-glory | Dicots | PDCON040D2 | 42 | 2 | None | None | G4T2T3 | S2S3 | 1B.2 | null | Coastal bluff scrub, Coastal dunes, Coastal scrub, North coast coniferous forest |
| <i>Campanula californica</i> | swamp harebell | Dicots | PDCAM02060 | 139 | 8 | None | None | G3 | S3 | 1B.2 | BLM_S-Sensitive | Bog & fen, Closed-cone coniferous forest, Coastal prairie, Marsh & swamp, Meadow & seep, North coast coniferous forest, Wetland |

| | | | | | | | | | | | | |
|---------------------------------------|----------------------------|----------|------------|-----|----|------------|------------|------|------|------|---|---|
| Carex californica | California sedge | Monocots | PMCYP032D0 | 41 | 12 | None | None | G5 | S2 | 2B.3 | null | Bog & fen, Closed-cone coniferous forest, Coastal prairie, Freshwater marsh, Marsh & swamp, Meadow & seep, Wetland |
| Carex livida | livid sedge | Monocots | PMCYP037L0 | 1 | 1 | None | None | G5 | SH | 2A | null | Bog & fen, Wetland |
| Carex lyngbyei | Lyngbye's sedge | Monocots | PMCYP037Y0 | 29 | 2 | None | None | G5 | S3 | 2B.2 | null | Marsh & swamp, Wetland |
| Carex saliniformis | deceiving sedge | Monocots | PMCYP03BY0 | 18 | 2 | None | None | G2 | S2 | 1B.2 | null | Coastal prairie, Coastal scrub, Marsh & swamp, Meadow & seep, Wetland |
| Castilleja ambigua var. humboldtensis | Humboldt Bay owl's-clover | Dicots | PDSCR0D402 | 31 | 2 | None | None | G4T2 | S2 | 1B.2 | BLM_S-Sensitive | Marsh & swamp, Salt marsh, Wetland |
| Castilleja litoralis | Oregon coast paintbrush | Dicots | PDSCR0D012 | 39 | 1 | None | None | G3 | S3 | 2B.2 | null | Coastal bluff scrub, Coastal dunes, Coastal scrub |
| Castilleja mendocinensis | Mendocino Coast paintbrush | Dicots | PDSCR0D3N0 | 47 | 11 | None | None | G2 | S2 | 1B.2 | BLM_S-Sensitive | Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub |
| Chorizanthe howellii | Howell's spineflower | Dicots | PDPGN040C0 | 9 | 1 | Endangered | Threatened | G1 | S1 | 1B.2 | null | Coastal dunes, Coastal prairie, Coastal scrub |
| Coastal Brackish Marsh | Coastal Brackish Marsh | Marsh | CTT52200CA | 30 | 1 | None | None | G2 | S2.1 | null | null | Marsh & swamp, Wetland |
| Coptis laciniata | Oregon goldthread | Dicots | PDRAN0A020 | 122 | 1 | None | None | G4? | S3? | 4.2 | null | Meadow & seep, North coast coniferous forest, Wetland |
| Cornus canadensis | bunchberry | Dicots | PDCOR01040 | 11 | 1 | None | None | G5 | S2 | 2B.2 | null | Bog & fen, Meadow & seep, North coast coniferous forest |
| Corynorhinus townsendii | Townsend's big-eared bat | Mammals | AMACC08010 | 628 | 1 | None | None | G3G4 | S2 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority | Broadleaved upland forest, Chaparral, Chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, Lower montane coniferous forest, Meadow & seep, Mojavean desert scrub, Riparian forest, Riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, Upper montane coniferous forest, Valley & foothill grassland |
| Cuscuta pacifica var. papillata | Mendocino dodder | Dicots | PDCUS011A2 | 5 | 1 | None | None | G5T1 | S1 | 1B.2 | null | Coastal dunes |
| Erigeron supplex | supple daisy | Dicots | PDAST3M3Z0 | 21 | 4 | None | None | G2 | S2 | 1B.2 | null | Coastal bluff scrub, Coastal prairie |
| Erysimum concinnum | bluff wallflower | Dicots | PDBRA160E3 | 30 | 6 | None | None | G3 | S2 | 1B.2 | null | Coastal bluff scrub, Coastal dunes, Coastal prairie |

| | | | | | | | | | | | | |
|---|---|-------------|------------|----|----|------|------|------|------|------|---|---|
| <i>Fratercula cirrhata</i> | tufted puffin | Birds | ABNNN12010 | 17 | 2 | None | None | G5 | S1S2 | null | CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern | Protected deepwater coastal communities |
| <i>Gilia capitata</i> ssp. <i>pacifica</i> | Pacific gilia | Dicots | PDPLM040B6 | 83 | 1 | None | None | G5T3 | S2 | 1B.2 | null | Chaparral, Coastal bluff scrub, Coastal prairie, Valley & foothill grassland |
| <i>Gilia millefoliata</i> | dark-eyed gilia | Dicots | PDPLM04130 | 54 | 1 | None | None | G2 | S2 | 1B.2 | BLM_S- Sensitive | Coastal dunes |
| Grand Fir Forest | Grand Fir Forest | Forest | CTT82120CA | 9 | 1 | None | None | G1 | S1.1 | null | null | null |
| <i>Hesperovax sparsiflora</i> var. <i>brevifolia</i> | short-leaved evax | Dicots | PDASTE5011 | 56 | 3 | None | None | G4T3 | S2 | 1B.2 | BLM_S- Sensitive | Coastal bluff scrub, Coastal dunes, Coastal prairie |
| <i>Hesperocyparis pygmaea</i> | pygmy cypress | Gymnosperms | PGCUP04032 | 37 | 10 | None | None | G1 | S1 | 1B.2 | SB_RSABG- Rancho Santa Ana Botanic Garden | Closed-cone coniferous forest |
| <i>Juncus supiniformis</i> | hair-leaved rush | Monocots | PMJUN012R0 | 3 | 2 | None | None | G5 | S1 | 2B.2 | null | Bog & fen, Marsh & swamp, Wetland |
| <i>Lasthenia californica</i> ssp. <i>bakeri</i> | Baker's goldfields | Dicots | PDAST5L0C4 | 19 | 1 | None | None | G3T1 | S1 | 1B.2 | null | Closed-cone coniferous forest, Coastal scrub, Marsh & swamp, Meadow & seep |
| <i>Lasthenia californica</i> ssp. <i>macrantha</i> | perennial goldfields | Dicots | PDAST5L0C5 | 59 | 5 | None | None | G3T2 | S2 | 1B.2 | null | Coastal bluff scrub, Coastal dunes, Coastal scrub |
| <i>Lathyrus palustris</i> | marsh pea | Dicots | PDFAB250P0 | 13 | 1 | None | None | G5 | S2 | 2B.2 | null | Bog & fen, Coastal prairie, Coastal scrub, Lower montane coniferous forest, Marsh & swamp, North coast coniferous forest, Wetland |
| <i>Lilium maritimum</i> | coast lily | Monocots | PMLIL1A0C0 | 80 | 10 | None | None | G2 | S2 | 1B.1 | null | Broadleaved upland forest, Closed-cone coniferous forest, Coastal prairie, Coastal scrub, Marsh & swamp, North coast coniferous forest |
| Mendocino Pygmy Cypress Forest | Mendocino Pygmy Cypress Forest | Forest | CTT83161CA | 25 | 11 | None | None | G2 | S2.1 | null | null | Closed-cone coniferous forest |
| <i>Microseris borealis</i> | northern microseris | Dicots | PDAST6E030 | 3 | 1 | None | None | G5 | S1 | 2B.1 | null | Bog & fen, Lower montane coniferous forest, Meadow & seep, Wetland |
| <i>Mitellastris caulescens</i> | leafy- stemmed mitrewort | Dicots | PDSAX0N020 | 21 | 1 | None | None | G5 | S4 | 4.2 | null | Broadleaved upland forest, Lower montane coniferous forest, Meadow & seep, North coast coniferous forest |
| Northern Coastal Salt Marsh | Northern Coastal Salt Marsh | Marsh | CTT52110CA | 53 | 1 | None | None | G3 | S3.2 | null | null | Marsh & swamp, Wetland |
| <i>Oceanodroma homochroa</i> | ashy storm- petrel | Birds | ABNDC04030 | 21 | 1 | None | None | G2 | S2 | null | BLM_S- Sensitive, CDFW_SSC- Species of Special Concern, | Protected deepwater coastal communities |

| | | | | | | | | | | | | |
|---|-----------------------------------|-------------|------------|------|----|------------|-------------------------|------|------|------|---|---|
| | | | | | | | | | | | IUCN_EN- Endangered, NABCI_RWL- Red Watch List, USFWS_BCC- Birds of Conservation Concern | |
| Packera bolanderi var. bolanderi | seacoast ragwort | Dicots | PDAST8H0H1 | 70 | 3 | None | None | G4T4 | S2S3 | 2B.2 | null | Coastal scrub, North coast coniferous forest |
| Pandion haliaetus | osprey | Birds | ABNKC01010 | 500 | 1 | None | None | G5 | S4 | null | CDF_S- Sensitive, CDFW_WL- Watch List, IUCN_LC- Least Concern | Riparian forest |
| Phacelia insularis var. continentis | North Coast phacelia | Dicots | PDHYD0C2B1 | 15 | 1 | None | None | G2T2 | S2 | 1B.2 | null | Coastal bluff scrub, Coastal dunes |
| Pinus contorta ssp. bolanderi | Bolander's beach pine | Gymnosperms | PGPIN04081 | 28 | 14 | None | None | G5T2 | S2 | 1B.2 | null | Closed-cone coniferous forest |
| Plebejus idas lotis | lotis blue butterfly | Insects | IILEPG5013 | 1 | 1 | Endangered | None | G5TH | SH | null | XERCES_CI- Critically Imperiled | Bog & fen, Meadow & seep, Wetland |
| Progne subis | purple martin | Birds | ABPAU01010 | 71 | 1 | None | None | G5 | S3 | null | CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern | Broadleaved upland forest, Lower montane coniferous forest |
| Rana aurora | northern red- legged frog | Amphibians | AAABH01021 | 290 | 5 | None | None | G4 | S3 | null | CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern, USFS_S- Sensitive | Klamath/North coast flowing waters, Riparian forest, Riparian woodland |
| Rana boylei | foothill yellow-legged frog | Amphibians | AAABH01050 | 2379 | 2 | None | Candidate Threatened | G3 | S3 | null | BLM_S- Sensitive, CDFW_SSC- Species of Special Concern, IUCN_NT- Near Threatened, USFS_S- Sensitive | Aquatic, Chaparral, Cismontane woodland, Coastal scrub, Klamath/North coast flowing waters, Lower montane coniferous forest, Meadow & seep, Riparian forest, Riparian woodland, Sacramento/San Joaquin flowing waters |
| Rhyacotriton variegatus | southern torrent salamander | Amphibians | AAAAJ01020 | 415 | 3 | None | None | G3G4 | S2S3 | null | CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern, USFS_S- Sensitive | Lower montane coniferous forest, Oldgrowth, Redwood, Riparian forest |
| Sanguisorba officinalis | great burnet | Dicots | PDR0S1L060 | 22 | 1 | None | None | G5? | S2 | 2B.2 | null | Bog & fen, Broadleaved upland forest, Marsh & swamp, Meadow & seep, North coast coniferous forest, Riparian forest, Ultramafic, Wetland |
| Sidalcea malachroides | maple-leaved checkerbloom | Dicots | PDMAL110E0 | 136 | 1 | None | None | G3 | S3 | 4.2 | null | Broadleaved upland forest, Coastal prairie, Coastal scrub, North coast coniferous |

| | | | | | | | | | | | | |
|-------------------|------------------|------------|------------|-----|---|------|------|----|------|------|---|---|
| | | | | | | | | | | | | forest, Riparian forest |
| Sphagnum Bog | Sphagnum Bog | Marsh | CTT51110CA | 12 | 3 | None | None | G3 | S1.2 | null | null | Bog & fen, Wetland |
| Taricha rivularis | red-bellied newt | Amphibians | AAAAF02020 | 136 | 1 | None | None | G4 | S2 | null | CDFW_SSC- Species of Special Concern, IUCN_LC- Least Concern | Broadleaved upland forest, North coast coniferous forest, Redwood, Riparian forest, Riparian woodland |

Table 3. California Sensitive Natural Communities A partial list of vegetation alliances, those occurring in coastal Mendocino County, is derived from the California Department of Fish and Wildlife's "Sensitive Natural Communities," (2018) (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609&inline>).

| Scientific Name | Common Name | Global & State Rank |
|--|--|---------------------|
| Woodland and Forest Alliances and Stands | | |
| <i>Abies grandis</i> Alliance | Grand fir forest | G4 S2 |
| <i>Acer macrophyllum</i> Alliance | Bigleaf maple forest | G4 S3 |
| <i>Alnus rubra</i> Alliance | Red alder forest | G5 S4 |
| <i>Arbutus menziesii</i> Alliance | Madrone forest | G4 S3 |
| <i>Hesperocyparis pigmaea</i> Alliance | Mendocino pygmy cypress woodland | G2 S2 |
| <i>Hesperocyparis sargentii</i> Alliance | Sargent cypress woodland | G3 S3 |
| <i>Notholithocarpus densiflorus</i> Alliance | Tanoak forest | G4 S3 |
| <i>Picea sitchensis</i> Alliance | Sitka spruce forest | G5 S2 |
| <i>Pinus attenuata</i> Alliance | Knobcone pine forest | G4 S4 |
| <i>Pinus contorta</i> ssp. <i>contorta</i> Alliance | Beach pine forest | G5 S3 |
| <i>Pinus muricata</i> Alliance | Bishop pine forest | G3 S3 |
| <i>Pseudotsuga menziesii</i> Alliance | Douglas fir forest | G5 S4 |
| <i>Pseudotsuga menziesii</i> - <i>Lithocarpus densiflorus</i> Alliance | Douglas fir - tanoak forest | G4 S4 |
| <i>Salix laevigata</i> Alliance | Red willow thickets | G3 S3 |
| <i>Salix lucida</i> Alliance | Shining willow groves | G4 S3 |
| <i>Sequoia sempervirens</i> Alliance | Redwood forest | G3 S3 |
| <i>Tsuga heterophylla</i> Alliance | Western hemlock forest | G5 S2 |
| <i>Umbellularia californica</i> Alliance | California bay forest | G4 S3 |
| Shrubland Alliances and Stands | | |
| <i>Arctostaphylos</i> (<i>canescens</i> , <i>manzanita</i> , <i>stanfordiana</i>) Alliance | Hoary, common and Stanford manzanita chaparral | G3 S3 |
| <i>Arctostaphylos glandulosa</i> Alliance | Eastwood manzanita chaparral | G4 S4 |
| <i>Arctostaphylos</i> (<i>nummularia</i> , <i>sensitiva</i>) Alliance | Glossy leaf manzanita chaparral | G2 S2 |
| <i>Baccharis pilularis</i> Alliance | Coyote brush scrub | G5 S5 |

| | | |
|---|--|---------|
| <i>Broom (Cytisus scoparius and Others)</i> | Broom patches | |
| <i>Ceanothus cuneatus</i> Alliance | Wedge leaf ceanothus chaparral; Buck brush chaparral | G4 S4 |
| <i>Ceanothus thyrsiflorus</i> Alliance | Blue blossom chaparral | G4 S4 |
| <i>Chrysolepis chrysophylla</i> | Gloden chinquapin thickets | G2 S2 |
| <i>Corylus cornuta</i> var. <i>californica</i> Alliance | Hazelnut scrub | G3 S2? |
| <i>Frangula californica</i> Alliance | California coffee berry scrub | G4 S4 |
| <i>Garrya elliptica</i> Provisional Alliance | Coastal silk tassel scrub | G3? S3? |
| <i>Diplacis aurantiacus</i> Alliance | Bush monkeyflower scrub | G3 S3? |
| <i>Holodiscus discolor</i> Alliance | Ocean spray brush | G4 S3 |
| <i>Lupinus arboreus</i> scrub | Yellow bush lupine scrub | G4 S4 |
| <i>Morella californica</i> Alliance | Wax myrtle scrub | G3 S3 |
| <i>Rhododendron columbianum</i> Alliance | Western Labrador-tea thickets | G4 S2? |
| <i>Rhododendron occidentale</i> Provisional Alliance | Western azalea patches | G3 S2? |
| <i>Rosa californica</i> Alliance | California rose briar patches | G3 S3 |
| <i>Rubus (parviflorus, spectabilis, ursinus)</i> Alliance | Coastal brambles | G4 S3 |
| <i>Salix hookeriana</i> Alliance | Coastal dune willow thickets | G4 S3 |
| <i>Salix lasiolepis</i> Alliance | Arroyo willow thickets | G4 S4 |
| <i>Salix sitchensis</i> Alliance | Sitka willow thickets | G4 S3? |

| | | |
|---|---|---------|
| <i>Sphagnum Bog</i> | Sphagnum bog | G3 S1.2 |
| <i>Toxicodendron diversilobum</i> Alliance | Poison oak scrub | G4 S4 |
| Herbaceous Alliances and Stands | | |
| <i>Abronia latifolia</i> – <i>Ambrosia chamissonis</i> Alliance | Dune mat | G3 S3 |
| <i>Argentina egedii</i> Alliance | Pacific silverweed marshes | G4 S2 |
| <i>Bolboschoenus maritimus</i> Alliance | Salt marsh bulrush marshes | G4 S3 |
| <i>Bromus carinatus</i> – <i>Elymus glaucus</i> Alliance | California brome – blue wildrye prairie | G3 S3 |
| <i>Calamagrostis nutkaensis</i> Alliance | Pacific reed grass meadows | G4 S2 |
| <i>Camassia quamash</i> Alliance | Small camas meadows | G4? S3? |
| <i>Carex obnupta</i> Alliance | Slough sedge swards | G4 S3 |

| | | |
|---|---|---------|
| <i>Carex pansa</i> Alliance | Sand dune sedge swaths | G4? S3? |
| <i>Danthonia californica</i> Alliance | California oat grass prairie | G4 S3 |
| <i>Deschampsia caespitosa</i> Alliance | Tufted hair grass meadows | G5 S4? |
| <i>Distichlis spicata</i> Alliance | Salt grass flats | G5 S4 |
| <i>Eleocharis macrostachya</i> Alliance | Pale spike rush marshes | G4 S4 |
| <i>Elymus glaucus</i> Alliance | Blue wild rye meadows | G3? S3? |
| <i>Festuca rubra</i> Alliance | Red fescue grassland | G4 S3? |
| <i>Festuca idahoensis</i> Alliance | Idaho fescue grassland | G4 S3? |
| <i>Glyceria xoccidentalis</i> | Northwest manna grass marshes | G3? S3? |
| <i>Grindelia (stricta)</i> Provisional Alliance | Gum plant patches | G3? S3? |
| <i>Heterotheca (sessiflora)</i> Alliance | Goldenaster patches | G3 S3 |
| <i>Hordeum brachyantherum</i> Alliance | Meadow barley patches | G4 S3? |
| <i>Juncus articus</i> (var. <i>balticus</i> , <i>mexicanus</i>) | Baltic and Mexican rush marshes | G5 S4 |
| <i>Juncus effusus</i> Alliance | Soft rush marshes | G4 S4? |
| <i>Juncus (oxymeris, xiphioides)</i> Provisional Alliance | Iris-leaf rush seeps | G2? S2? |
| <i>Juncus lescurii</i> Alliance | Salt rush swales | G3 S2? |
| <i>Juncus patens</i> Provisional Alliance | Western rush marshes | G4? S4? |
| <i>Lasthenia californica</i> – <i>Plantage erecta</i> – <i>Vulpia microstachys</i> Alliance | California goldfields – dwarf plantain – small fescue flower fields | G4 S4 |
| <i>Leymus mollis</i> Alliance | Sea lyme grass patches | G4 S2 |
| <i>Leymus triticoides</i> Alliance | Creeping rye grass turfs | G5 S3 |
| <i>Mimulus (guttatus)</i> Alliance | Common monkey flower seeps | G4? S3? |
| <i>Nassella pulchra</i> Alliance | Purple needle grass grassland | G4 S3? |
| <i>Poa secunda</i> Alliance | Curley bluegrass grassland | G4 S3? |
| <i>Schoenoplectus acutus</i> Alliance | Hardstem bulrush marsh | G5 S4 |
| <i>Schoenoplectus californicus</i> Alliance | California bulrush marsh | G5 S4? |
| <i>Scirpus microcarpus</i> Alliance | Small-fruited bulrush marsh | G4 S2 |
| <i>Solidago canadensis</i> Provisional Alliance | Canada goldenrod patches | G4? S4? |
| <i>Woodwardia fimbriata</i> | Woodwardia thicket | G3 S3.2 |

| Aquatic Vegetation | | |
|--|----------------------------|--------|
| <i>Azolla (filiculoides, mexicana)</i> Provisional Alliance | Mosquito fern mats | G4 S4 |
| <i>Hydrocotyle (ranunculoides, umbellata)</i> Alliance | Mats of floating pennywort | G4 S3? |
| <i>Lemna (minor)</i> and Relatives Provisional Alliance | Duckweed blooms | G5 S4? |
| <i>Nuphar lutea</i> Provisional Alliance | Yellow pond-lily mats | G5 S3? |
| <i>Oenanthe sarmentosa</i> Alliance | Water-parsley marsh | G4 S2? |
| <i>Sarcocornia pacifica (Salicornia depressa)</i> Alliance | Pickleweed mats | G4 S3 |
| <i>Sparganium (angustifolium)</i> Alliance | Mats of bur-reed leaves | G4 S3? |
| <i>Typha (angustifolia, domingensis, latifolia)</i> Alliance | Cattail marshes | G5 S5 |

Appendix B: List of All Plant Species Documented in the Study Area

| GROUP | FAMILY | BINOMIAL | COMMON NAME | NATIVE |
|------------------|------------------|---|--|--------|
| FERNS AND ALLIES | | | | |
| | Dennstaedtiaceae | | | |
| | | <i>Pteridium aquilinum</i> var. <i>pubescens</i> | bracken; western bracken; hairy bracken fern | Y |
| | Dryopteridaceae | | | |
| | | <i>Athyrium filix-femina</i> var. <i>cyclosorum</i> | subarctic lady-fern; lady fern | Y |
| | | <i>Polystichum munitum</i> | western sword fern | Y |
| | Equisetaceae | | | |
| | | <i>Equisetum telmateia</i> ssp. <i>braunii</i> | giant horsetail | Y |
| GYMNOSPERMS | | | | |
| | Pinaceae | | | |
| | | <i>Abies grandis</i> | grand fir; lowland fir | Y |
| | | <i>Pinus muricata</i> | Bishop pine; prickly-cone pine; bull pine | Y |
| | | <i>Pseudotsuga menziesii</i> var. <i>menziesii</i> | Douglas fir | Y |
| | | <i>Tsuga heterophylla</i> | western hemlock | Y |
| DICOTS | | | | |
| | Anacardiaceae | | | |
| | | <i>Toxicodendron diversilobum</i> | poison oak | Y |
| | Apiaceae | | | |
| | | <i>Sanicula crassicaulis</i> | Pacific sanicle, gamble weed, Pacific blacksnakeroot | Y |
| | Aquifoliaceae | | | |
| | | <i>Ilex aquifolium</i> | English holly | N |
| | Araliaceae | | | |
| | | <i>Aralia californica</i> | elk clover, prairie sagewort, elk's clover, California spikenard | Y |
| | Asteraceae | | | |
| | | <i>Anaphalis margaritacea</i> | pearly everlasting | Y |
| | | <i>Anisocarpus madioides</i> | woodland madia | Y |
| | | <i>Baccharis pilularis</i> | coyote brush | Y |

| GROUP | FAMILY | BINOMIAL | COMMON NAME | NATIVE |
|-------|----------------|---|--|--------|
| | | <i>Bellis perennis</i> | English daisy | N |
| | | <i>Cirsium vulgare</i> | bull thistle | N |
| | | <i>Hypochaeris radicata</i> | rough cat's ear, hairy cat's ear | N |
| | | <i>Senecio glomeratus</i> | cut-leaved erechites, New Zealand fireweed | N |
| | | <i>Senecio jacobaea</i> | tansy ragwort | N |
| | | <i>Sonchus oleraceus</i> | common sow thistle | N |
| | Berberidaceae | | | |
| | | <i>Berberis aquifolium</i> | Oregon grape, holly leaf berberis | Y |
| | Betulaceae | | | |
| | | <i>Alnus rubra</i> | red alder, Oregon alder | Y |
| | Boraginaceae | | | |
| | | <i>Myosotis micrantha</i> | small-flowered forget-me-not | N |
| | Brassicaceae | | | |
| | | <i>Cardamine californica</i> | bitter cress, California toothwort, milk maids | Y |
| | Caprifoliaceae | | | |
| | | <i>Lonicera hispidula</i> | hairy honeysuckle | Y |
| | | <i>Sambucus racemosa</i> var. <i>racemosa</i> | red elderberry | Y |
| | Ericaceae | | | |
| | | <i>Arctostaphylos columbiana</i> | redwood manzanita, hairy manzanita | Y |
| | | <i>Gaultheria shallon</i> | salal | Y |
| | | <i>Rhododendron macrophyllum</i> | California rose-bay | Y |
| | | <i>Vaccinium ovatum</i> | California huckleberry | Y |
| | | <i>Vaccinium parvifolium</i> | red huckleberry | Y |
| | Fabaceae | | | |
| | | <i>Cytisus scoparius</i> | Scotch broom | N |
| | | <i>Genista monspessulana</i> | French broom | N |
| | | <i>Medicago polymorpha</i> | California burclover, Bur medic | N |
| | | <i>Trifolium dubium</i> | shamrock, Shamrock clover, Suckling clover | N |
| | | <i>Trifolium repens</i> | white clover | N |
| | | <i>Vicia sativa</i> ssp. <i>sativa</i> | spring vetch | N |

| GROUP | FAMILY | BINOMIAL | COMMON NAME | NATIVE |
|-------|-----------------|---|---|--------|
| | Fagaceae | | | |
| | | <i>Notholithocarpus densiflorus</i> var. <i>densiflorus</i> | tanoak | Y |
| | Grossulariaceae | | | |
| | | <i>Ribes menziesii</i> | canyon gooseberry | Y |
| | | <i>Ribes sanguineum</i> var. <i>glutinosum</i> | pink-flowering currant | Y |
| | Lamiaceae | | | |
| | | <i>Stachys ajugoides</i> | bugle hedge-nettle | Y |
| | Myricaceae | | | |
| | | <i>Morella californica</i> | wax-myrtle | Y |
| | Myrsinaceae | | | |
| | | <i>Lysimachia latifolia</i> | Pacific starflower | Y |
| | | <i>Lysimachia arvensis</i> | scarlet pimpernel, poor man's weathervane | N |
| | Oxalidaceae | | | |
| | | <i>Oxalis oregana</i> | redwood sorrel | Y |
| | Philadelphaceae | | | |
| | | <i>Whipplea modesta</i> | yerba de selva, modesty | Y |
| | Plantaginaceae | | | |
| | | <i>Digitalis purpurea</i> | purple foxglove | N |
| | | <i>Plantago lanceolata</i> | English plantain, ribwort, narrow leaved plantain, ribgrass | N |
| | | <i>Veronica americana</i> | American speedwell, American brooklime | Y |
| | Rhamnaceae | | | |
| | | <i>Frangula purshiana</i> | cascara sagrada, chittum, cascara buckthorn | Y |
| | Rosaceae | | | |
| | | <i>Rosa gymnocarpa</i> | wood rose | Y |
| | | <i>Rubus armeniacus</i> | Himalaya-berry, Himalayan blackberry | N |
| | | <i>Rubus parviflorus</i> | thimbleberry | Y |
| | | <i>Rubus spectabilis</i> | salmon berry | Y |
| | | <i>Rubus ursinus</i> | California blackberry | Y |

| GROUP | FAMILY | BINOMIAL | COMMON NAME | NATIVE |
|----------|---------------|---|--|--------|
| | Rubiaceae | | | |
| | | <i>Galium aparine</i> | common bedstraw; cleavers; goose-grass | Y |
| | Saxifragaceae | | | |
| | | <i>Heuchera micrantha</i> | crevice alumroot | Y |
| | | <i>Tiarella trifoliata</i> var. <i>unifoliata</i> | foamflower, sugar-scoops | Y |
| | Violaceae | | | |
| | | <i>Viola sempervirens</i> | evergreen violet, redwood violet | Y |
| MONOCOTS | | | | |
| | Iridaceae | | | |
| | | <i>Iris douglasiana</i> | Douglas' iris | Y |
| | Juncaceae | | | |
| | | <i>Luzula comosa</i> | hairy wood rush | Y |
| | Liliaceae | | | |
| | | <i>Disporum hookeri</i> | | Y |
| | | <i>Trillium ovatum</i> | western wakerobin | Y |
| | | <i>Veratrum fimbriatum</i> | fringed false-hellebore | Y |
| | Orchidaceae | | | |
| | | <i>Calypso bulbosa</i> | fairy slipper | Y |
| | | <i>Corallorhiza maculata</i> | spotted coralroot | Y |
| | | <i>Goodyera oblongifolia</i> | rattlesnake plantain | Y |
| | Poaceae | | | |
| | | <i>Agrostis stolonifera</i> | creeping bentgrass | N |
| | | <i>Aira caryophylla</i> | silver European hairgrass, hairgrass | N |
| | | <i>Anthoxanthum occidentale</i> | western sweetgrass; vanilla grass, California sweetgrass | Y |
| | | <i>Anthoxanthum odoratum</i> | sweet vernal grass | N |
| | | <i>Briza maxima</i> | big quaking grass; rattlesnake grass | N |
| | | <i>Bromus catharticus</i> | rescue grass | N |
| | | <i>Bromus laevipes</i> | Chinook brome, narrow flowered brome | Y |
| | | <i>Cortaderia jubata</i> | Andes grass | N |
| | | <i>Dactylis glomerata</i> | orchard-grass | N |

| GROUP | FAMILY | BINOMIAL | COMMON NAME | NATIVE |
|-------|--------|--|------------------------------------|--------|
| | | <i>Danthonia californica</i> | California oatgrass, wild oatgrass | Y |
| | | <i>Elymus glaucus</i> ssp. <i>glaucus</i> | blue wildrye; blue wild rye | Y |
| | | <i>Holcus lanatus</i> | common velvetgrass | N |
| | | <i>Hordeum murinum</i> ssp. <i>glaucum</i> | farmer's foxtail | N |
| | | <i>Poa kelloggii</i> | Kellogg's bluegrass | Y |

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Appendix D: Soil Report



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

Calypso Lane



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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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

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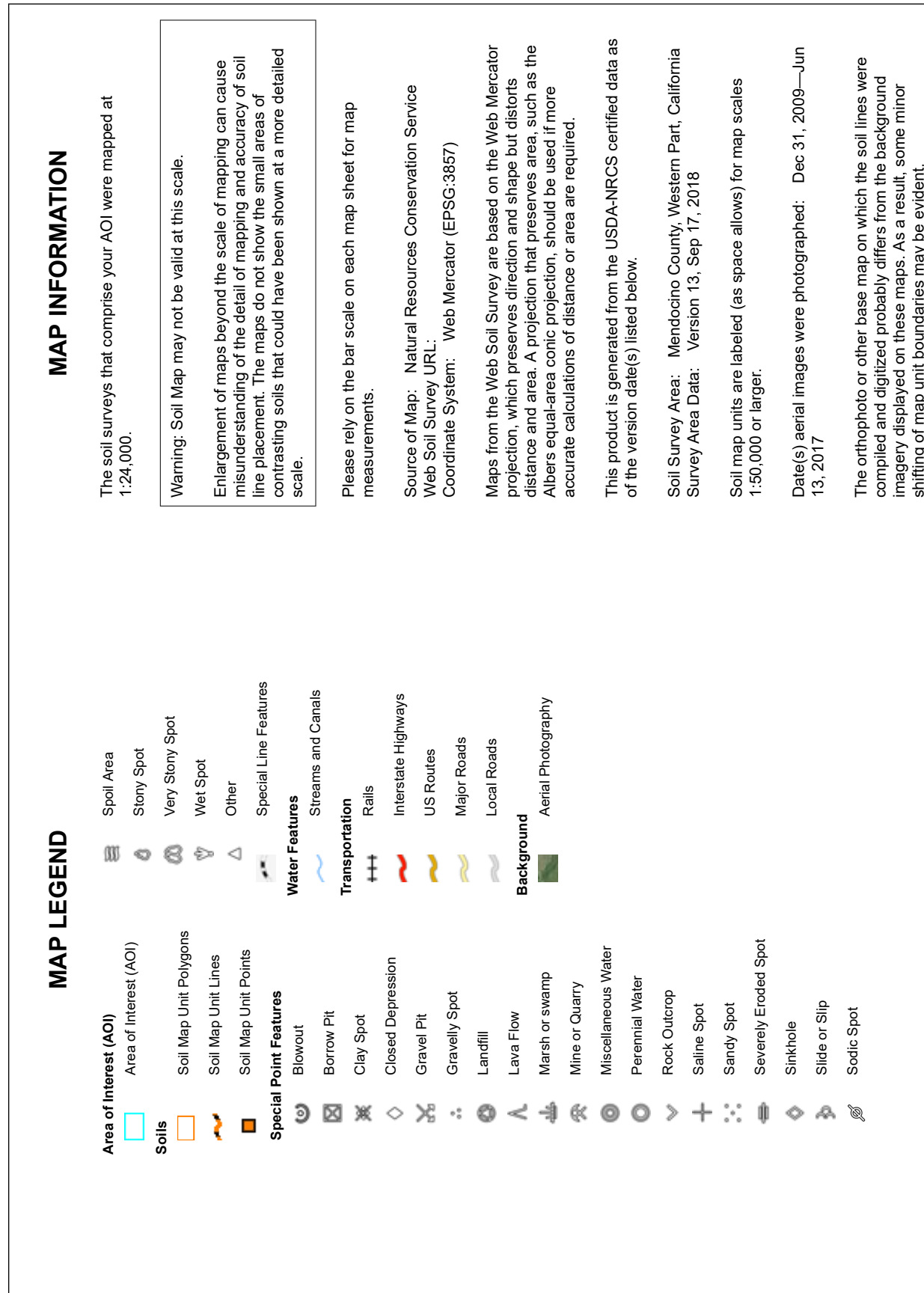
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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 Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------------|----------------|
| 199 | Shinglemill-Gibney complex, 2 to 9 percent slopes | 2.1 | 100.0% |
| Totals for Area of Interest | | 2.1 | 100.0% |

Map Unit Descriptions

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

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

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

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

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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**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

Description of Gibney**Setting**

Landform: Marine terraces

Custom Soil Resource Report

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

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BOTANICAL SURVEY

**FOR
10770 CALYPSO LANE
(A.P.N. 119-090-35)
MENDOCINO CALIFORNIA
MENDOCINO COUNTY**

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August 2006

RECEIVED

DEC 19 2018

PLANNING & BUILDING SERV
FORT BRAGG CA

APN 119-090-46

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CDP-2018-0012

SUMMARY

A survey on an approximately 7.5-acre parcel zoned rural-residential was conducted to locate rare plants, streams, and wetlands within the Project Site. An unpaved road and residence occur on the Project Site. Two small perennial streams occur on the parcel; no rare plants were detected during the surveys.

Development plans are submitted outside of all 100-foot ESHA buffers.

BACKGROUND / PROJECT DESCRIPTION

The botanical survey was conducted as a condition of the permit necessary to build within the Coastal Zone in Mendocino County. A building envelope was identified that was outside of any 100-foot buffer from an ESHA. Any building can occur outside of the 100-foot ESHA buffers.

The purpose of the study was to describe the existing vegetation communities, survey the parcel for special-status plant species, vegetation communities, stream, and wetlands, and recommend appropriate mitigation measures that help to reduce the impacts to wetland-, riparian-, and rare plant-buffers, which are considered Environmentally Sensitive Habitat Areas (ESHA's) under the Mendocino County Local Coastal Plan (Mendocino County, 1991).

PROJECT SITE DESCRIPTION

The Project Site is a 7.5-acre parcel zoned rural-residential east of Highway 1 and within the California Coastal Zone. It is located at located at 10770 Calypso Lane (A.P.N. 119-090-35) Mendocino, California. It occurs on portions of the NE ¼ of Section 29 and NW ¼ of Section 30, Township 17 N, Range 17 W of the Mount Diablo Base Meridian.

Soils are mapped as the Shinglemill-Gibney complex with 2 to 9% slopes (Natural Resource Conservation Service, 2001) neither soil is listed as a hydric soil (NRCS 1995). Topography is steep with few flat areas and most of the flat areas occur adjacent to the road.

Improvements to the Project Site include the existing roads and residence.

Vegetation on the site is predominantly a forest of mixed conifers such as grand fir (*Abies grandis*), Douglas-fir (*Pseudotsuga menziesii*), and bishop pine (*Pinus muricata*) with tan oak (*Lithocarpus densiflorus*). The building site is a small meadow of mostly exotic grasses. Perennial creeks occur on the southern and northern parcel boundaries.

METHODS

A field survey for botanical and wetland resources was conducted on the Project Site on May 15, June 12, July 15, and August 12, 2006. The survey protocol was based on Guidelines for Assessing the Effects of Proposed Developments on Rare, Threatened, and Endangered Plants and Plant Communities developed by James Nelson (CDFG 2000). The rare plants and plant communities considered in the survey are the native plants of limited abundance in California with known occurrence or distribution in Mendocino County, and were derived from the following lists:

May-Aug
2006

- species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act;
- species that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act;
- species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act;
- plants listed by the California Native Plant Society (CNPS) as "presumed extinct" in California (List 1A);
- plants considered by CNPS to be "rare, threatened, or endangered in California" (Lists 1B and 2);
- plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4), which may be included as special-status species on the basis of local significance or recent biological information;
- plants of regional or specific interest not on any list above.

These special-status plants were further segregated regionally based on known occurrence on the project area USGS 7.5' quadrangle (Mendocino) for the Study Area and the adjacent quadrangles (Fort Bragg, Noyo Hill, Mathison Peak, Elk, and Albion). The regional assessment utilized the California Native Plant Society's (CNPS) electronic inventory (CNPS 2006) and the California Department of Fish and Game's (CDFG), Natural Diversity Data Base Rare Find (CDFG 2006). These special-status species and all other species derived from the aforementioned lists, their associated habitats, and their potential for occurrence in the project area are listed in Table 1. Vegetation descriptions are based on Sawyer and Keeler-Wolf (1995), Holland (1986), and California Department of Fish and Game (2003).

BLOOMING PERIOD

A floristic and seasonally appropriate survey was conducted in the field at the time of year when rare, threatened, or endangered species are both evident and identifiable for all species expected to occur in the Study Area.

Table 1. Special-Status Plants of Potential Occurrence on the Project Site. This table is derived from federal, state, and CNPS-listed plant species, including plants of regional significance. Explanation of column headings:

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.

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.

CNDDB ELEMENT RANK

GRANK: 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 intractable due to being commonly found in the world.

SUBSPECIES LEVEL

Subspecies receive a T-rank attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety. For example: *Chorizanthe robusta* var. *hartwegii*. This plant is ranked G2T1. The G-rank refers to the whole species range i.e., *Chorizanthe robusta*. The T-rank refers only to the global condition of var. *hartwegii*.

Notes:

- 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.
- 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.

- Other symbols

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

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

GXC - Extinct in the wild; exists in cultivation.

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

T - Rank applies to a subspecies or variety.

A Threat Code extension has been added following the CNPS List (e.g. 1B.1, 2.2 etc.)

Threat Code extensions and their meanings:

- 1 - Seriously endangered in California
- 2 - Fairly endangered in California
- 3 - Not very endangered in California

SRANK: 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 intractable in California. NO THREAT RANK.

| TAXON | COMMON NAME | CNPS | FED | STATE | CNDDB ELEMENT RANK GRANK SRANK | HABITAT REQUIREMENTS | HABITAT IN PROJECT SITE |
|---|-----------------------------|------|-----|-------|--------------------------------------|---|-------------------------------|
| <i>Abrotia umbellata</i> ssp. <i>breviflora</i> | pink sand-verbena | 1B.1 | - | - | G4G4T2 S2.1 | coastal dunes | No |
| <i>Agrostis blanda</i> | Blasdale's bent grass | 1B.2 | - | - | G2 S2.2 | coastal bluff scrub, coastal dunes, coastal prairie | No |
| <i>Agrostis clivicola</i> var. <i>punta-reyesensis</i> | Point Reyes bent grass | NL | | | G3T1TQ S1.2 | coastal bluff. Endemic to Point Reyes Peninsula but known from two locations on near Stewart's Point | No |
| <i>Angelica lucida</i> | Sea-watch | 4.2 | - | - | G5 S2S3 | coastal bluffs, beaches | No |
| <i>Arctostaphylos canescens</i> ssp. <i>sonomensis</i> | Sonoma manzanita | 1B.2 | | | G3G4T2 S2.1 | chaparral, lower montane coniferous forest/sometimes serpentine. Inland from the coast. | No |
| <i>Arctostaphylos mendocinensis</i> | pygmy manzanita | 1B.2 | - | - | G1 S1? | closed cone coniferous forest (acidic sandy clay) | No |
| <i>Arctostaphylos stanfordiana</i> ssp. <i>raichei</i> | Raiche's manzanita | 1B.1 | | | G3T2? S2? | chaparral, lower montane coniferous forest (openings)/rocky, often serpentine. Inland from the coast. | No |
| <i>Astragalus agnicidus</i> | Humboldt milk-vetch | 1B.1 | - | - | G1 S1.1 | broadleaf upland forests, North Coast coniferous forests / disturbed areas | Marginal |
| <i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i> | coastal marsh milk-vetch | 1B.2 | - | - | G3T2 S2.2 | coastal dunes (mesic), marshes and swamps. | No |
| <i>Blennosperma nanum</i> var. <i>robustum</i> | Point Reyes blennosperma | 1B.2 | - | CR | G4T1 S1.2 | (coastal salt, and streamside) | No |
| <i>Boschniakia hookeri</i> | small groundcone | 2.3 | - | - | G5 S1S2 | coastal prairie, coastal scrub. Known only from Glass Beach, Fort Bragg on the Mendocino coast. | No |
| <i>Calamagrostis bolanderi</i> | Bolander's reed grass | 4.2 | - | - | G3 S3.2 | North Coast coniferous forest | Yes |
| | | | | | | bogs & fens, broadleaf upland forests, closed cone coniferous forest, coastal scrub, meadows (mesic), marshes & swamps (freshwater), North Coast coniferous forests / mesic | Yes |
| <i>Calamagrostis crassiglumis</i> | Thurber's reed grass | 2.1 | - | - | G3Q S1.2 | coastal scrub (mesic) | No |
| <i>Calamagrostis foliosa</i> | leafy reed grass | 4.2 | - | CR | G3 S3.2 | coastal bluff scrub, North Coast coniferous forest / rocky. Most occurrences from the King Range | No |
| <i>Calystegia purpurata</i> ssp. <i>saxicola</i> | coastal bluff morning-glory | 1B.2 | - | - | G4T2 S2.2 | coastal dunes, coastal scrub | No |
| <i>Campanula californica</i> | swamp harebell | 1B.2 | - | - | G3 S3.2 | bogs & fens, closed cone coniferous forest, coastal prairie, meadows, marshes & swamps (freshwater), North Coast coniferous forests / mesic | Yes |
| <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> | dissected-leaved toothwort | 3 | - | - | G7T3? S2S3 | chaparral, lower montane coniferous forest / usually serpentine, rocky. Above 700' | No |
| <i>Carex arca</i> | | 2.2 | | | G5 S1S2 | bogs and fens, North Coast coniferous forest (mesic) | Yes |
| <i>Carex californica</i> | California sedge | 2.3 | - | - | G5 S2? | bogs & fens, closed cone coniferous forest, coastal prairie, meadows, marshes & swamps (margins) | Yes |

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Botanical Report. 10770 Calypso Lane (A.P.N. 119-090-245) Mendocino, California
William N. S. August 2018

| TAXON | COMMON NAME | CNPS | FED | STATE | CNDDB ELEMENT RANK GRANK SRANK | HABITAT REQUIREMENTS | HABITAT IN PROJECT SITE |
|---|------------------------------|------|-----|-------|--------------------------------------|---|-------------------------------|
| <i>Carex lenticularis</i> var. <i>limnophila</i> | lakeshore sedge | 2.2 | | | G5T5 S1S2.2 | coastal swamps and bogs, North Coast coniferous forests (mesic) | Yes |
| <i>Carex livida</i> | livid sedge | 1A | - | - | G5 SH | bogs & fens | No |
| <i>Carex lyngbyei</i> | Lyngbye's sedge | 2.2 | - | - | G5 S2.2 | marshes & swamps (brackish or freshwater) | No |
| <i>Carex saliniformis</i> | deceiving sedge | 1B.2 | - | - | G2 S2.2 | coastal prairie, coastal scrub, meadows, marshes & swamps (coastal salt) / mesic | No |
| <i>Carex viridula</i> var. <i>viridula</i> | green sedge | 2.3 | - | - | G5T5 S1.3 | bogs & fens, marshes & swamps (freshwater). | Yes |
| <i>Castilleja affinis</i> ssp. <i>litoralis</i> | Oregon coast paintbrush | 2.2 | - | - | G4G5T4 S2.2 | North Coast coniferous forests (mesic) | No |
| <i>Castilleja ambigua</i> ssp. <i>humboldtensis</i> | Humboldt Bay owl's clover | 1B.2 | - | - | G4T2 S2.2 | coastal bluff scrub, coastal dunes, coastal marshes & swamps (coastal salt) | No |
| <i>Castilleja mendocinensis</i> | Mendocino coast paintbrush | 1B.2 | - | - | G2 S2.2 | coastal bluff scrub, closed cone coniferous forest, coastal dunes, coastal prairie, coastal scrub | No |
| <i>Ceanothus gloriosus</i> var. <i>exaltatus</i> | glory bush | 4.3 | - | - | G4T3 S3.3 | chaparral | Yes |
| <i>Ceanothus gloriosus</i> var. <i>gloriosus</i> | Point Reyes ceanothus | 4.3 | - | - | G5T3 S3.3 | coastal bluff scrub, closed cone coniferous forest, coastal dunes, coastal scrub / sandy | No |
| <i>Chorizanthe howellii</i> | Howell's spineflower | 1B.2 | FE | CT | G1 S1.2 | coastal dunes, coastal prairie, coastal scrub / sandy | No |
| <i>Clarkia amoena</i> ssp. <i>whitneyi</i> | Whitney's farewell-to-spring | 1B.1 | - | - | G5T2 S2.1 | coastal bluff scrub, coastal scrub | No |
| <i>Collinsia corymbosa</i> | round-headed Chinese houses | 1B.2 | - | - | G1 S1.2 | coastal dunes | No |
| <i>Cupressus goveniana</i> ssp. <i>pignata</i> | pygmy cypress | 1B.2 | - | - | G2T2 S2.2 | closed cone coniferous forest (podzol-like soil) | No |
| <i>Erigeron supplex</i> | supple daisy | 1B.2 | - | - | G1 S1.1 | coastal bluff scrub, coastal prairie | No |
| <i>Eriogonum kelloggii</i> | Kellogg's buckwheat | 1B.2 | - | - | G1 S1.2 | Inland from the coast. Most collections on Red Mountain where it is possibly endemic. | No |
| <i>Erythronium menziesii</i> ssp. <i>menziesii</i> | Menzies's wallflower | 1B.1 | FE | CE | G3T2 S2.1 | coastal dunes | No |
| <i>Erythronium revolutum</i> | coast fawn lily | 2.2 | - | - | G4 S2.2 | margins of swamps, bogs, or wooded streams, broadleaved upland forest, North Coast coniferous forest / mesic, streambanks | Marginal |
| <i>Fritillaria roderickii</i> | Roderick's fritillary | 1B.1 | - | CE | G1Q S1.1 | coastal bluff scrub, coastal prairie, valley & foothill grasslands | No |
| <i>Gilia capitata</i> ssp. <i>chamissonis</i> | dune gilia | 1B.1 | - | - | G5T2 S2.1 | coastal dunes, coastal scrub | No |
| <i>Gilia capitata</i> ssp. <i>pacifica</i> | Pacific gilia | 1B.2 | - | - | G5T3T4 S2.2? | coastal bluff scrub, coastal prairie | No |
| <i>Gilia capitata</i> ssp. <i>tomentosa</i> | wolly-headed gilia | 1B.1 | - | - | G5T1 S1.1 | Known from only three occurrences near Tomales and Salt Pt. SP. | No |
| <i>Gilia millefoliata</i> | dark-eyed gilia | 1B.2 | - | - | G2 S2.2 | coastal dunes | No |
| <i>Glyceria grandis</i> | American mana grass | 2.3 | - | - | G5 S1.3? | bogs and fens, meadows and seeps, marshes and swamps (streambanks and lake margins) | Marginal |

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Botanical Report, 10770 Calypso Lane (A.P.N. 119-090-35) Mendocino, California
William Arntsch, August 2006

| TAXON | COMMON NAME | CNPS | FED | STATE | CRDBB ELEMENT RANK | HABITAT REQUIREMENTS | HABITAT IN PROJECT SITE |
|--|-------------------------|------|-----|-------|-----------------------|---|-------------------------------|
| | | | | | GRANK SRANK | | |
| <i>Hemizonia congesta</i> ssp. <i>leucocephala</i> | Hayfield tarplant | 3 | - | - | G1T2T3 S2S3 | coastal scrub, valley and foothill grassland | No |
| <i>Hespererua sparsiflora</i> ssp. <i>brevifolia</i> | short-leaved evax | 2.2 | - | - | G4T3 S3.2 | coastal bluff scrub (sandy) | No |
| <i>Horkelia marinensis</i> | Point Reyes horkelia | 1B.2 | - | - | G2 S2.2 | coastal dunes, coastal prairie, coastal scrub / sandy | No |
| <i>Horkelia tenuiloba</i> | thin-lobed horkelia | 1B.2 | - | - | G2 S2.2 | broadleaved upland forest, chaparral/mesic openings, sandy | Yes |
| <i>Juncus supiniformis</i> | hair-leaved rush | 2.2 | - | - | G5 S2.2? | bogs & fens, marshes & swamps (freshwater) / near coast | No |
| <i>Lasthenia conjugens</i> | Contra Costa goldfields | 1B.1 | FE | - | G1 S1.1 | cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools/mesic | No |
| <i>Lasthenia macrantha</i> ssp. <i>bakeri</i> | Baker's goldfields | 1B.2 | - | - | G3TH SH | closed cone coniferous forest (openings), coastal scrub | Marginal |
| <i>Lasthenia macrantha</i> ssp. <i>macrantha</i> | perennial goldfields | 1B.2 | - | - | G3T2 S2.2 | coastal bluff scrub, coastal dunes, coastal scrub | No |
| <i>Lilium maritimum</i> | coast lily | 1B.1 | - | - | G2 S2.1 | broadleaf upland forests, closed cone coniferous forest, coastal prairie, coastal scrub, marshes & swamps (freshwater), North Coast coniferous forests | Yes |
| <i>Lotus formosissimus</i> | coastal lotus | 4.2 | - | - | G4 S3.2 | 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/wetlands, roadsides | Yes |
| <i>Lycopodium clavatum</i> | running-pine | 2.3 | - | - | G5 S2S3 | marshes & swamps, North Coast coniferous forests (mesic) | Yes |
| <i>Microseris borealis</i> | northern microseris | 2.1 | - | - | G4? S1.1 | bogs and fens, lower montane coniferous forest, meadows and seeps/mesic, 3000-6000' elevation | No |
| <i>Microseris paludosa</i> | microseris | 1B.2 | - | - | G2 S2.2 | closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. No specific locations for Mendocino County based on CNPS website. Mendocino County not suspected habitat based on range. | No |
| <i>Mitella caulescens</i> | leafy-stemmed mitrewort | 4.2 | - | - | G5 S4.2 | broadleaf upland forests, lower montane coniferous forests, meadows, North Coast coniferous forests / mesic | Yes |
| <i>Monotropa uniflora</i> | Indian pipe | 2.2 | - | - | G5 S2S3 | broadleaved upland forest, north Coast coniferous forest. Not known from Mendocino County. | No |
| <i>Phacelia inularis</i> var. <i>continentis</i> | North Coast phacelia | 1B.2 | - | - | G2T1 S1.2 | coastal bluff scrub, coastal dunes / sandy | No |
| <i>Pinus contorta</i> ssp. <i>bolanderi</i> | Bolander's beach pine | 1B.2 | - | - | G5T3 S3.2 | closed cone coniferous forest (podzol-like soil). Not found south of Cameron Ridge. | No |

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Botanical Report, 10770 Colby Lane (A.P.N. 119-090-35) Mendocino, California
William Altschul, August 2006

| TAXON | COMMON NAME | CNPS | FED | STATE | CNDDB ELEMENT RANK | HABITAT REQUIREMENTS | HABITAT IN PROJECT SITE |
|---|--------------------------------|------|-----|-------|-----------------------|----------------------|---|
| | | | | | GRANK | SRANK | |
| <i>Pleuropogon hooverianus</i> | North Coast semaphore grass | 1B.1 | - | CT | G1 | S1.1 | broadleafed upland forest, meadows and seeps, North Coast coniferous forest/open areas, mesic |
| <i>Pleuropogon refractus</i> | nodding semaphore grass | 4.2 | - | - | G4 | S3.2? | lower montane coniferous forests, meadows, North Coast coniferous forests, riparian forests / mesic |
| <i>Potentilla hickmanii</i> | Hickman's cinquefoil | 1B.1 | | | G1 | S1.1 | coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic), marshes and swamps (freshwater) |
| <i>Puccinellia pumila</i> | dwarf alkali grass | 2.2 | - | - | G4? | S1.1? | marshes & swamps (coastal salt) |
| <i>Rhynchospora alba</i> | white-beaked rush | 2.2 | - | - | G5 | S3.2 | bogs & fens, meadows, marshes & swamps (freshwater) |
| <i>Sanguisorba officinalis</i> | great burnet | 2.2 | - | - | G5? | S2.2 | bogs & fens, broadleaf upland forests, meadows, marshes & swamps, North Coast coniferous forests, riparian forests / often serpentine |
| <i>Senecio bolanderi</i> var. <i>bolanderi</i> | seacoast ragwort | 2.2 | - | - | G4T4 | S1.2 | coastal scrub, North Coast coniferous forests |
| <i>Sidalcea calycosa</i> ssp. <i>rhizomata</i> | Point Reyes checkerbloom | 1B.2 | - | - | G5T2 | S2.2 | marshes & swamps (freshwater, near coast) |
| <i>Sidalcea malachroides</i> | maple-leaved checkerbloom | 4.2 | - | - | G3 | S3.2 | broadleaf upland forests, coastal prairie, coastal scrub, North Coast coniferous forests / often disturbed areas |
| <i>Sidalcea malviflora</i> ssp. <i>patula</i> | Siskiyou checkerbloom | 1B.2 | | | G5T1 | S1.1 | coastal bluff scrub, coastal prairie, North Coast coniferous forest / often roadcuts. One collection 2 miles south of Albion in roadside ditch. |
| <i>Sidalcea malviflora</i> ssp. <i>purpurea</i> | purple-stemmed checkerbloom | 1B.2 | - | - | G5T2 | S2.2 | broadleaf upland forests, coastal prairie |
| <i>Triquetrella californica</i> | coastal triquetrella | 1B.2 | - | - | G1 | S1.2 | coastal bluff scrub, coastal scrub/soil |
| <i>Usnea longissima</i> | long-beard lichen | - | - | - | G1 | S1.1 | semi-open canopy forests, old-growth forests |
| <i>Veratrum fimbriatum</i> | fringed false- hellebore | 4.3 | - | - | G3 | S3.3 | bogs & fens, coastal scrub, meadows, North Coast coniferous forests (mesic) |
| <i>Viburnum ellipticum</i> | oval-leaved viburnum | 2.3 | | | G5 | S2.3 | chaparral, cismontane woodland, lower montane coniferous forest. Inland from the coast. |
| <i>Viola adunca</i> | dog violet | - | - | - | - | - | coastal prairie, meadows |
| <i>Viola palustris</i> | marsh violet | 2.2 | - | - | G5 | S1S2 | coastal scrub (mesic), bogs & fens (coastal) |

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Botanical Report, 10770 Calypso Lane (A.P.N. 119-090-35) Mendocino, California
William M. S. et al., August 2006

SURVEY RESULTS

DOCUMENTED SPECIES PRESENCE

The wetlands and species with regional known occurrence having potential habitat in the project site were surveyed for presence (Table 1). Species without potential habitat in the Project Site were considered, but surveys were focused on those with potential habitat. The survey results of detected special-status species were recorded (Table 2) and drawn on a map of the Project Site (Figure 1). Species that are listed in Table 1 but not below in Table 2 were not detected.

Table 2. Wetlands and Special-Status Plants Documented on the Project Site.

| SCIENTIFIC NAME | COMMON NAME | CNPS RANK | POPULATION SIZE |
|----------------------------|-------------|-----------|------------------|
| <i>Veratrum fimbriatum</i> | corn-lily | 4.3 | 5 individuals |
| - | creek | - | two small creeks |

Wetlands

Creeks – Two small creeks occur on the Project Site. The creek on the northern portion of the parcel has an incised channel about 15" wide and about 2' deep. A small amount of water was flowing during the time of the last survey. Vegetation along the creek had an open canopy of a few red alder (*Alnus rubra*) and tan oak (*Lithocarpus densiflorus*). The herbaceous layer along the creek was made up of sword fern (*Polystichum munitum*), horsetail (*Equisetum telmateia*), and sugar scoops (*Tiarella trifoliata* var. *unifoliata*).

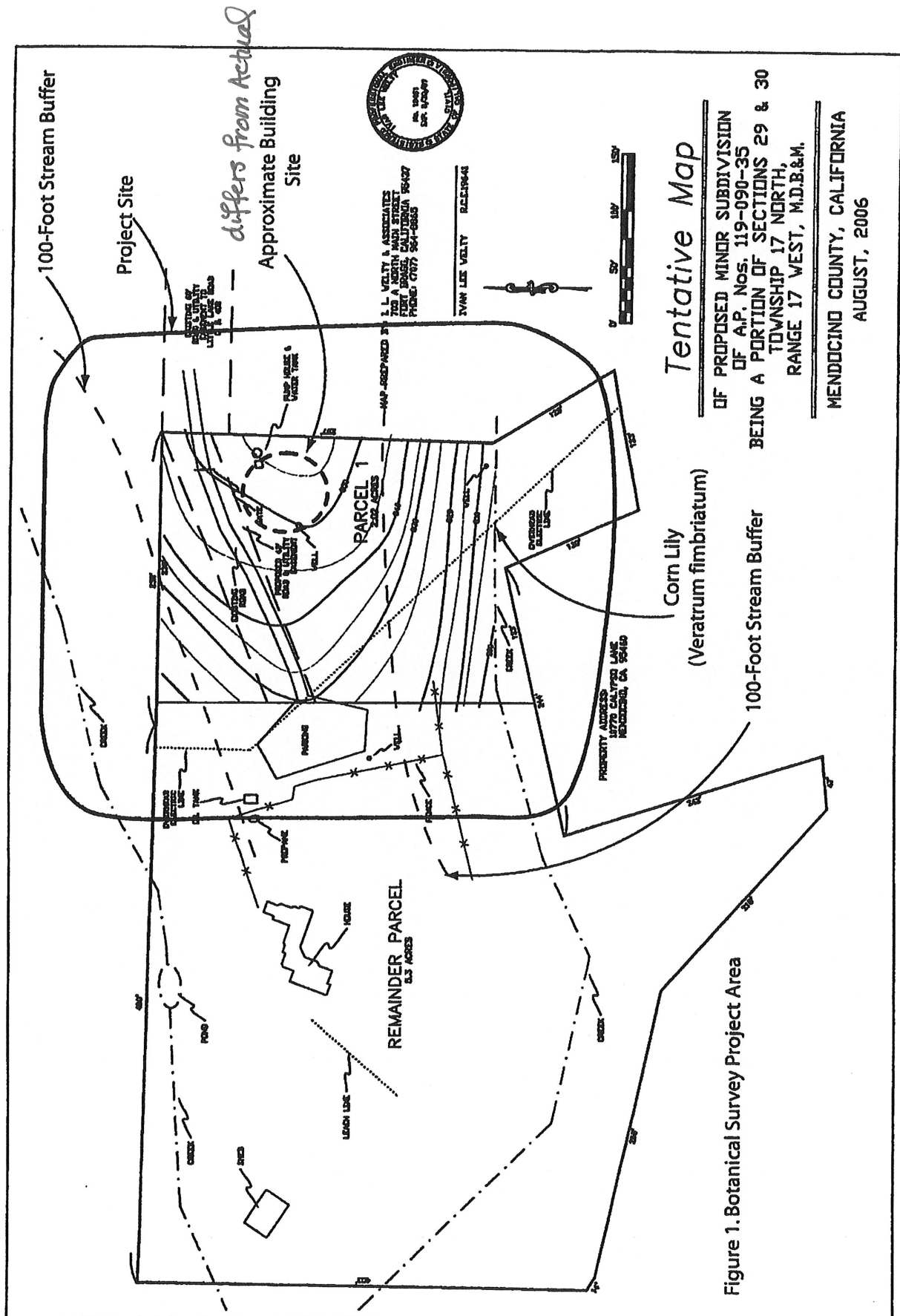
The creek on the southern portion of the parcel has a steeply incised channel about 1/5' wide and about 1.5' – 2.5'. The creek was flowing with a small amount of water at the time of the last survey, and several pools occur within the creekbed. Vegetation along the creek has a relatively closed canopy of grand fir (*Abies grandis*) tan oak, and Douglas fir (*Pseudotsuga menziesii*) with an understory of sword fern, thimbleberry (*Rubus parviflorus*), and lady fern (*Athyrium filix-femina*).

Veratrum fimbriatum – or corn-lily is a perennial plant with leaves that look like corn. It has large white blooms of many small flowers when the plants are growing in sufficient sunlight. It is always associated with wet areas such as moist soil in forests, wet meadow, and along streambanks.

This plant is not considered "rare" or "endangered", rather it is a special-status plant placed on a watch-list (CNPS, 2006). Nonetheless, the California Department of Fish and Game strongly recommends that plants on the CNPS List 3 and List 4 be considered in the environmental review process. No disturbance to the plants will occur because they occur in the creek that is over 100' from the proposed building envelope.

North Coast coniferous forest best describes the mix of conifers dominant on the building site. Douglas-fir, Bishop pine (*Pinus muricata*), grand fir, and tan oak occur on the site with an understory of sweet vernal grass (*Anthoxanthum odoratum*) and sword fern.

Building site – The building site is an old clearing along the road. The vegetation is primarily exotic grasses such as purple velvet grass (*Holcus lanatus*) and sweet vernal grass (*Anthoxanthum odoratum*) with patches of pampas grass (*Cortaderia jubata*) and thimbleberry.



FLORISTIC SURVEY

A floristic survey was completed for the surveyed area; all plants encountered were documented (Appendix A). Taxonomy follows Hickman (1993).

DISCUSSION and MITIGATION

The purpose of the survey was to identify a building envelope that does not occur within 100' of an ESHA. The proposed building site does not occur within an ESHA or a 100-foot buffer from an ESHA.

REFERENCES

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- California Department of Fish and Game, Wildlife and Habitat Data Analysis Branch (CDFG). May 2003 Edition. California Natural Diversity Database, List of California Terrestrial Natural Communities Recognized by The California Natural Diversity Database.
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- Natural Resource Conservation Service. 2001. Mendocino County Soil Survey, Western Part.
- US Geological Survey. Mendocino 7.5 minute topographic quadrangle.

APPENDIX**Appendix A. List of Plant Species Documented in the Study Area.**

Appendix A. List of Plant Species Documented in the Study Area.

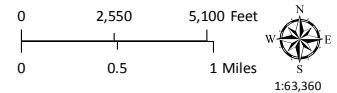
| GROUP | FAMILY | SCIENTIFIC NAME | COMMON NAME | NATIVE |
|-------------------------|-----------------|--|----------------------------------|--------|
| FERNS AND ALLIES | | | | |
| | Dryopteridaceae | | | |
| | | <i>Athyrium filix-femina</i> var. <i>cyclosorum</i> | lady fern | Y |
| | | <i>Polystichum munitum</i> | western sword fern | Y |
| | Equisetaceae | | | |
| | | <i>Equisetum telmateia</i> ssp. <i>braunii</i> | giant horsetail | Y |
| GYMNOSPERMS | | | | |
| | Pinaceae | | | |
| | | <i>Abies grandis</i> | grand fir; lowland fir | Y |
| | | <i>Pinus muricata</i> | bishop pine; prickly-cone pine | Y |
| | | <i>Tsuga heterophylla</i> | western hemlock | Y |
| DICOTS | | | | |
| | Anacardiaceae | | | |
| | | <i>Toxicodendron diversilobum</i> | poison oak | Y |
| | Apiaceae | | | |
| | | <i>Sanicula crassicaulis</i> | Pacific sanicle, Gamble Weed | Y |
| | Asteraceae | | | |
| | | <i>Cirsium vulgare</i> | bull thistle | N |
| | | <i>Erechtites glomerata</i> | New Zealand fireweed | N |
| | | <i>Gnaphalium purpureum</i> | purple everlasting | Y |
| | | <i>Hypochaeris radicata</i> | rough cat's ear, hairy cat's ear | N |
| | | <i>Madia nudiflora</i> | woodland madia | Y |
| | | <i>Senecio jacobaea</i> | tansy ragwort | N |
| | | <i>Sonchus oleraceus</i> | common sow thistle | N |
| | Berberidaceae | | | |
| | | <i>Berberis aquifolium</i> | Oregon grape | Y |
| | Betulaceae | | | |
| | | <i>Alnus rubra</i> | red alder | Y |
| | Caprifoliaceae | | | |
| | | <i>Lonicera hispidula</i> var. <i>vacillans</i> | hairy honeysuckle | Y |
| | | <i>Sambucus racemosa</i> var. <i>racemosa</i> | red elderberry | Y |
| | Ericaceae | | | |
| | | <i>Gaultheria shallon</i> | salal | Y |
| | | <i>Rhododendron macrophyllum</i> | California rose-bay | Y |
| | | <i>Vaccinium ovatum</i> | California huckleberry | Y |
| | | <i>Vaccinium parvifolium</i> | red huckleberry | Y |
| | Fabaceae | | | |
| | | <i>Cytisus scoparius</i> | Scotch broom | N |
| | | <i>Medicago polymorpha</i> | California burclover | N |
| | | <i>Trifolium dubium</i> | shamrock | N |
| | | <i>Trifolium repens</i> | white clover | N |
| | | <i>Vicia sativa</i> ssp. <i>sativa</i> | spring vetch | N |
| | Fagaceae | | | |
| | | <i>Lithocarpus densiflorus</i> var. <i>densiflorus</i> | tanoak | Y |
| | Grossulariaceae | | | |
| | | <i>Ribes menziesii</i> | canyon gooseberry | Y |

| GROUP | FAMILY | SCIENTIFIC NAME | COMMON NAME | NATIVE |
|----------|------------------|---|-----------------------------|--------|
| | Myricaceae | | | |
| | | <i>Myrica californica</i> | wax-myrtle | Y |
| | Oxalidaceae | | | |
| | | <i>Oxalis oregana</i> | redwood sorrel | Y |
| | Philadelphaceae | | | |
| | | <i>Whipplea modesta</i> | yerba de selva | Y |
| | Primulaceae | | | |
| | | <i>Tricentalis latifolia</i> | woodland star | Y |
| | Rosaceae | | | |
| | | <i>Rosa gymnocarpa</i> | wood rose | Y |
| | | <i>Rubus discolor</i> | Himalaya-berry | N |
| | | <i>Rubus parviflorus</i> | thimbleberry | Y |
| | | <i>Rubus spectabilis</i> | salmon berry | Y |
| | | <i>Rubus ursinus</i> | California blackberry | Y |
| | Rubiaceae | | | |
| | | <i>Galium aparine</i> | common bedstraw | Y |
| | Saxifragaceae | | | |
| | | <i>Tiarella trifoliata</i> var. <i>unifoliata</i> | foamflower, sugar-scoops | Y |
| | Scrophulariaceae | | | |
| | | <i>Digitalis purpurea</i> | purple foxglove | N |
| | Violaceae | | | |
| | | <i>Viola sempervirens</i> | redwood violet | Y |
| MONOCOTS | | | | |
| | Liliaceae | | | |
| | | <i>Disporum hookeri</i> | | Y |
| | | <i>Trillium ovatum</i> | western wakerobin | Y |
| | | <i>Veratrum fimbriatum</i> | fringed false-hellebore | Y |
| | Orchidaceae | | | |
| | | <i>Calypso bulbosa</i> | fairy slipper | Y |
| | | <i>Corallorhiza maculata</i> | spotted coralroot | Y |
| | | <i>Goodyera oblongifolia</i> | rattlesnake plantain | Y |
| | Poaceae | | | |
| | | <i>Aira caryophylla</i> | silver European hairgrass | N |
| | | <i>Anthoxanthum odoratum</i> | sweet vernal grass | N |
| | | <i>Briza maxima</i> | rattlesnake grass | N |
| | | <i>Briza minor</i> | little quaking grass | N |
| | | <i>Bromus levipes</i> | | Y |
| | | <i>Cortaderia jubata</i> | Andes grass | N |
| | | <i>Elymus glaucus</i> ssp. <i>glaucus</i> | blue wildrye; blue wild rye | Y |
| | | <i>Hierochloa occidentalis</i> | western sweetgrass | Y |
| | | <i>Holcus lanatus</i> | common velvetgrass | N |
| | | <i>Lolium multiflorum</i> | Italian ryegrass | N |
| | | <i>Poa kelloggii</i> | Kellogg's bluegrass | Y |



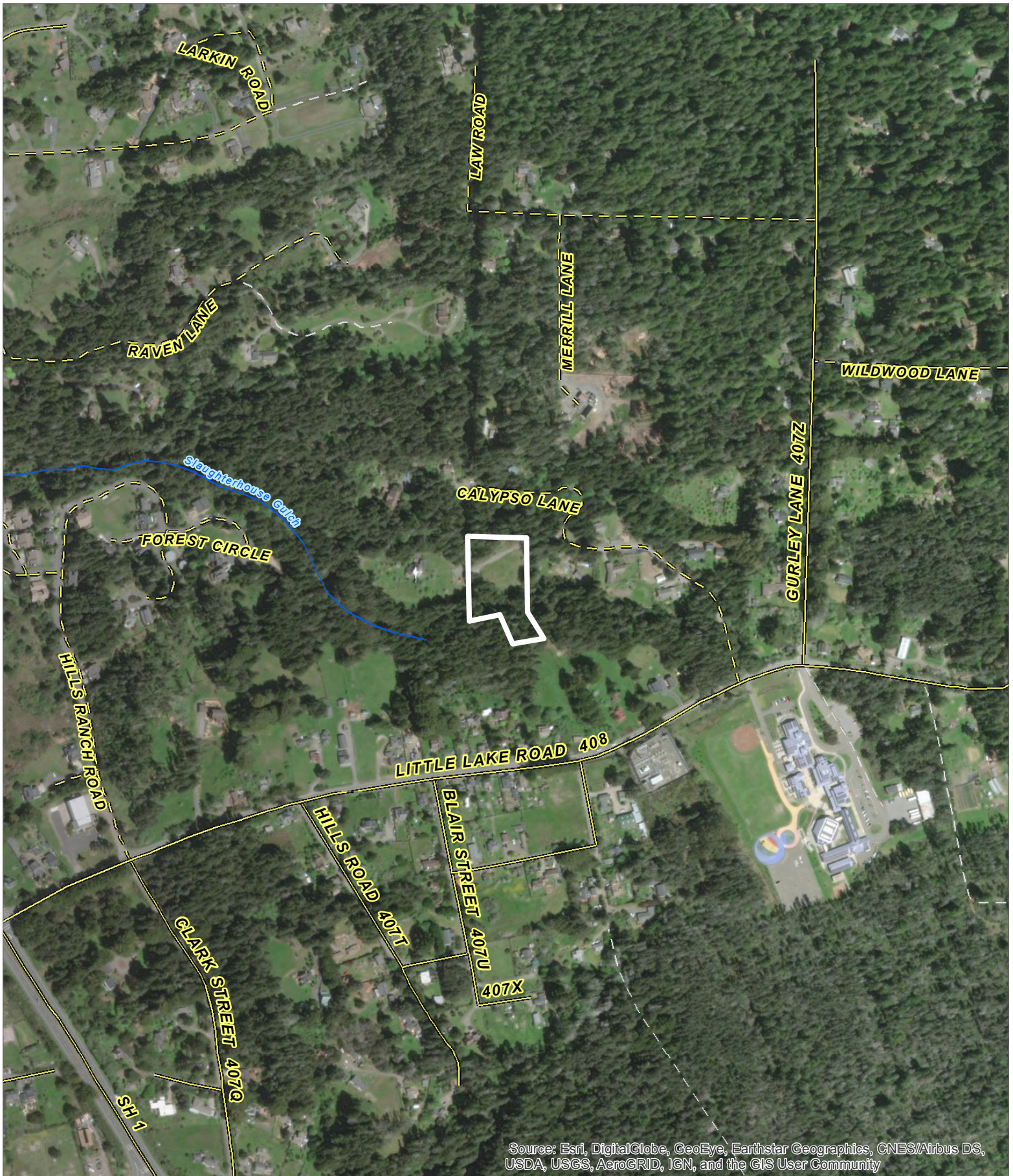
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 OWNER: SHEPPARD, Noah & Zoe
 APN: 119-090-46
 APLCT: Noah Sheppard
 AGENT:
 ADDRESS: 10760 Calypso Lane, Mendocino

- Major Towns & Places
- Major Roads
- Major Rivers
- Highways



LOCATION MAP

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 DO NOT USE THIS MAP TO DETERMINE LEGAL PROPERTY BOUNDARIES



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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OWNER: SHEPPARD, Noah & Zoe

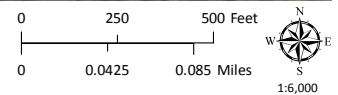
APN: 119-090-46

APLCT: Noah Sheppard

AGENT:

ADDRESS: 10760 Calypso Lane, Mendocino

- Named Rivers
- Driveways/Unnamed Roads
- Public Roads
- Private Roads



AERIAL IMAGERY

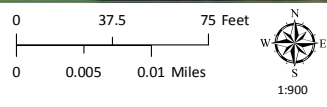
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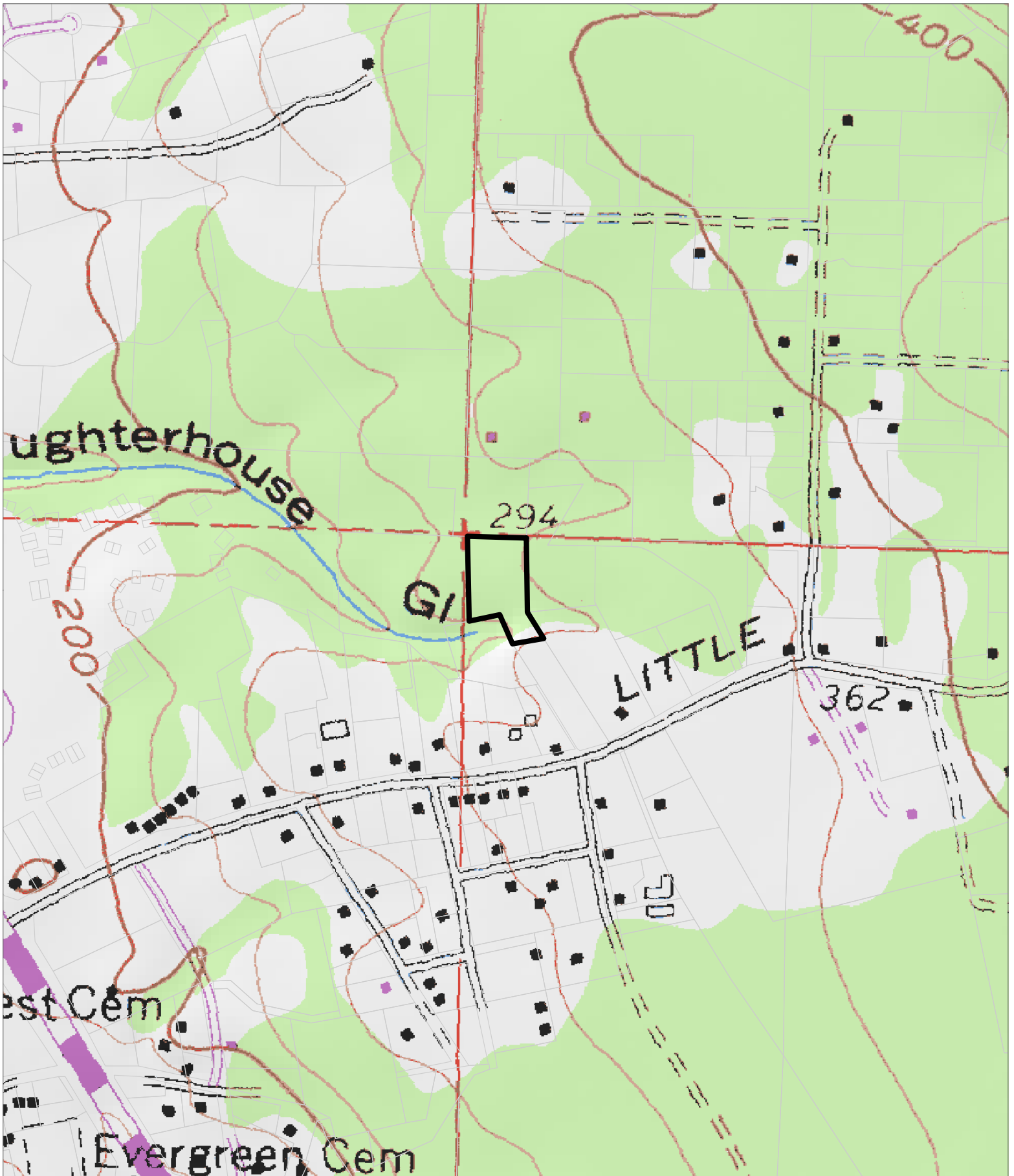
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OWNER: SHEPPARD, Noah & Zoe
APN: 119-090-46
APLCT: Noah Sheppard
AGENT:
ADDRESS: 10760 Calypso Lane, Mendocino

== Private Roads

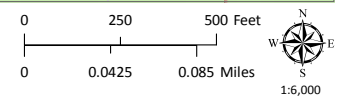


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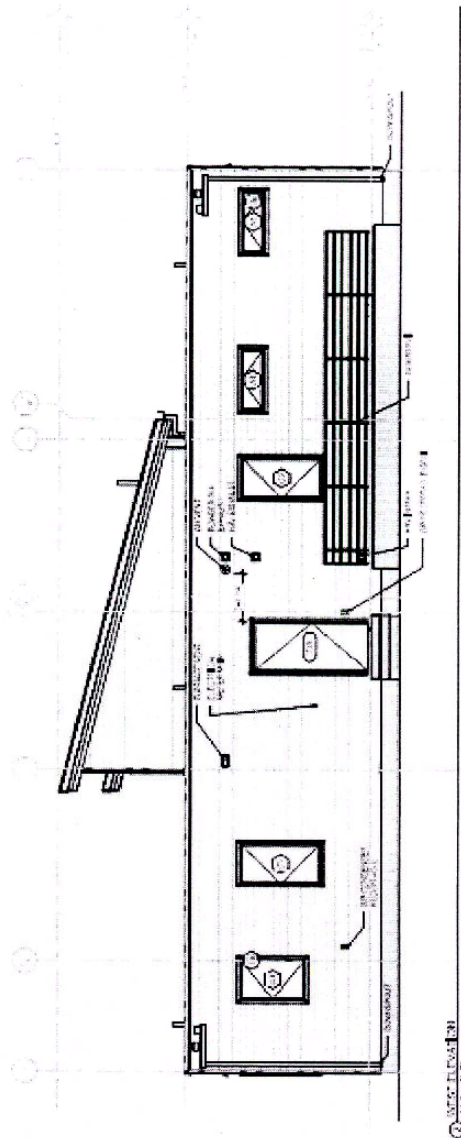
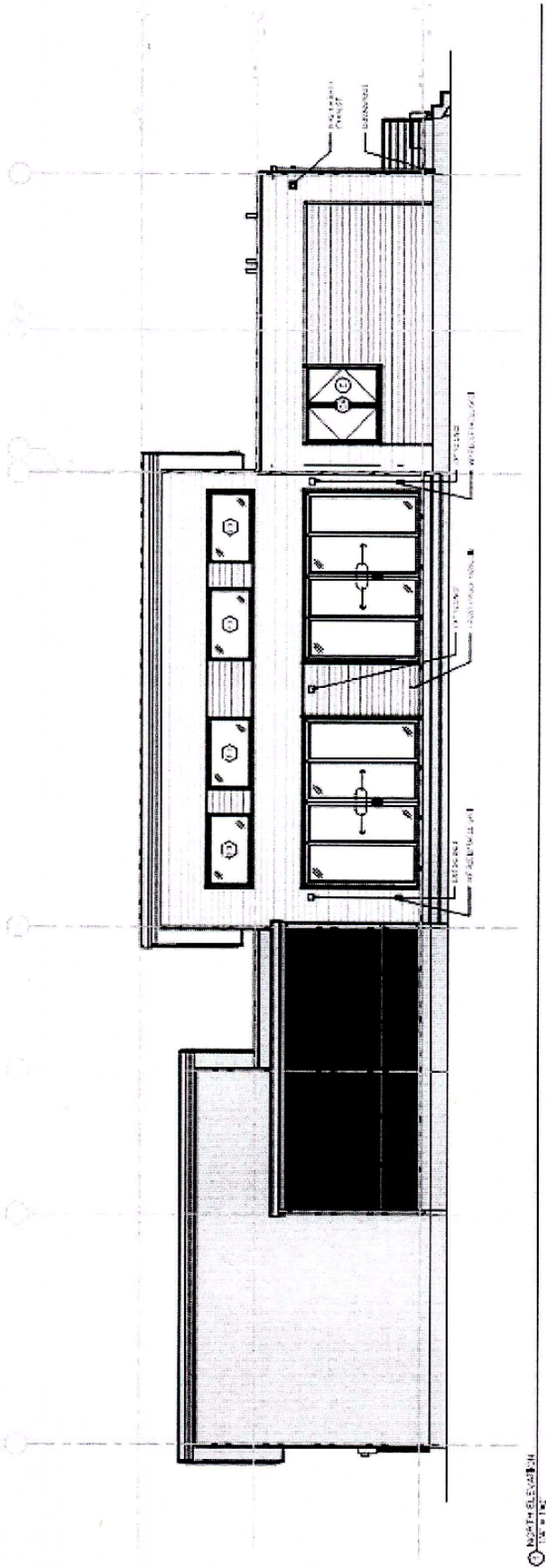


CASE: CDP 2018-0012
OWNER: SHEPPARD, Noah & Zoe
APN: 119-090-46
APLCT: Noah Sheppard
AGENT:
ADDRESS: 10760 Calypso Lane, Mendocino



TOPOGRAPHIC MAP
CONTOUR INTERVAL IS 40 FEET

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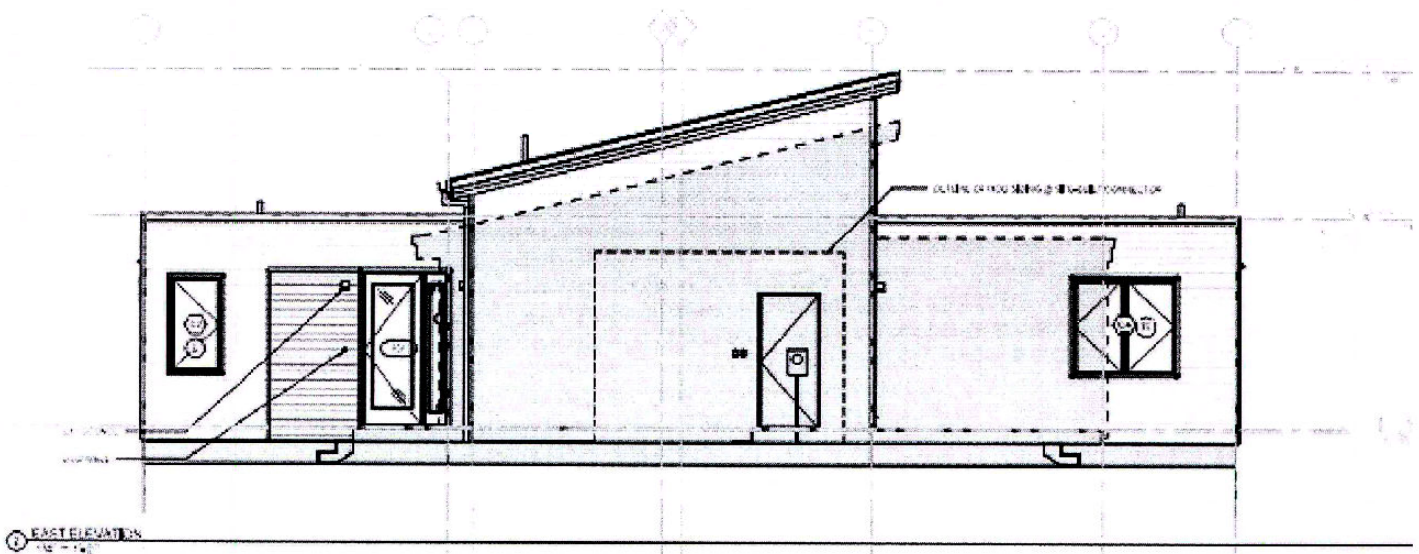
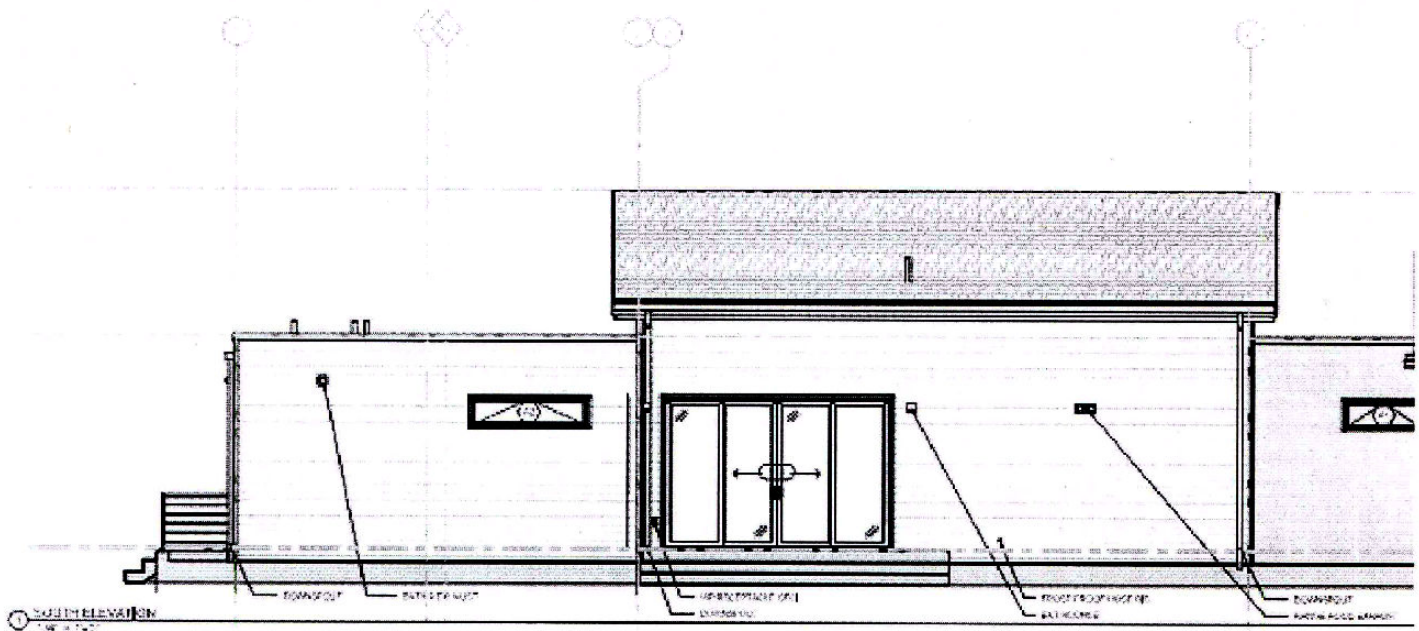


CASE: CDP 2018-0012
 OWNER: SHEPPARD, Noah & Zoe
 APN: 119-090-46
 APLCT: Noah Sheppard
 AGENT:
 ADDRESS: 10760 Calypso Lane, Mendocino

NO SCALE

ELEVATIONS

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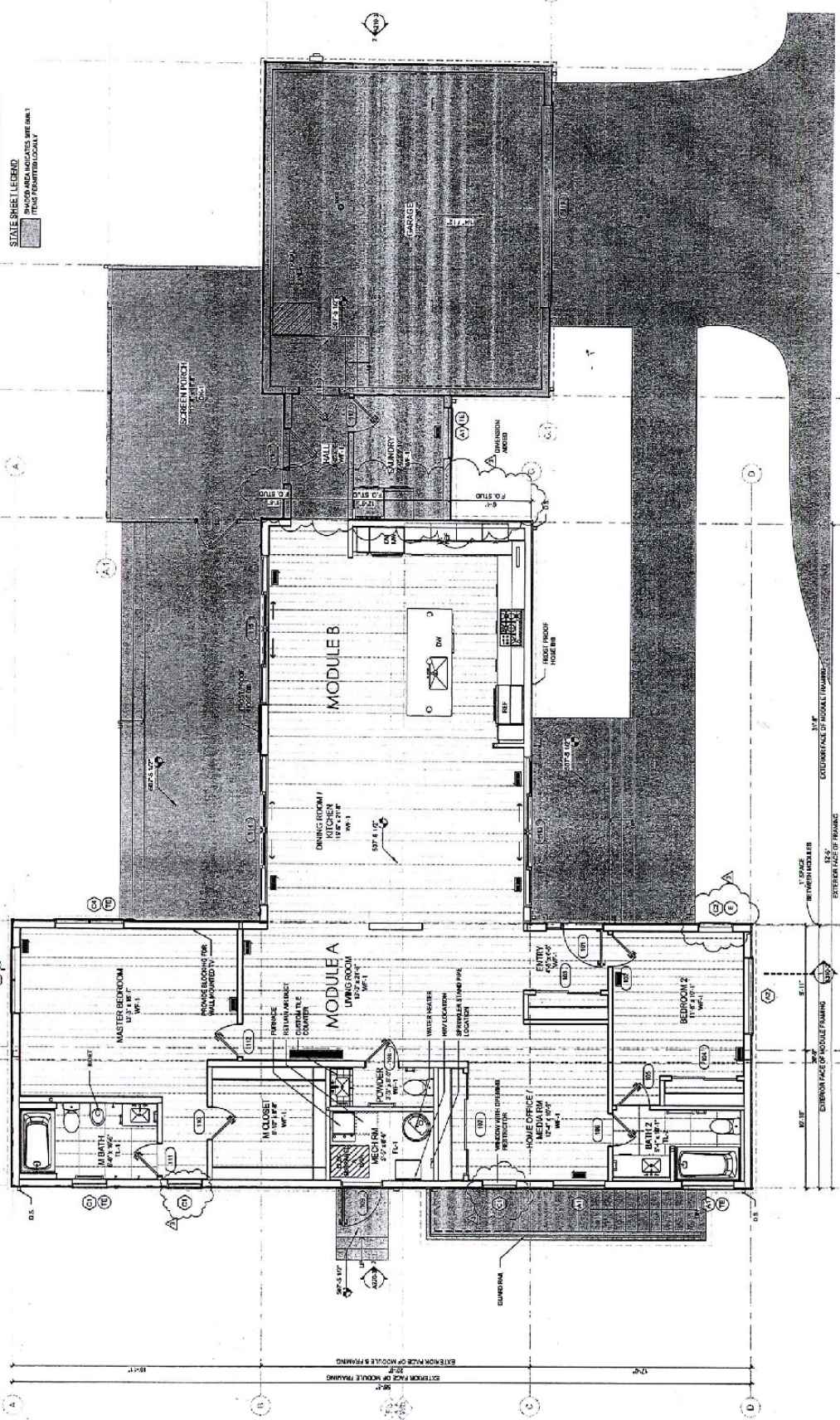
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 APLCT: Noah Sheppard
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 ADDRESS: 10760 Calypso Lane, Mendocino

NO SCALE

ELEVATIONS

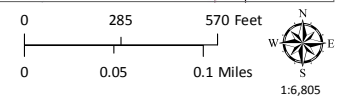
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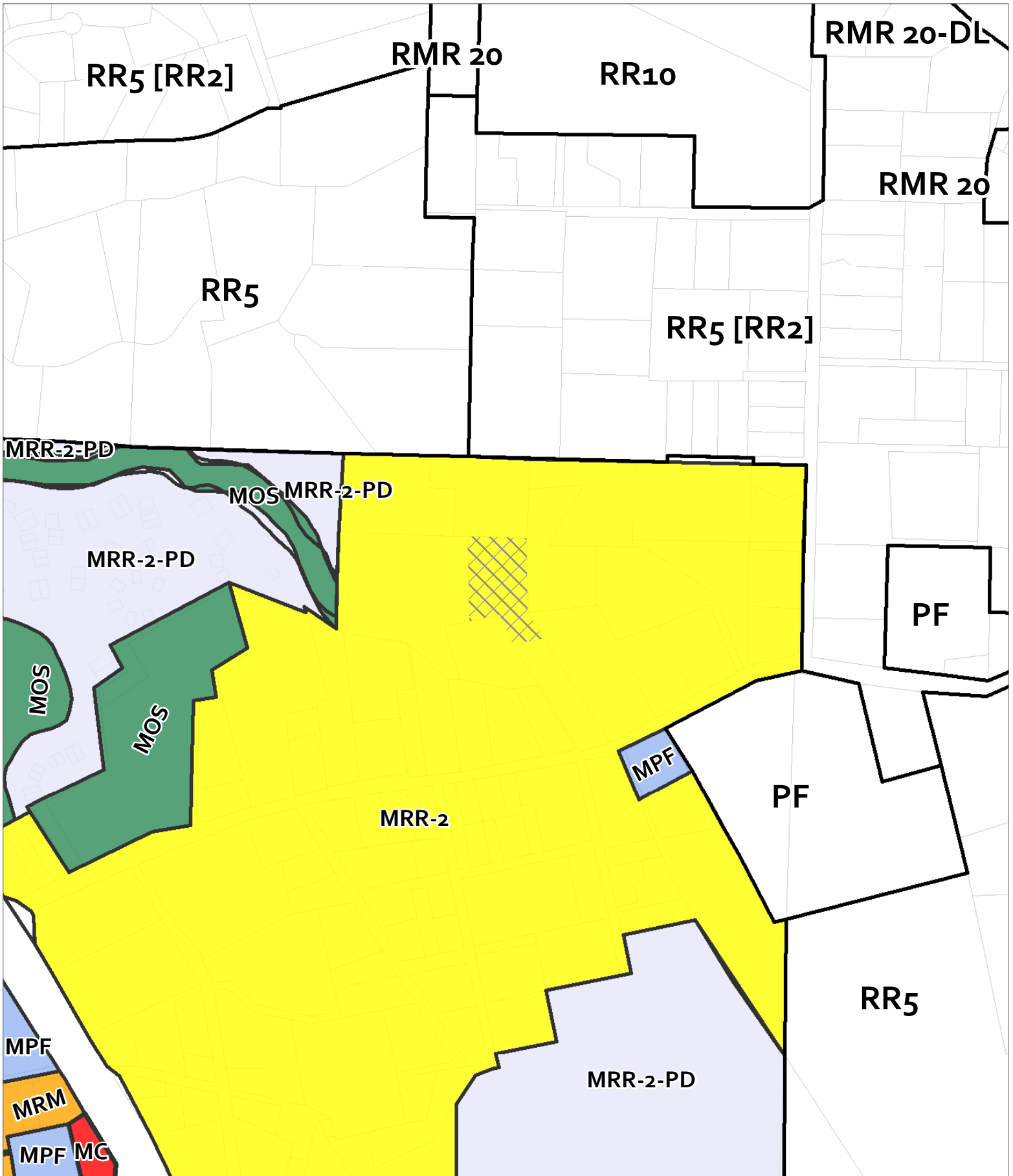
1 ENTRY LEVEL PLAN
 1/4" = 1'-0"

CASE: CDP 2018-0012
 OWNER: SHEPPARD, Noah & Zoe
 APN: 119-090-46
 APLCT: Noah Sheppard
 AGENT:
 ADDRESS: 10760 Calypso Lane, Mendocino




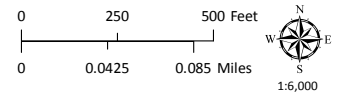
FIRST FLOOR PLAN

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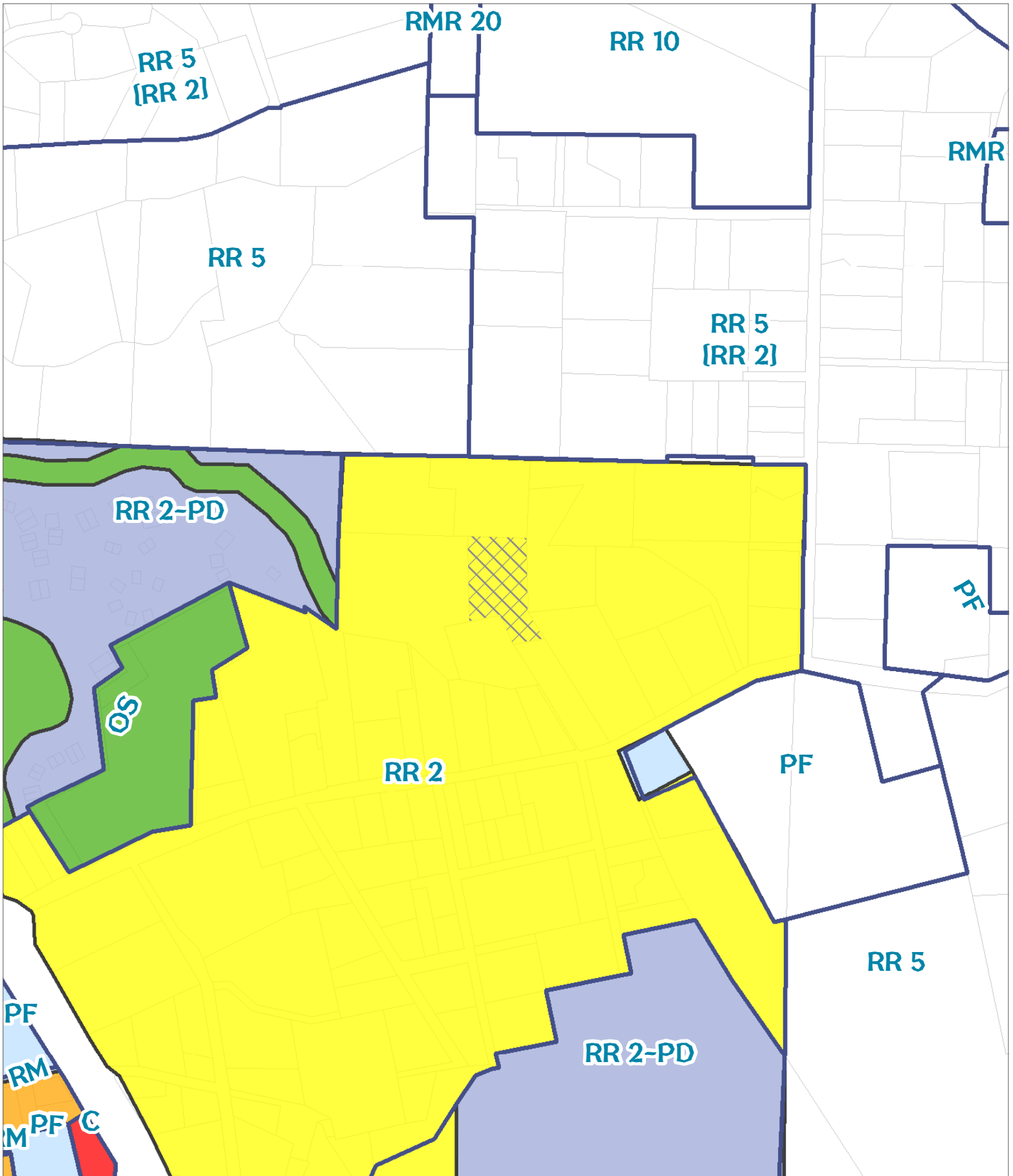
CASE: CDP 2018-0012
 OWNER: SHEPPARD, Noah & Zoe
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 Zoning Districts




ZONING DISPLAY MAP

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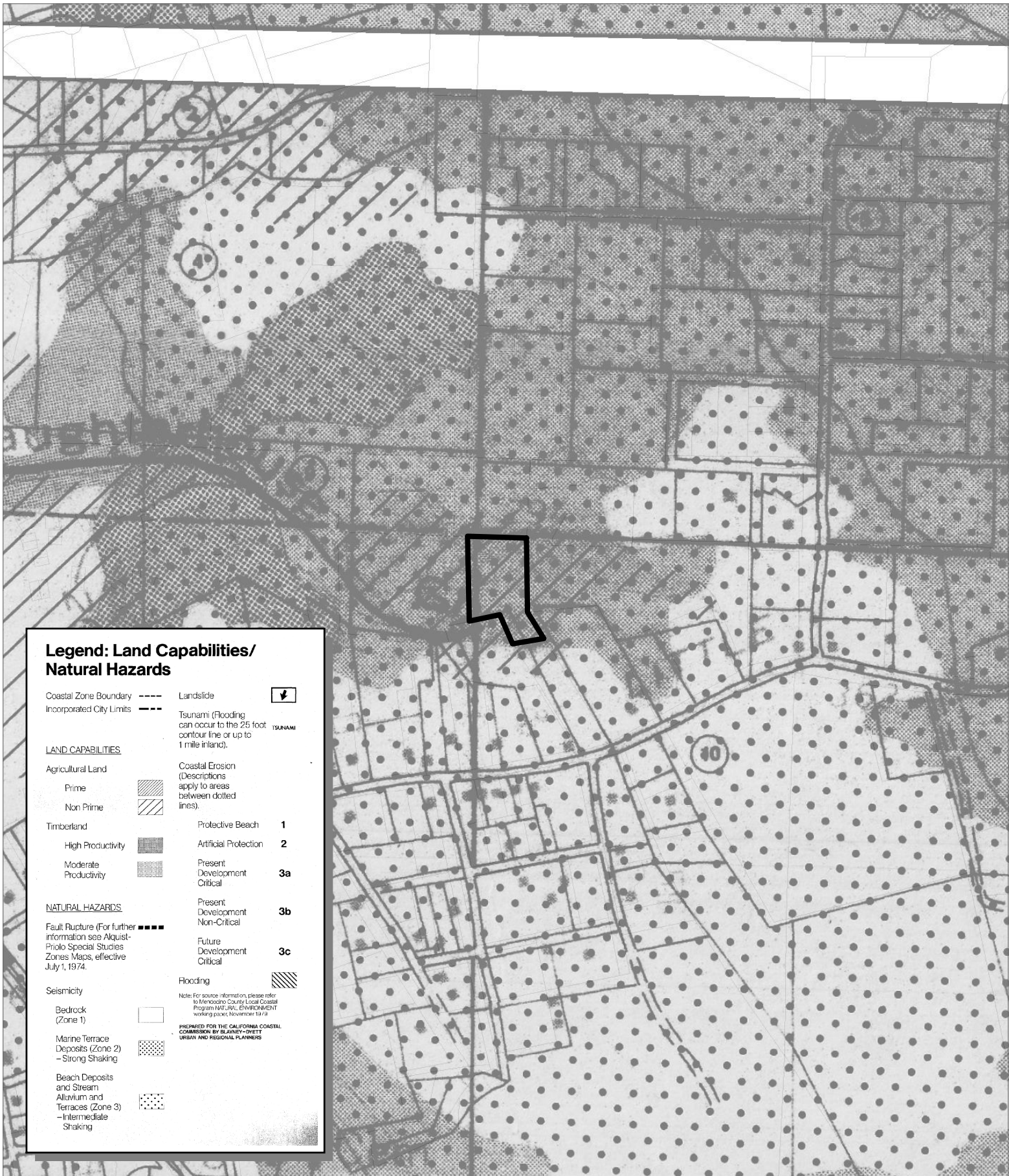


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 General Plan Classes

GENERAL PLAN CLASSIFICATIONS

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Legend: Land Capabilities/ Natural Hazards

Coastal Zone Boundary ---
Incorporated City Limits ---

LAND CAPABILITIES

Agricultural Land

Prime

Non Prime

Timberland

High Productivity

Moderate Productivity

NATURAL HAZARDS

Fault Rupture (For further information see Alquist-Philo Special Studies Zones Maps, effective July 1, 1974.)

Seismicity

Bedrock (Zone 1)

Marine Terrace Deposits (Zone 2) - Strong Shaking

Beach Deposits and Stream Alluvium and Terraces (Zone 3) - Intermediate Shaking

Landslide

Tsunami (Flooding can occur to the 25 foot contour line or up to 1 mile inland).

Coastal Erosion (Descriptions apply to areas between dotted lines).

Protective Beach 1

Artificial Protection 2

Present Development Critical 3a

Present Development Non-Critical 3b

Future Development Critical 3c

Flooding

Note: For source information, please refer to Mendocino County Local Coastal Program NATURAL ENVIRONMENT working paper November 1974.
PREPARED FOR THE CALIFORNIA COASTAL COMMISSION BY BLAVNEY-O'NETT URBAN AND REGIONAL PLANNERS



TSUNAMI



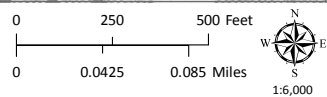
1

2

3a

3b

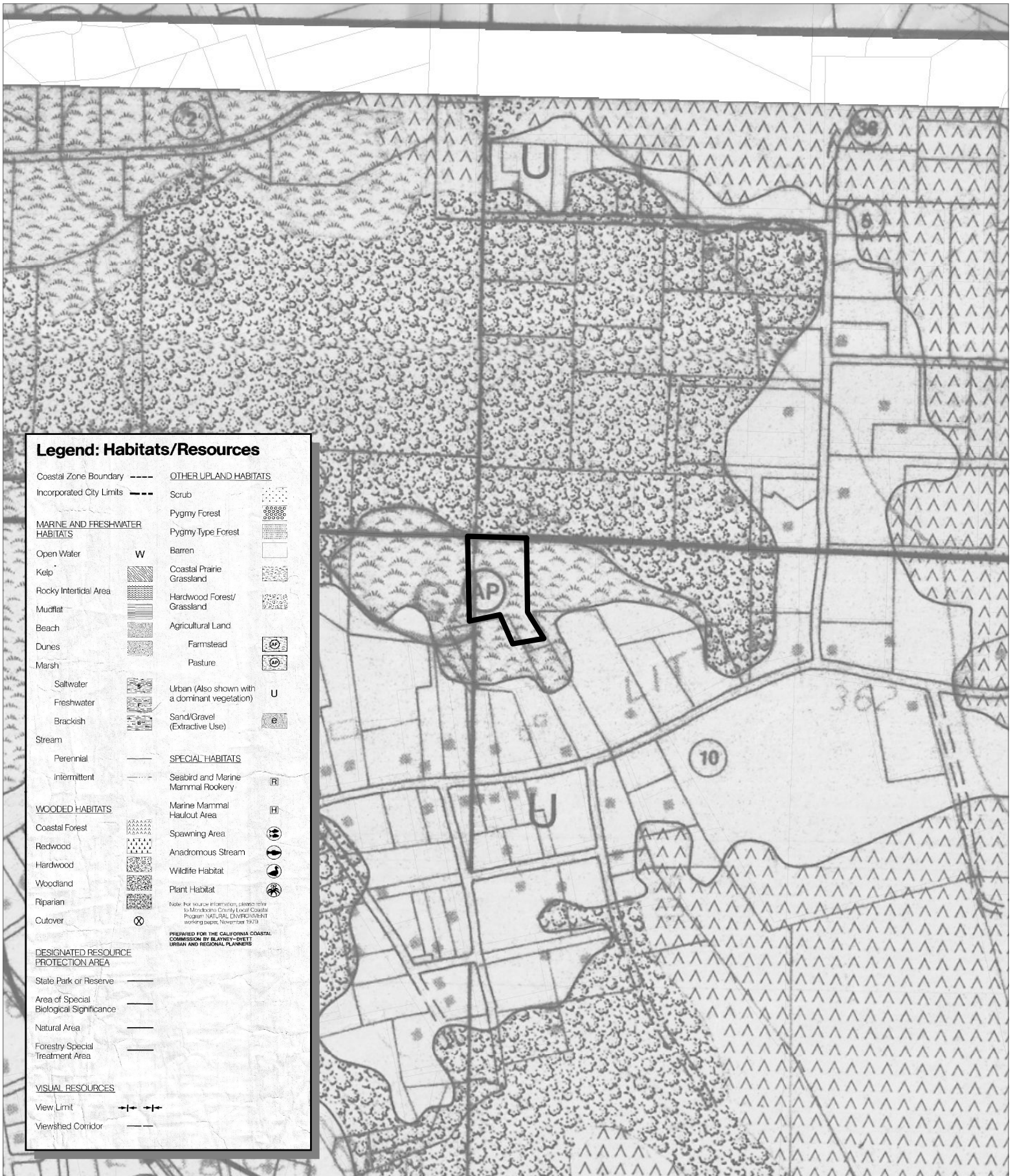
3c



CASE: CDP 2018-0012
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LCP LAND CAPABILITIES & NATURAL HAZARDS

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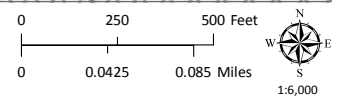
CASE: CDP 2018-0012
OWNER: SHEPPARD, Noah & Zoe

APN: 119-090-46

APLCT: Noah Sheppard

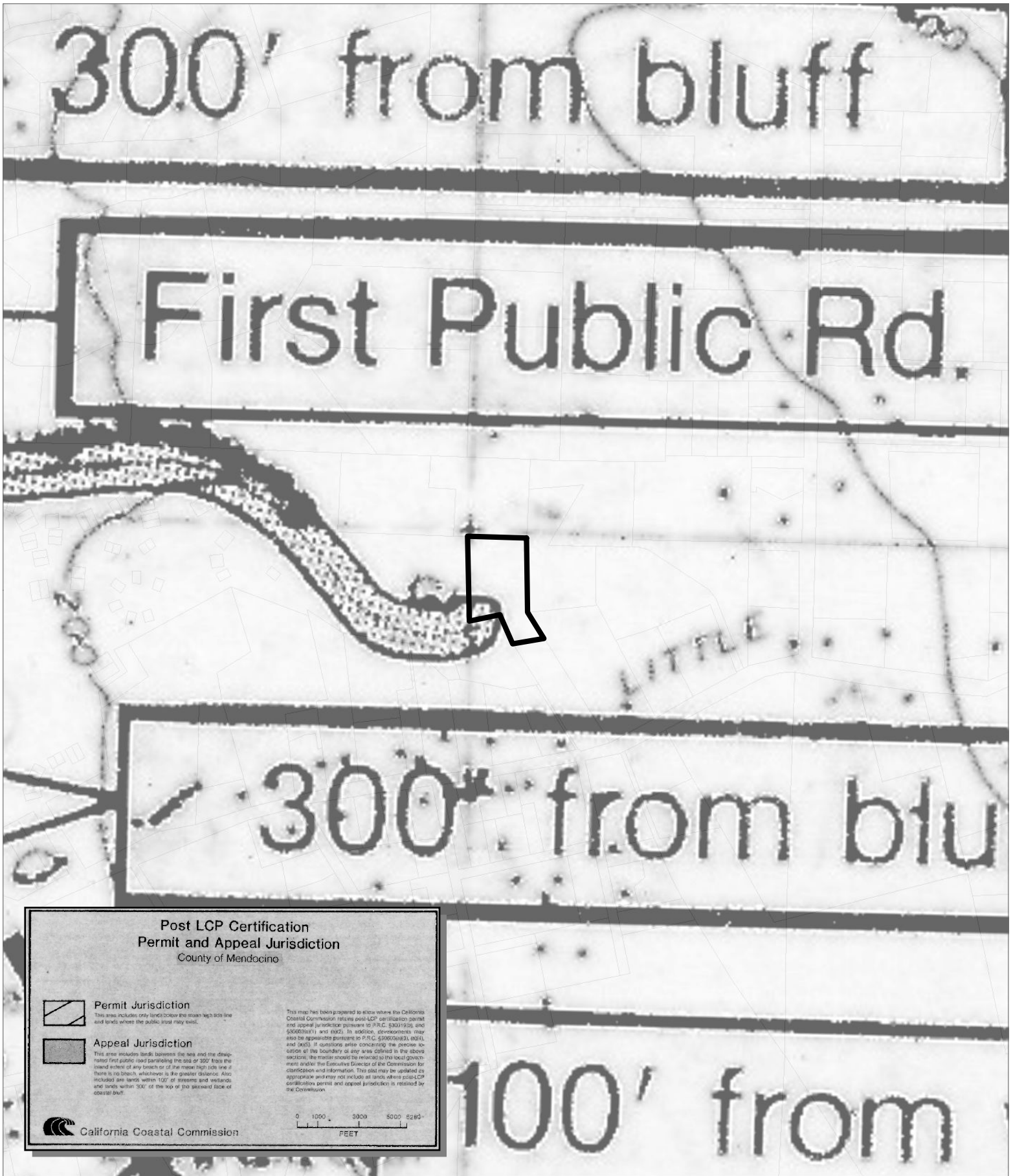
AGENT:

ADDRESS: 10760 Calypso Lane, Mendocino

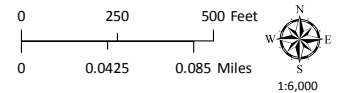


LCP HABITATS & RESOURCES

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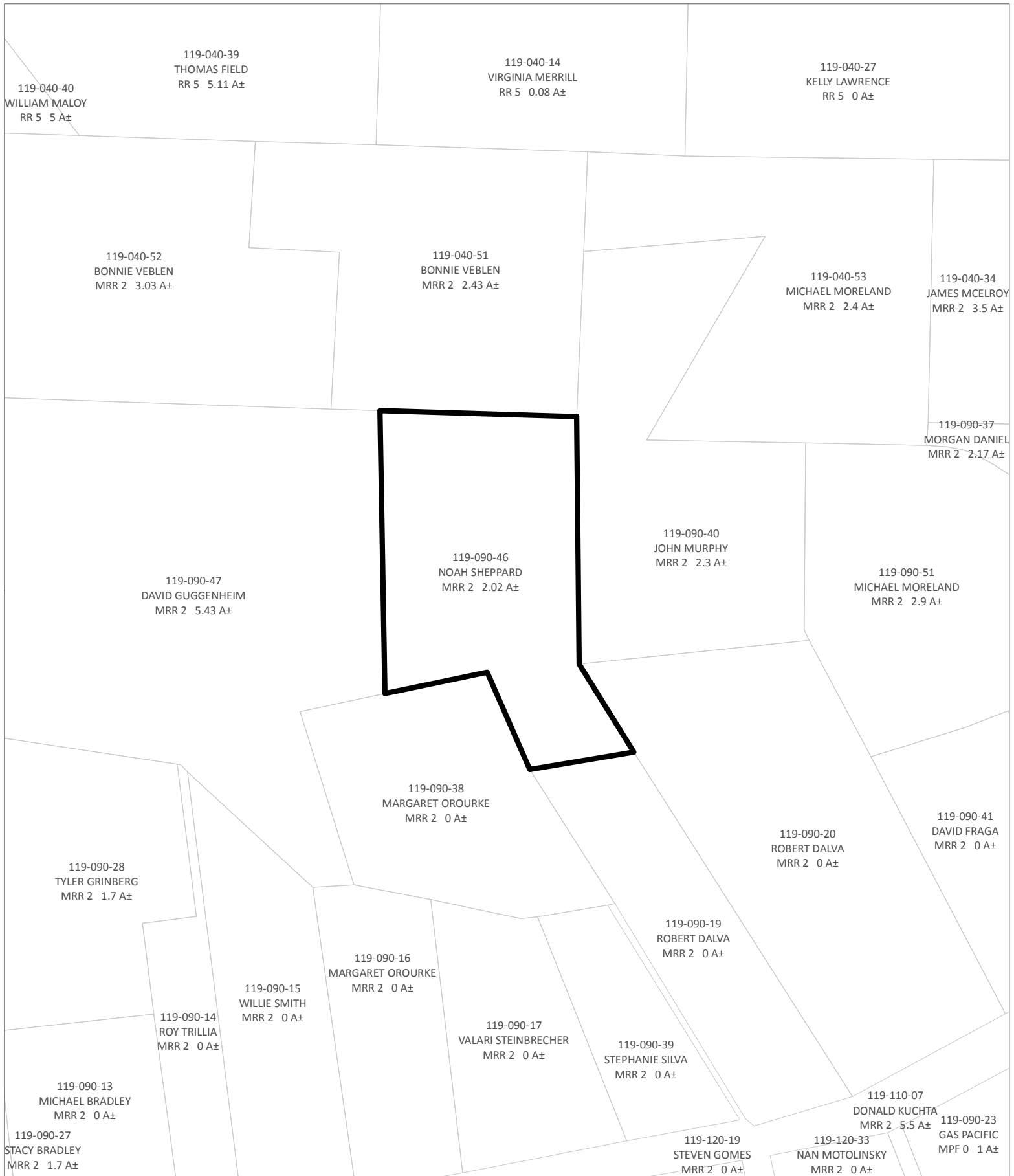


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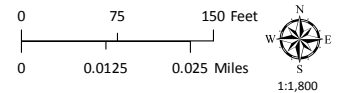


APPEALABLE AREAS

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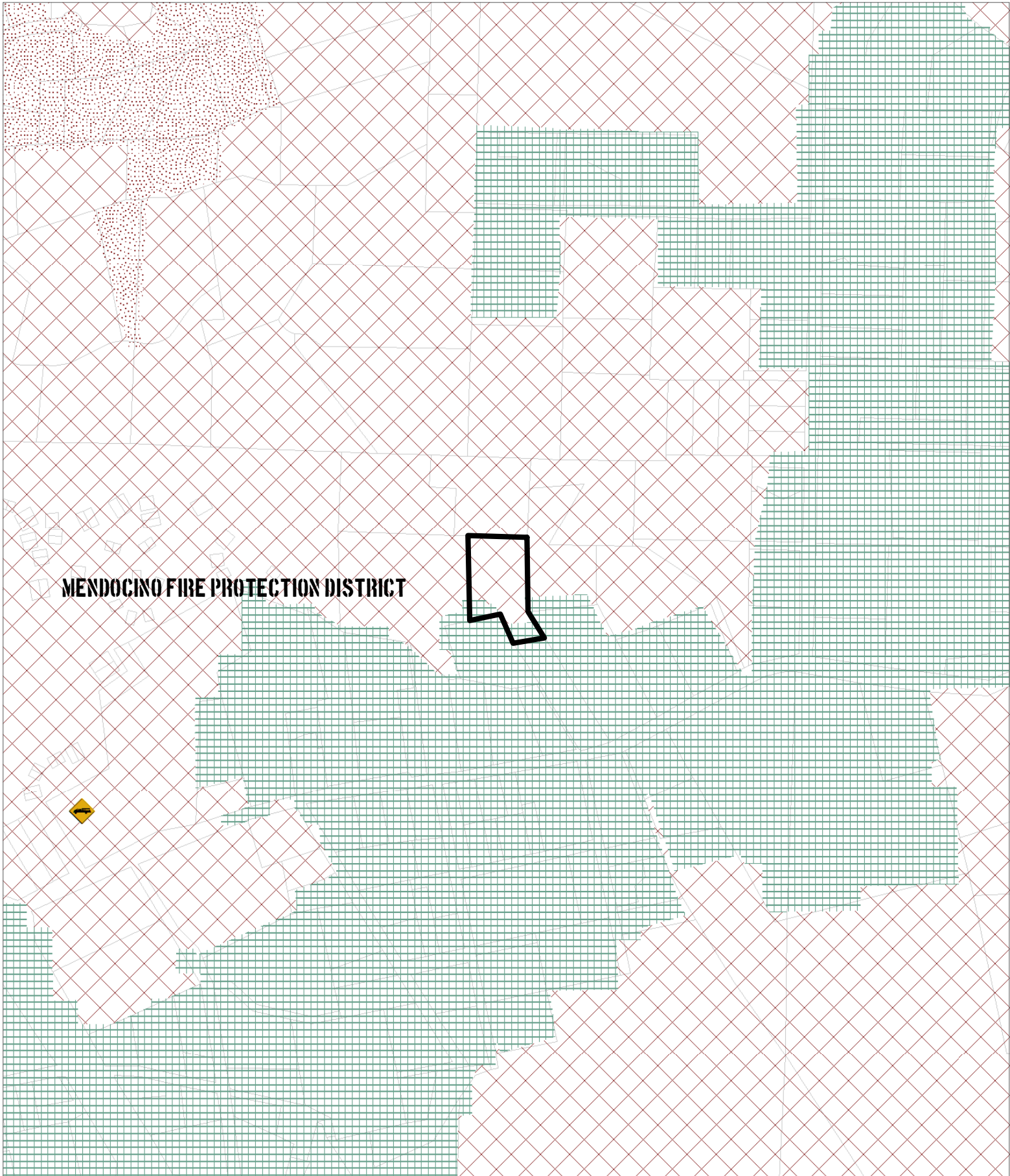


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ADJACENT PARCELS

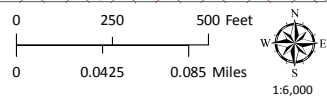
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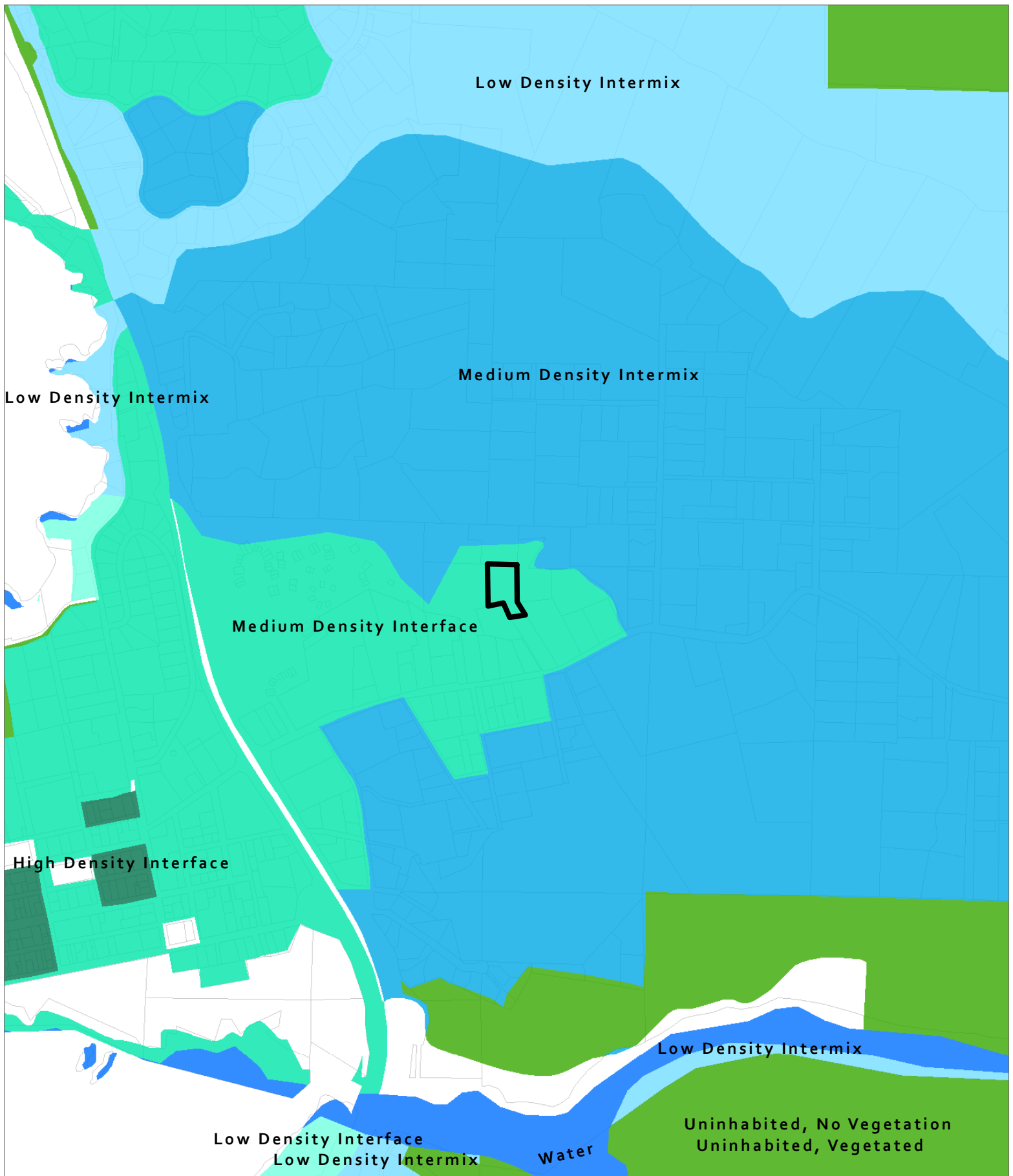
-  Fire Stations
-  County Fire Districts
-  Very High Fire Hazard

-  High Fire Hazard
-  Moderate Fire Hazard

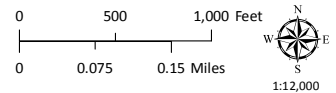


FIRE HAZARD ZONES & RESPONSIBILITY AREAS
STATE RESPONSIBILITY AREA

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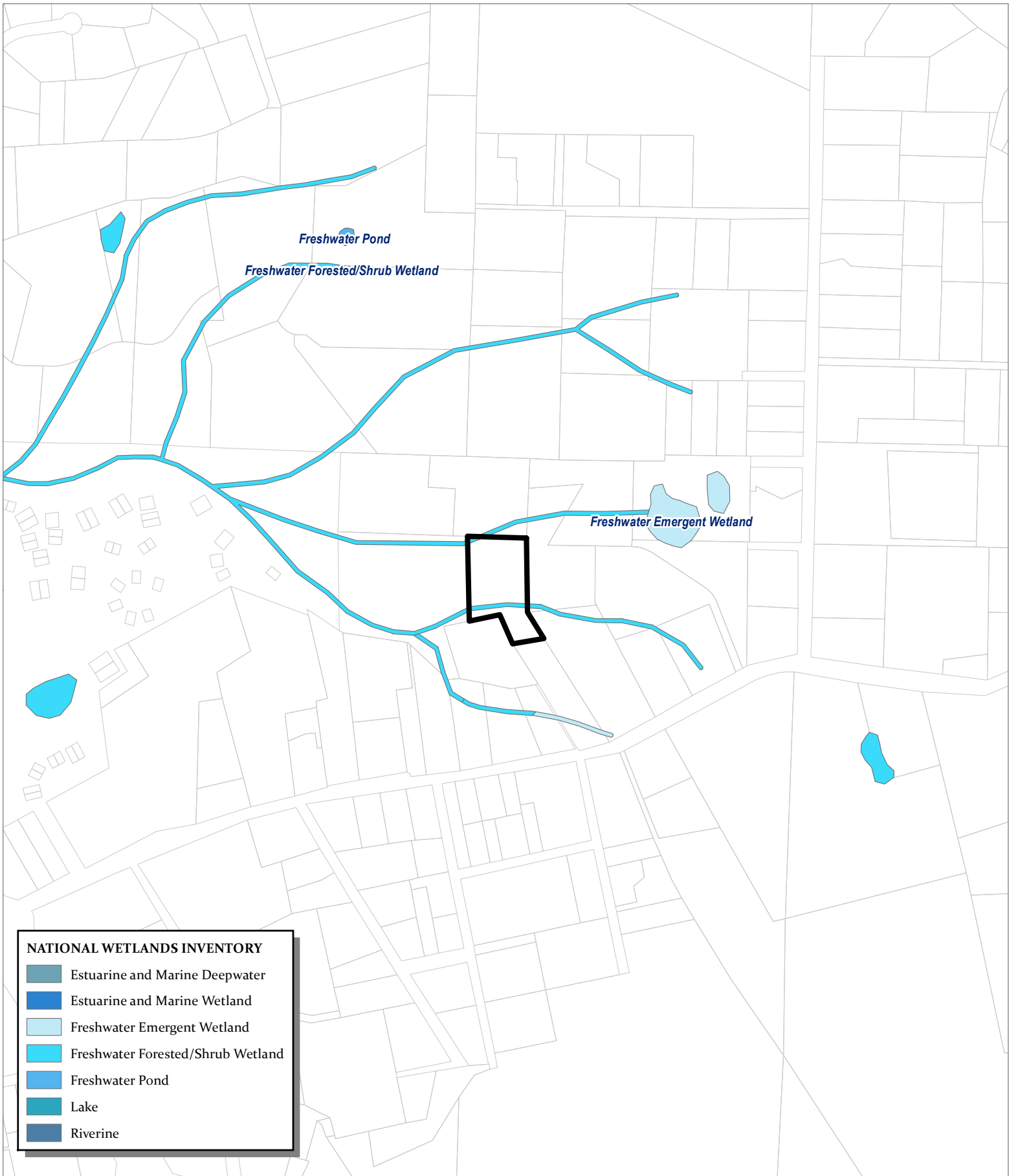
CASE: CDP 2018-0012
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Water

WILDLAND-URBAN INTERFACE ZONES

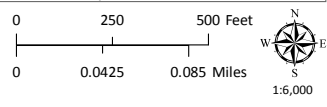
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NATIONAL WETLANDS INVENTORY

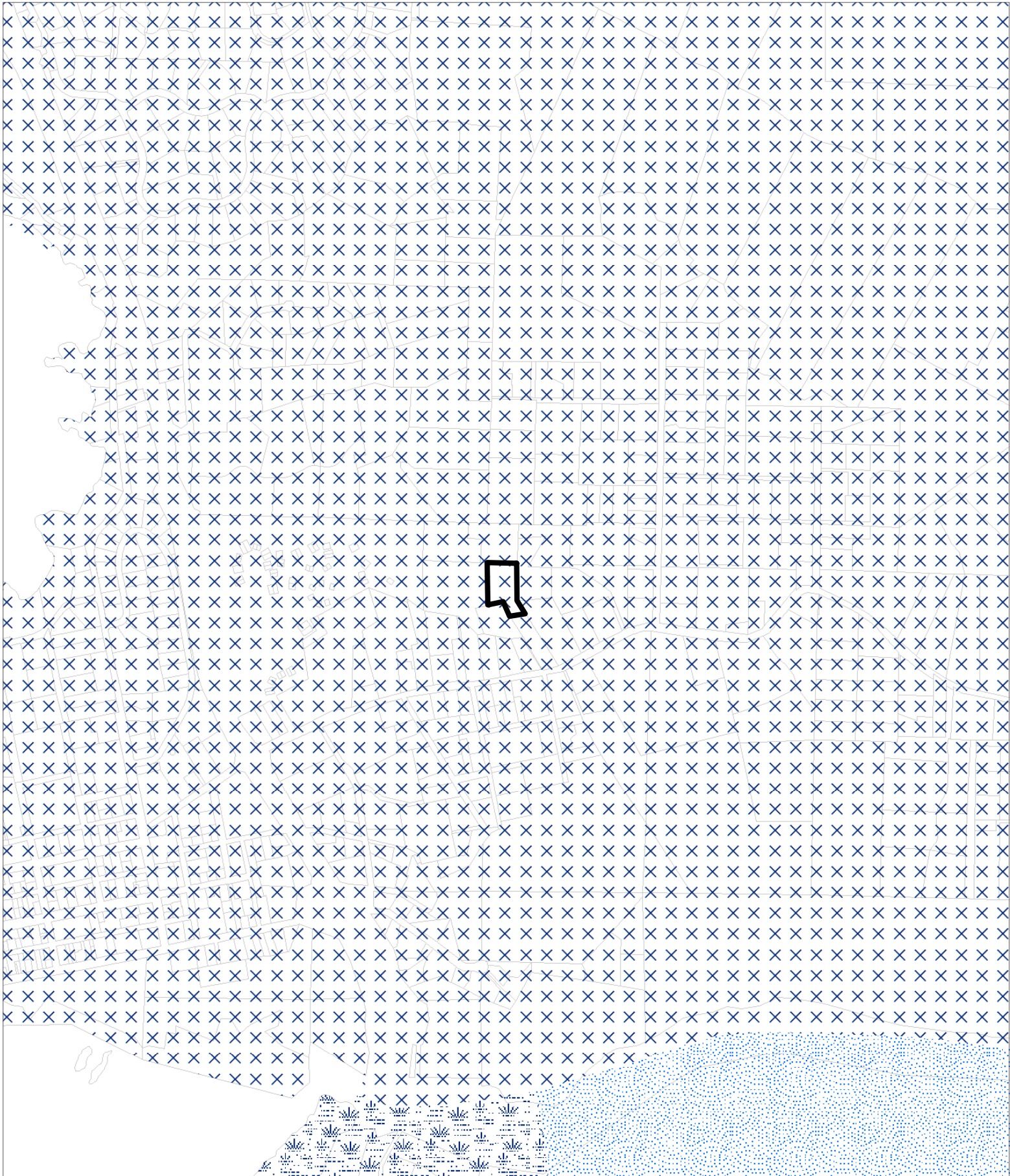
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

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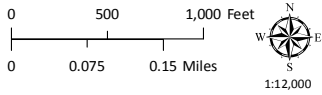
WETLANDS

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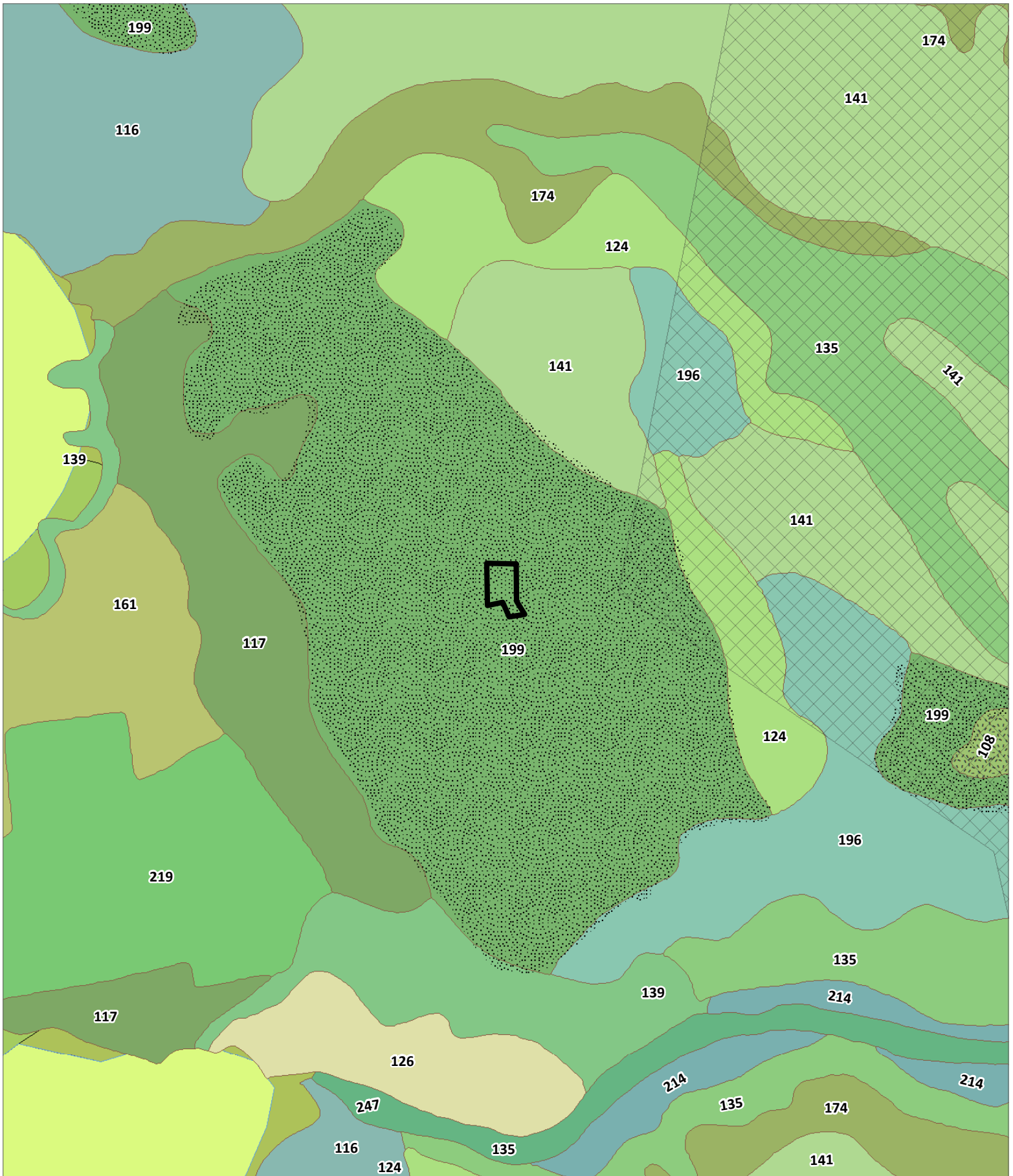
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- × × > Critical Water Areas
- • • Sufficient Water Resources
- • • Marginal Water Resources







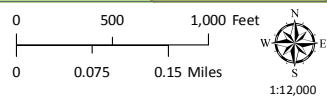
GROUND WATER RESOURCES

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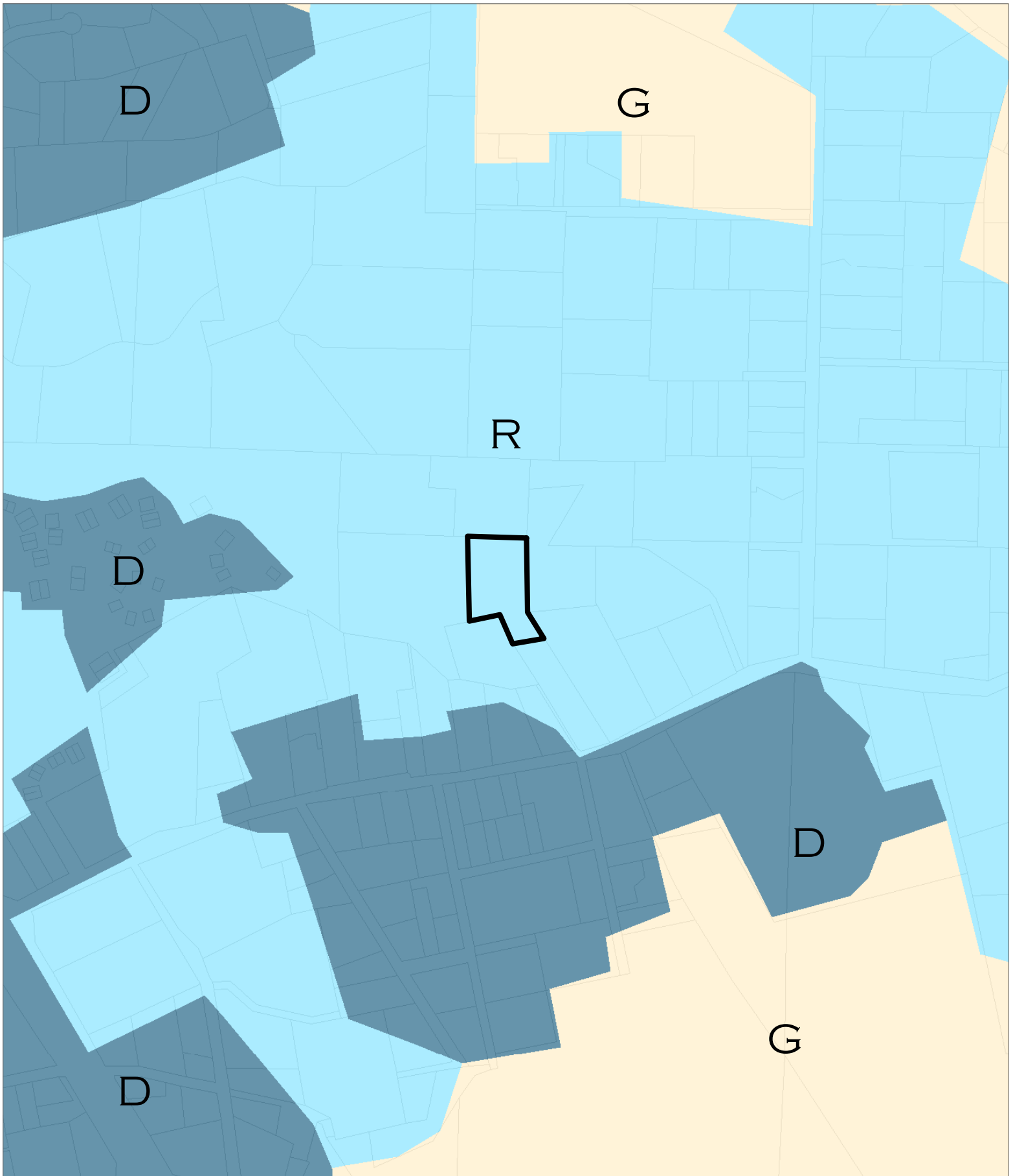
CASE: CDP 2018-0012
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-  Blacklock & Aborigine
-  Shinglemill-Gibney Complex
-  Bishop Pine
-  Western Study Soil Types






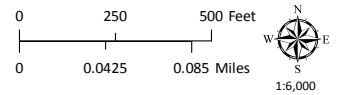
LOCAL SOILS

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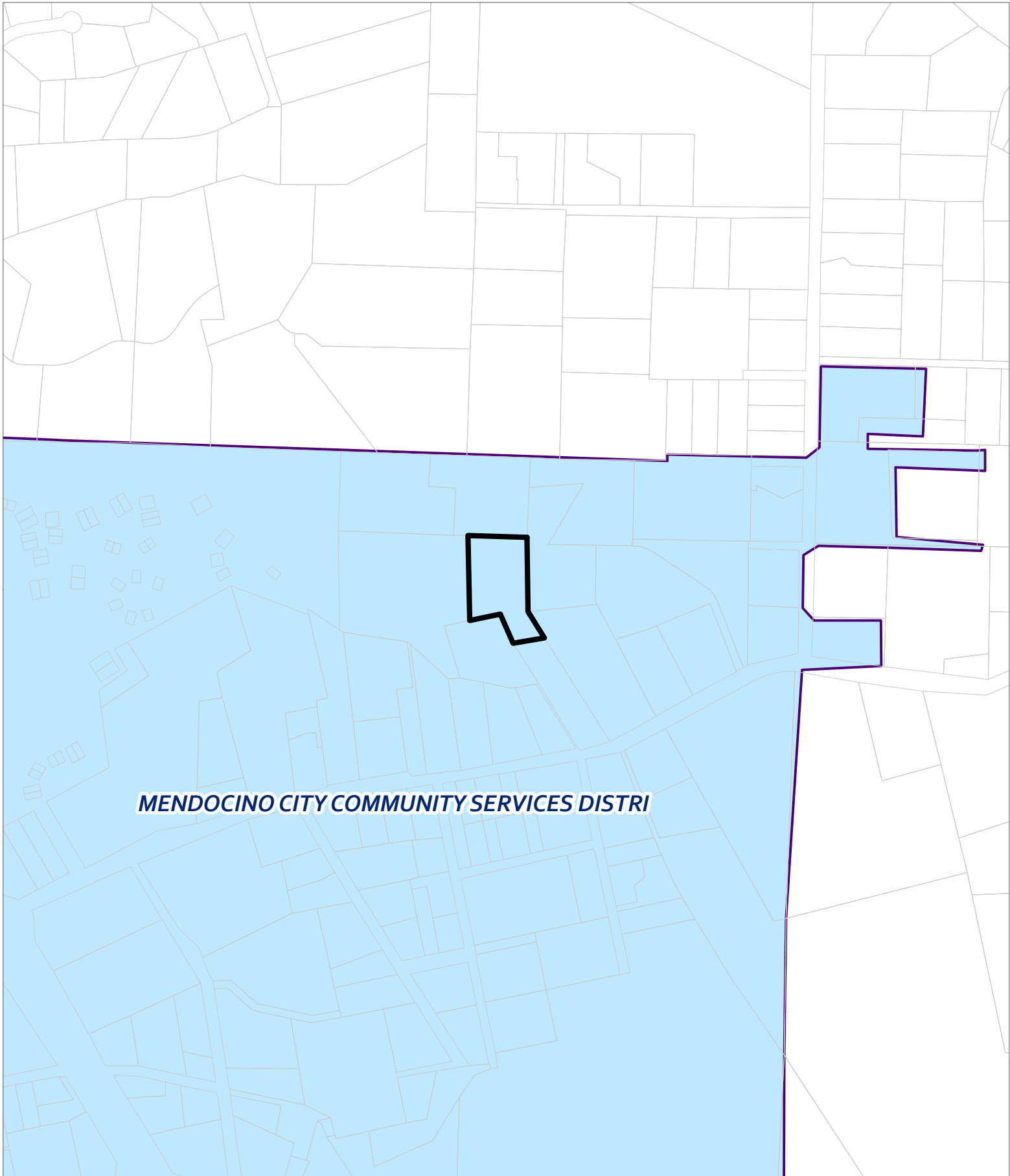
CASE: CDP 2018-0012
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-  Urban & Built-Up Land (D)
-  Grazing Land (G)
-  Rural Residential & Rural Commercial (R)




IMPORTANT FARMLAND

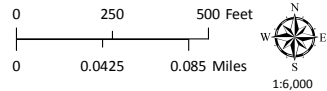
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MENDOCINO CITY COMMUNITY SERVICES DISTRI

CASE: CDP 2018-0012
OWNER: SHEPPARD, Noah & Zoe
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 County Water Districts



WATER DISTRICTS

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